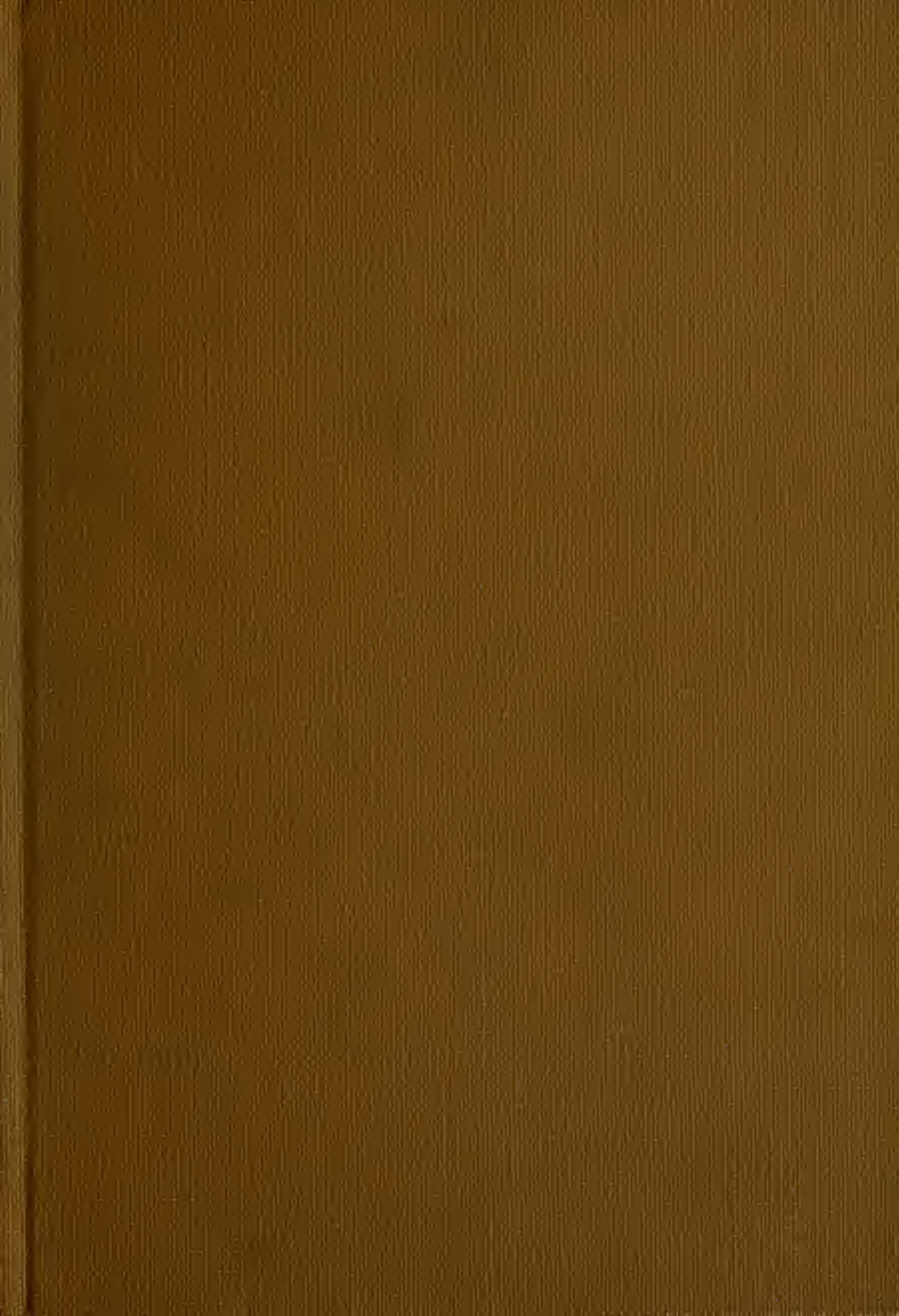




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A Weekly Journal of Medicine and Surgery.

EDITED BY

GEORGE F. SHRADY, A.M., M.D.

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# THE MEDICAL RECORD.

VOL. XIII.

JANUARY 5, 1878.

No. 1.

## Original Lectures.

### FRACTURE OF THE SHAFT OF THE FEMUR IN CHILDREN.

A LECTURE DELIVERED IN BELLEVUE HOSPITAL,

By FRANK H. HAMILTON, M.D.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—Having in my last lecture spoken of the fractures of the shaft of the femur in adults, I now come to speak of fractures of the shaft of the femur in children; that is to say, in persons under twelve or thirteen years of age.

In reference to the pathology of these accidents as occurring in adults or children, there are several points of difference. In adults the fractures are almost always oblique—very oblique; the line of fracture is relatively smooth, and the fragments overlap very much; while in children the fractures are often nearly transverse, denticulated, and not unfrequently, especially in very young children, only partially separated and not at all overlapped—in short, they are apt to partake more or less of the character of a “green stick” fracture. If overlapping occurs, it is usually to a limited extent, because the muscles have so much less power to cause displacement in this direction. The fragments are bent or thrown out of line easily, but there is little or no displacement in the line of the axis of the bone.

With these facts before us, we shall understand that the indications of treatment differ considerably in the case of the adult and of the child. Surgical writers have not sufficiently considered these differences, but they have generally said, or left it to be inferred, that the same plan of treatment was applicable to both, and that the prognosis did not differ essentially. I do not think so. The indications are, in fact, in some sense reversed. For while in adults the first and most difficult indication is to overcome the shortening occasioned by the obliquity of the fracture and the powerful action of the fully developed muscles, and the second is to keep the limb in line—here, in the case of children, the first and most difficult indication is to keep the limb in line, and the second is to overcome the action of the muscles, or this second indication may not be present at all.

Let us look at the usual modes of treatment of broken thighs in children, and see whether they are suited to these changed conditions.

The *double-inclined plane*, the thigh being flexed upon the body, shortens the already very short limb, and in many cases the plane of the splint does not support or take hold of the upper fragment at all. These fractures in children are generally near the middle; but even when they occur lower down, the space between the fracture and the groin is too short to allow the thigh-piece of the splint to give adequate support. All the lateral or coaptative splints are subject to the same objection in children, especially when the limb is flexed. I have tried these machines often in my

earlier experience, and they gave me infinite trouble and disgust; they had to be readjusted daily, and if I got a good result it was a mere matter of accident.

The *plaster-of-paris* dressing, in which we put the limb always in the straight position, has also serious objections, especially in the case of infants. In proportion as the child is younger, the danger of strangulating the tissues and causing gangrene is greater; indeed, it is in children that most of these terrible accidents have happened from tight bandages. Their tissues are soft and yielding, and bandages of any kind, whether made of dry rollers, plaster-of-paris, paste-bandages, or anything else, applied with sufficient tightness to support the bones (which lie deep under these soft tissues), will be liable to cut off the venous or arterial circulation. The veins and arteries will feel the pressure before the bones do. For this reason they cannot be applied with sufficient firmness to give the requisite support. Besides this they are liable to the same objection, as in the case of adults, that the limb will shrink, and they will soon be loose and have to be renewed. They soon become soiled in the groin by the urine, and they become fouled by the fæces. Nor can any amount of ingenuity and care generally prevent this. The urine gets under the splint and causes excoriations of the delicate skin, and the little sufferers are in torment until it is removed.

The *straight position, with short side or coaptation splints, and the single long side splint, with pulleys and weights*, or such an apparatus as we have found best for adults, fails again in the case of infants and children. Imagine an infant three or four years of age, in an apparatus of this sort, with his left thigh broken. His right thigh and leg are free, and he can and will put it where he pleases. He will throw it over his broken leg, draw up his foot and roll himself over, and thrash about constantly, for there is nothing to prevent it, and this is the nature of a child. In doing this the fragments are constantly disturbed and a vicious union is likely to occur.

I believe we have found a better method than either of these—a remedy for most or all of these evils, in the apparatus which you now see before you, and which is the result of my own experience, aided by the occasional suggestions of my pupils.

This child with a fracture of the right femur is dressed as follows:

*Dr. Hamilton's method.*—Here are two long side splints, each about four inches wide and half an inch thick, extending from within two or three inches of the axillæ to four or five inches beyond the bottom of the feet. At the lower extremity these are united by a cross-bar, of such a length that when the splints are pressed against the sides of the body, they—the splints—shall be separated from each other farther at their lower than their upper extremities, by two or three inches. This is an arrangement suggested to me first by Dr. Frank H. Bosworth, while he was my house-surgeon, to prevent in some measure the child from wetting the dressings, by keeping the legs a little more asunder.

The two long side splints must be well padded to fit all the inequalities of the sides of the body and limbs. Thus prepared, this double splint is laid

upon the bed enclosing the body and legs of the child. The sound limb is now secured by successive turns of the roller, from the foot to the groin, to the corresponding long splint. Then the broken thigh is extended to its proper length, and the corresponding foot and leg are secured by a roller to the long side splint. It is better to do this before applying the short or coaptation splints to the thigh. Indeed, I sometimes omit these latter for a few days, or until the little patient has recovered in some measure from the bruises and swelling which is apt to accompany the fracture; but I will suppose you have found it proper to proceed at once to apply the coaptation splints, as they are applied in this case.

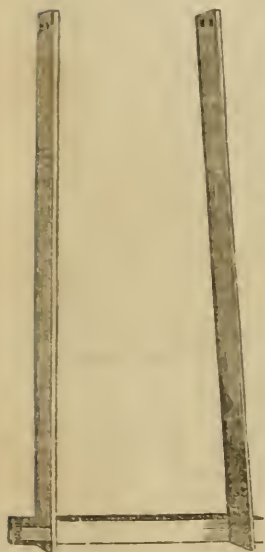


FIG. 1.—Dr. Hamilton's double thigh splint, for children.—From *Treatise on Surgery*.

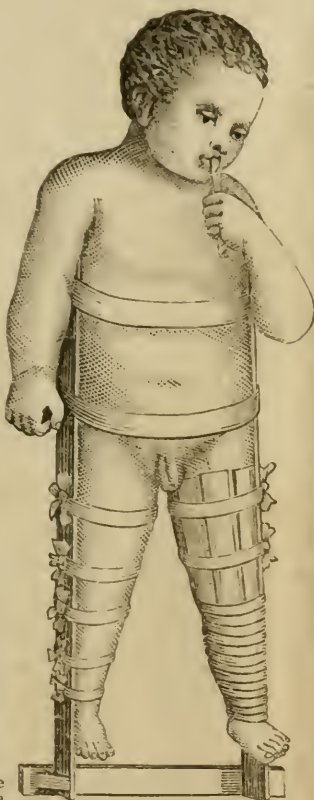


FIG. 2.—Same applied.

The coaptation splints, three of them, may be made of binders' board, thin pieces of wood—a shingle, for example, or of cloth felt, such as I have used during the last few months a good deal. This is not the felt made of woollen, of which I have spoken in my *Treatise on Fractures*, nor is it the felt manufactured from wool; but it is a material used by batters to make the rims of a certain class of summer hats. It is made of cotton cloth, four or six thicknesses, and gum shellac.

I find it at the manufacturer's, Mr. J. M. Holley, No. 77 Greene St., in this city, already made, and it costs about two or three dollars a square yard, according to the thickness. It is capable of being moulded a little more than pasteboard, under the application of heat. For many purposes I like it very much.

The top splint, or front splint, must extend from the groin to half an inch from the patella. It never should touch the patella. The outside splint

should extend from the top of the trochanter major to the external condyle, or lower if the fracture is low down, and the inside splint from the groin or near the groin to the internal condyle. Under each splint of felt or binders' board lay a piece of sheet lint a trifle larger than the splint, or a piece of woollen cloth. In the case of very young children I omit to sew a cover upon these splints, because they are apt to get soiled and need to be changed often. You have prepared three splints, one for the front, and one for each side; but you must not omit the fourth splint, which is the back splint. This must be firmer, wider, and longer than the others, and must be made of heavy sole-leather or of wood, or, if anything else is used, it must be firm. The limb is to rest on this as a sort of bed, and it ought to extend from just below the tuber ischii to three or four inches below the knee. It should be carefully padded to fit the inequalities of the limb, and covered with cotton cloth to keep the padding in place, and to fasten the circular bands to it. The upper end, for three or four inches, or more, may be covered with oiled silk. Now stitch the centre of six or seven strips of cotton cloth, each about one inch in width, to the back of this fourth splint, and put all the splints in their proper places, bring the strips to the front and tie them in bow knots, over the front splint. Do not include in these strips the long side splint. If you do there will be danger, when the body sinks upon the bed, that the thigh will bend at the point of fracture. In both my work on *General Surgery* and in my *Treatise on Fractures*, the broken thigh is shown as bound to the long side splint. A later experience has taught me that it is not always well to do so.

It remains for you, gentlemen, to pass a broad band around the body, near the top of the long side splints (including the splints), and another broad band under the nates, leaving a hole for defecation. The upper band keeps the child in the recumbent position, and supports his back when he is taken up. The lower one only supports the nates and thigh when he is taken up, and if fastened on each side (stitched) to the long splints, it need not pass in front of the body. You may have to change this occasionally.

For many cases the apparatus is now complete; but in most cases it is safer to employ a perineal band, carefully made, soft and flat, and which may be passed through either perineum—it is not very material which—and made fast to the top of the corresponding long splint. For this purpose you can fold a two-inch roller longitudinally, inclosing, where it passes through the perineum and under the nates, about six folds of paper, with a little cotton batting on the side to be laid against the skin. Stitch this properly, and before laying it against the perineum, protect the parts with a strip of sheet lint. The object of the folded paper is to prevent it from crumpling and making a sharp cord. This perineal band is to be kept only moderately tight, and may be loosened and changed as often as you please. I repeat that sometimes it is not needed.

You have now an arrangement by which you can keep the broken limb in a straight line and quiet, and in which you can remove the patient at any moment, and change the bed. You can, if you choose, take him out of doors.

In children five or six years of age, or older, if necessary, you can add to this extension by a pulley and weight, using about three pounds for a child of four years, and one additional pound for each additional year of life.

I have taken a great deal of pains, gentlemen, to



describe all the details of this dressing, because upon these details, in a great measure, your success will depend; and I repeat that, of all the various means I have tried, none have served me so well as this, and I have used this very often for a long time. My friends have been uniformly pleased with it, so far as I am informed, and Mr. Erichsen told me when in New York that it was used very satisfactorily in some of the London hospitals.

Don't omit, gentlemen, to look daily after the back splint, and see that it is in place.

Fortunately, these bones unite quickly (generally in three or four weeks); but it is prudent to keep on the apparatus five or six weeks, and not even then to allow the child to walk. If you follow my directions carefully, and take the proper pains—looking after your patient daily—you will always get straight legs, and in most cases there will be no perceptible shortening, and what little may occur will never cause the slightest halt in the gait. This has been my uniform experience since I began to use this dressing, and I have used it now for more than twenty years.

NOTE.—Dr. K. of this city has just informed me that he had occasion a short time since to assist Dr. W. in dressing a simple fracture of the thigh in a child three years old. The plaster-of-paris dressing was applied in the usual manner, and when removed, at the end of four weeks, the bone was found united, with a shortening of two and a half inches, and very crooked. During these four weeks it had been once removed and reappplied.

I venture to say that, with the plan of treatment described in my lecture, such a result would have been impossible. Indeed, I might almost say that such a result would have been impossible with any other plan of treatment than the plaster, or such as would conceal from the surgeon a knowledge of what was transpiring.

## Original Communications.

### THORACENTESIS.

By CHARLES W. PACKARD, M.D.,

ATTENDING PHYSICIAN TO ST. LUKE'S HOSPITAL, N. Y.

THE operation of thoracentesis that now comes to us as something almost new, is as old as the time of Hippocrates; but it is only recently that it has been practised to any considerable extent. In fact, until Laennec's discovery of auscultation, it was impossible in a given case to determine the existence of fluid in the chest; and probably the operative procedure, before his day, consisted merely in opening into an effusion that was already pointing externally. About 1840, Trousseau brought the operation fairly before the medical world, and practised it in a large number of cases, and with a good degree of success; but the general voice of the profession on the Continent and in America united in denouncing it as dangerous and unwarrantable.

It was reserved for two American physicians to devise and perfect the present accepted operation of thoracentesis by aspiration. Dr. Henry I. Bowditch, of Boston, writes: "In 1850 occurred my first case, in which Dr. Morrill Wyman used the exploring trocar and canula with suction-pump attached, and which I immediately saw was the apparatus I had long sought for. That apparatus I have modified somewhat, so as to make it, I think, more convenient; but the principle of the instrument remains as suggested by Dr. Wyman." Twenty years after this date, Dr. Bowditch says, "I have tapped at least 250 times on 155 persons." Trousseau used a simple trocar, and made no special effort to keep air from entering the pleural

cavity, while Bowditch's operation is an *aspiration*. As the results of this new operation have become known, it has grown in professional favor, until it is now accorded its place among the potent instrumentalities for the saving of health and life.

The following cases may serve as an illustration of some of the conditions under which the operation is indicated:

In April, 1869, I saw Mrs. —, aged 48, who had been suffering from a pleuritis of the left side for about ten days, when she was suddenly seized with dyspnoea. The physician in attendance had diagnosed the presence of an effusion some days before, but the patient had not been oppressed by it, and no special anxiety was felt in the case until the sudden attack of dyspnoea, accompanied with great anxiety.

She declared that she was dying, and so impressed her husband with this belief, that, although he was a very phlegmatic man, he would hardly wait to tell me that she had "a pleurisy, with water on the chest," and that he wanted me to see her with the doctor immediately. Putting a Bowditch's trocar in my pocket, I reached the patient within half an hour from the coming on of the seizure. She appeared to be dying. Her whole aspect was that of a *dying woman*. She was livid, cold, covered with sweat, gasping for breath; her pupils were dilated, and she was half unconscious from carbonic acid poisoning. I verily believe that she was in the article of death, as one is who is nearly drowned, but who may be rescued if instantly brought out of the water and into the air. Here was a woman drowning—not from being in water, but from having water in her; and, to continue the paradox, she was to be rescued, not by taking her out of the water, but by taking the water out of her!

The left pleural cavity seemed to be full of fluid; the indication for treatment was plain, and the necessity most urgent and instant. In a moment a trocar was thrust into the pleural cavity, in the axillary line, and between the sixth and seventh ribs. The patient did not seem to feel the puncture; but, as the serum flowed away, she began to regain her color, and before the operation was completed, she moved herself in her chair from her half-reclining posture, and sat bolt upright. Her pulse had returned, and her respirations grew regular and easy. The heart had been pushed over to the right side by the accumulated fluid, and as this was drawn off, it was interesting to watch the reducing dislocation, and also to follow the re-expanding lung. After 104 oz. had been removed, the instrument was withdrawn, and the patient expressed herself as being entirely relieved; and, in the reaction of feeling, she was almost jocose over her escape from impending death. The whole scene was to me most dramatic. In a recent letter to Dr. Bowditch, I narrated this case, and in reply he says: "As I look back now, and under the light of your case, I regret that I did not plunge a trocar into the side of a little child who had just ceased to breathe, and then restore the patient by artificial respiration." There seems to be no reason why such an effort at resuscitation may not be successful. After drowning, we try by artificial respiration to restore life, if we think there is a spark left that may happily kindle; and why not after drowning from pleuritic effusion of recent standing, where the lung has not been long compressed, and where adhesions have not had time to grow strong enough to hinder the ready expansion of the lung directly it feels the pressure of the inspired air? We can readily see how an intense pleuritis of long standing may cause an effusion and



exudation so great as to completely compress and tie up the lung, so that it cannot expand; but even then the withdrawal of the fluid may enable the heart to resume its normal position, and so straighten out the twists in the large blood-vessels. The mere dislocation of the heart must more or less impede the free passage of blood through its chambers and through the large vessels directly connected with it, and this fact, no doubt, offers an explanation of some of the causes of fatal syncope in pleurisy with large effusion. In this connection, it is well to remember that patients show a varying degree of tolerance in bearing cardiac displacements, as they do in bearing pleuritic effusions. I recall the case of a man who was steward of a vessel, and who had an enormous effusion on the left side. His heart was pushed over and upward until it beat at the third rib and on the line of the right nipple; and yet he had no dyspnoea to speak of, and was able to do his work. He refused to be aspirated, and walked away to resume his duties on shipboard. I warned him that he was in danger, but he felt so well he would not believe it. Experience has shown that no one is safe from a sudden and fatal syncope who is suffering from a pleurisy with effusion. I knew a young physician who was convalescent from pleurisy; the effusion was abating, the fever had left, and he felt so well that he insisted on exerting himself so far as to walk to the carriage that was to take him for a drive. He reached the carriage, but in trying to get in he faltered, and was dead before he could be carried into the house. An autopsy was made, but nothing disclosed except a moderately large effusion. How thorough the examination was I do not know, nor whether the heart and large vessels were examined *in situ*. Among the causes of sudden death as a result of large effusion, no doubt the displacement of the heart and pressure upon the large blood-vessels stand first. The normal axis of the heart may be so changed by the pressure as to have the apex point away to the right and upward towards the axilla. In such a case, all of the large vessels entering and leaving the heart must become so twisted as to more or less interfere with the direct currents of blood; and this may be disastrous in two ways. In the first place, the blood passing from the heart to the lungs to be aerated, is received and aerated almost entirely by one lung, the affected lung being so compressed that very little, if any, air enters the air-cells; and its blood-vessels are also so compressed that almost no blood finds its way through them. As a result, the sound lung has to do double duty, and deal with twice as much blood as it was equipped to do; hence, it becomes overtaxed and congested, and the patient is in constant danger of the super-vention of œdema from congestion in the sound lung. The above state of things must always exist whenever there is enough effusion to compress the lung to any considerable extent. Now, add to this disturbed circulation in the sound lung another disturbed circulation in the large blood-vessels, so that the blood is sent to and received from the lung imperfectly and irregularly, and it is easy to see how vastly the danger of œdema is multiplied, and œdema of the sound lung under such circumstances may be a fatal complication, and is not unfrequently the direct cause of death.

But not only is there danger of death from œdema, but of fatal syncope from cutting off the current of blood on its way to the heart, and so imperfectly filling that organ with blood. Fraentzel states that the ascending vena cava, particularly "where it perforates the central tendon of the diaphragm to reach the pericardium, and where it is firmly attached to the

margins of the quadrilateral foramen, may through the displacement of the heart suffer an almost rectangular twist." This author quotes several autopsies in which he has observed this condition. They all occurred in left-sided effusions, for reasons that are sufficiently apparent. These facts carry with them the practical lesson that patients with effusion must be kept from exertion or sudden movements of the body, which might drive the diaphragm upward, and thus still further compress the already twisted ascending vena cava, and so suddenly shut off the supply of blood to the heart.

The following case presents a somewhat rare history:

Margaret M., aged 24, Pa., married, of very stout habit, was admitted to St. Luke's Hospital, July 8, 1875, and gave the following history: she had enjoyed good health until six weeks before admission, when she was taken with a severe cold, accompanied with fever, cough, and pain in the right side. A physician visited her, and after examination said she had "a severe bronchitis." He continued in occasional attendance for three weeks, during most of which time she was so weak as to stay in bed; besides which, it "put her out of breath to move about." Suddenly, one night, and three weeks before she entered the hospital, she was seized with agonizing pain in the affected side, and instantly became unable to breathe. The family were summoned, and she was believed to be dying. She became cyanotic, but gradually the urgency of her symptoms subsided, and she was brought to the hospital. When I saw her she was evidently in a bad way. Her pulse was 125, R. 40, T. 105°. She was moderately cyanotic, and was constantly expectorating pus, pure and simple, and in immense quantities. It came up more as a regurgitation than as an expectoration, and in quantity amounted to pints—two or three—in twenty-four hours. It filled her bronchial tubes so fast that she was constantly coughing in order to free them, so that she could breathe. She had been discharging pus in this way for several days, and the constant necessity for expectoration had forbidden her to sleep, day or night, and she dared not lie down for fear of suffocation. On inspection the right side was seen to be distinctly bulging and was somewhat œdematous, and she presented all the well-known signs of effusion. There could also be no doubt that this effusion was purulent; nor, considering the amount of pus expectorated, that somewhere there existed an open communication between this collection of pus and the bronchial tubes. It was also evident that the connection was a free one, for she pumped up the pus as if from a well.

On July 12th I passed the needle of a hypodermic syringe between the eighth and ninth ribs, on a line with the angle of the scapula, but got no fluid, owing to the thickness of the chest-wall. I then punctured at the same spot with a Bowditch's trocar, and drew off sixty-four oz. of laudable pus, thick, and of a greenish tinge; suddenly the pus stopped flowing, and air was pumped out instead. Upon putting my ear to the chest, I heard air rushing from the lung into the pleural cavity with a roaring and loud noise, which ceased as soon as the pleural cavity was filled with air. By my operation I had relieved my patient of more than a quart of pus, but air had taken its place, and she had a pneumopyothorax instead of a simple pyothorax. The air in the pleural cavity proved, however, to be a much quieter tenant than the pus, and for three days the patient was almost entirely relieved from her distressing and constant cough and expectoration. This gave her an opportunity to sleep,



and she also took some food with relish. On the morning of the fourth day the cough and expectoration had begun again, and were as great as ever. I had already determined that any further mere aspiration would be useless; for although by this operation she could be relieved of a part of the pus, still it could not all be pumped out, and the residue would soon become ichorous from contact with air in the pleural cavity, and prove an added source of irritation, and perhaps of septicaemia. In accordance with this view, and with the concurrence of my colleague, Dr. Jas. R. Leaming, who saw the case with me, I proceeded to make a free incision through the chest-wall, between the sixth and seventh ribs and in the axillary line. This location was selected because we judged that here the adhesions were less abundant than at the posterior part of the chest. After freezing the skin with ether-spray, I made an incision about  $3\frac{1}{2}$  inches long (it must be remembered that the patient was very fat), that carried me down to the intercostal muscles, through which I plunged a large-sized trocar; no pus followed. When withdrawing the stylet, I passed a probe through the canula and felt a thick carpeting of false membrane that the trocar had failed to penetrate. I then reintroduced the stylet and thrust the instrument deeper in, by a quick movement that served to drive it fairly into the collection of fluid. Pus now flowed freely, but the patient was seized with such a terrific fit of coughing that I withdrew the hard canula, and passed a large-sized soft rubber catheter in its place. Through this the pleural cavity was washed out with a weak solution of carbolic acid, and the catheter was retained in situ for forty-eight hours. The immediate result of the operation was to give almost entire relief from the cough. The pulse, temperature and respiration came down at once, and the patient was in a comfortable condition. The amount of pus secreted grew rapidly less, and on the fifth day after operation I found the house physician vainly trying to introduce the catheter in order to wash out the pleural cavity. On placing my ear to the chest the reason was apparent; the lung had expanded, and I heard a vesicular murmur clear to the base of the chest. The pleural surfaces, being thickly coated with tenacious and sticky exudation, were just in condition to fuse together and thus gum the expanded lung to its now normal position. I suppose that by this process the pleural cavity was nearly or quite obliterated. At any rate, no more pus was discharged, and at the end of two weeks the external incision had healed, and the patient was well. I think it is not claiming too much to say that she was cured by the operation. It is evident that at the beginning of her disease an error in diagnosis was made, and that an early thoracentesis might have saved her from pneumothorax and subsequent empyema. I believe the course of her disease to have been, first, a pleuritis with effusion that increased until, by pressure on the pulmonary pleura, some spot became necrosed and gave way, thus allowing air from the lung to find its way into the sero-fibrinous effusion, which then quickly degenerated into pus. It is probable also that the perforation in the pleura was over the lower part of the lung, and that as the pus was drawn off, it uncovered the aperture and allowed air from the lung to suddenly rush into the pleural cavity with the roaring noise already referred to. The pneumothorax was cured by the fibrinous exudation plastering up the rent in the pleura.

During the past year I have met with another instructive case of empyema, in a child seven years old, where, a few days after an aspiration of nine ounces of

pus, a communication was formed between the pleural cavity and a bronchial tube, through which the empyema emptied itself. I had already notified the parents that another aspiration would be necessary, and that eventually a permanent opening in the chest-wall might be required. At this time the child had long been very ill with pain and hectic, accompanied with a most harassing cough, without expectoration. Suddenly, pus was expectorated in large quantities—two teacupfuls during a night; the cough, pain, and fever abated, and at the end of a week were entirely gone; the lung re-expanded, and the patient had cured herself. There was no evidence of pneumothorax. Indeed, it by no means follows that it is even most likely that the emptying of an empyema in this way will be accompanied with entrance of air into the pleural cavity. The pus oozes through the rent in the pulmonary pleura and finds its way through the pulmonary tissue, keeping its passage-ways to the bronchial tubes closed against the entrance of air by a series of little traps, kept constantly filled by the thick and on-moving pus.

The following history is one of empyema treated by aspiration and then by free incision, with subsequent washing out of the pleural cavity:

John H. D., aged 23, was admitted to hospital, April 8, 1876, under the care of Dr. Leaming. He stated that he had been very ill for about two months. Upon examination Dr. Leaming found a large effusion in the left pleural cavity, and aspirated on the following day, removing 72 oz. of laudable pus. The patient was much relieved by the operation, but the pus re-accumulated, and when I took the service, May 1st, three weeks after the aspiration, the side was again filled with pus, and it was thought best to make a permanent opening into the pleural cavity. An incision was accordingly made on a line with the angle of the scapula, and between the eighth and ninth ribs. No trocar was used, but the scalpel was carried directly through the intercostal space, making an opening about two inches in length. The pus spurted out and continued flowing until 100 oz. were evacuated. A piece of rubber tubing was then passed into the pleural cavity and secured in position by passing a thread through it, and then securing the thread to the skin by adhesive strips, and over this a large wad of oakum was placed to catch the discharges. The cavity was injected daily with a weak carbolized solution. Day by day the discharge of pus grew less, until it amounted to only one or two ounces in twenty-four hours. Still, however, for weeks the lung refused to expand, but remained bound by adhesions to the upper vertebral region, until it seemed as if it were imprisoned for life, when one day air was heard entering a few of the air-cells, enough to furnish a doubtful vesicular murmur; this increased until there was no longer any doubt, and at the end of another month expansion was almost entirely accomplished. The side, which had begun to fall in, filled out again, and the man considered himself well.

In both the cases treated by incision as above narrated, alarming symptoms occurred several days after operation, and when everything seemed to be going on well. In the case of the woman, the pulse suddenly ran up to 160, with other accompanying symptoms of collapse. In the man the condition was not so startling. In both, however, a more thorough washing out of the pleural cavity gave prompt relief, and rendered it probable that the injection had failed to reach some pockets in the false membranes that held offensive pus, which was poisoning the general system. Pus lying in the warm cavity of the pleura



and exposed to the air may rapidly decompose and thus become a source of irritation and septic influence. Hence, at the earliest indication that this change has taken place, it is essential that the pleural cavity be disinfected and washed out. This is easily done by turning the patient on the side, so that the incision is uppermost, and then allowing a stream of weak disinfecting fluid, at the temperature of the body, to slowly flow into the cavity. If the pus remains sweet in the early stages of treatment, I see no advantage in the use of injections; and it is reported that sudden death has followed their employment, though these instances must be rare. Later on, they may be made to afford a needed astringent or stimulant to the secreting surfaces.

In the operation by puncture, Dr. Bowditch advises that we "operate in the back, between the eighth and ninth, or ninth and tenth ribs, below the scapula, on a line with its lower angle. I auscultate the healthy side, and always tap at least two inches above the lowest point at which the murmur can be heard. Generally, I think between the eighth and ninth ribs is the best spot."

With this precaution the liver and diaphragm are not likely to be wounded. The trocar should be pushed in by a quick movement, and far enough to pass it through any false membrane that may happen to be deposited over the site selected for operation. The chest-walls are thinnest at the angle of the ribs, and here also the intercostal spaces are widest. Sometimes this latter consideration is of importance. In two cases where I have tapped, it was very difficult to insinuate the trocar between the ribs, which were drawn close together—in one case, I suppose by a contraction of the intercostal muscles, and in the other from a shrinking of the chest-wall. In the latter case I used the finest needle belonging to the aspirator, and entered it between the ribs with difficulty. This patient, a very nervous child, was under the influence of ether. As a rule, I should be opposed to the use of an anesthetic. For mere puncture—in an adult—it is entirely unnecessary, for the pain is almost nothing; and in the operation by incision, local anesthesia can be used. The administration of ether involves more or less struggling on the part of the patient, and it also hinders due aëration of the blood; and blood charged with carbonic acid is liable to coagulate and cause a thrombosis. Add to this danger of heart-clot, the already existing disturbed circulation through the heart and large vessels connected with it, and we have abundant reason to dread the effect of an anesthetic. The inhalation of ether must also cause a degree of congestion in the sound lung, and thus favor a state of œdema, which is a grave complication.

It still seems to be an open question whether the admission of pure air into the pleural cavity causes purulent inflammation. Air charged with infective germs certainly produces this result, as is seen in the case of a pneumothorax resulting from a necrosed spot in the visceral pleura, and where decomposed tissue-elements become an abundant source of infection; but a small quantity of air admitted during operation is not likely to have any ill effect, as has been proved in repeated instances where this accident has occurred. At the same time, common prudence would dictate that every precaution should be taken against the admission of air that, for aught we know, may carry with it infecting germs, and thus change a simple exudation into pus. For the operation by puncture, the best apparatus that I have seen is Bowditch's trocar with Davidson's syringe attached. The

trocar is so small that it is readily pushed through the intercostal space, and yet its calibre is large enough to allow even thick fluids to readily flow through, while the syringe affords all the suction power that is needed or safe. As compared with Dieulafoy's aspirator, its operation is somewhat slow; but this is rather an advantage than otherwise, for it gives the displaced organs a little needed time in which to accommodate themselves to removal of the fluid that sustains them in their abnormal position. A sudden taking away of this support and removal of accumulated pressure upon the large blood-vessels involves danger of syncope.

As the fluid is withdrawn the lung descends and may come to press directly upon the end of the instrument. The visceral pleura rises and falls with the lung in respiration, and in this way is rubbed against the end of the canula. In such a case I conceive that harm may be done if the suction is so strong as to draw a portion of the pleura into the canula, which will then act like a mechanical leech, and so bruise tissues already lowered in vitality. If, instead of the smooth canula, the sharp lance-pointed needle of the aspirator has been employed, it is difficult to see how injury can be avoided. The cutting point of the needle is so sharp that slight pressure will cause it to penetrate not only the serous membrane, but also the lung itself, and as this viscus rises and falls upon the needle, its delicate tissues must sustain damage. In the case of the child already narrated, and where the ribs were so close together that I was obliged to use the small needle, and where a few days after aspiration pus was discharged through a perforation in the lung, I strongly suspect that this result was brought about by using the needle instead of the trocar.

The amount of fluid to be withdrawn must be regulated by each case for itself. Except in one instance, I took all I could get; in that case, after removing about 20 oz., the patient felt great oppression and constriction of the chest, and I desisted, thinking that perhaps a too rapid expansion of the lung might injure its delicate texture. Coincident with the introduction of the trocar, violent coughing usually takes place, that is variously accounted for. It is not unlikely that the wound of the costal pleura occasions it, and that the pulmonary pleura is also irritated by being stretched over the re-expanding lung. If the effusion is recent, the lung re-expands at once upon withdrawing the fluid that compressed it. If, however, time has been given for the formation of tough and strong false membrane, it may be tied up so that it cannot get free for a long time, or, as sometimes happens, not at all. In such a case the vacuum left below will be removed by the shrinking of the chest-wall upon that side, which will enclose a useless lung; and it is not necessary to speak of the constant peril in which a person lives who is deprived of half his breathing power. Here is a cogent reason for the early removal of a sero-fibrinous exudation. While it is entirely true that in the great majority of such cases nature brings about a cure, it is equally true that in many cases she does not; but leaves the lung permanently disabled; and in a crippled state, its circulation impeded, and more or less denied its natural stimulant of atmospheric air; the lung is in a most favorable condition to take on disease and run into a fatal phthisis.

It therefore becomes a serious question in any case, when the ordinary internal remedies have failed to bring about absorption, whether operative interference for the removal of the fluid is not called for. The time for interference must differ with differing cases.



A latent pleuritic effusion the result of a low grade of inflammatory action, and containing very little fibrine, while all the more likely to degenerate into pus, will not make many or strong adhesions, and in this respect may be safely left for many weeks; but an acute pleurisy is a different thing, and I think that three weeks is the outside limit of safety against the formation of permanent and disastrous adhesions. In such a case, by drawing off even a part of the fluid, we diminish pressure upon the absorbents, and allow the lung to expand and to break the still tender bands of exudation that are threatening to permanently disable it.

Allow such a case to go a few weeks longer, and what were once tender, though perhaps thick exudations, have become as tough as wet chamois skin, and not very unlike in appearance. This too is becoming, or has become organized, and is an adventitious tissue, supplied with blood-vessels of its own, and past any hope of absorption. Interlacing bands run between the costal and pulmonary pleura, and if, by good fortune, a partial re-expansion is finally accomplished, it is after months or years of time, and at an expense of suffering and weakness of body that it is our duty to prevent.

In the case of an *empyema*, the demand for an operation is imperative, although even here it must be admitted that in certain rare instances nature is reported to have been able to dispose of the purulent fluid by absorption, and unassisted.

It is almost certain, however, that such a case, if left alone, will go on to a fatal issue, worn out by pain, and slowly consumed by hectic; or, unhappily, the patient may live long enough to become the subject of a thoracentesis by slow natural processes, by which the pus finds its way through the chest-wall, and imperfectly discharges itself through a fistulous opening. By the time this has been accomplished, the condition of the interior of the chest has become such that little can be hoped from this or any effort to completely relieve the cavity of its contained pus. If an attempt is made to enlarge the fistulous opening, it will be found that the pleural cavity is not only lined with false membrane, but that it appears to be almost filled with it. The membranous and organized bands or partitions, like guy-ropes running across from chest-wall to lung, and from lung to diaphragm, while hindering the expansion of the chest, also hinder the free discharge of the pus pocketed between them; so that a free opening at the most favorable site may fail to do more than empty that one of the loculi that it has directly encroached upon. So that, in fact, we have to deal not only with the external and accessible fistulous canal, but with many others opening into it that are internal and beyond the reach of operation. An attempt should be made to forestall this condition by an early tapping. By removing the fluid, we give the lung room to expand and thus break away from the plastic adhesions that are not yet strong enough to hold it, and it is among the possibilities that no re-accumulation of pus may take place. In such exceptionally favored cases it is supposed that the residual pus undergoes a fatty change, and is then reabsorbed. If repeated operations are necessary, it becomes a question whether aspiration should not give place to the operation by incision.

If the secretion of pus is steadily decreasing, and the constitutional disturbance is moderate, and especially in a young subject, we have reason to hope for an ultimate cure by aspiration. If, on the other hand, the pain and constitutional irritation continue severe, and the pus rapidly reaccumulates, I think there is no

question that the pleural cavity should be opened by an incision large enough to admit of a ready evacuation of its contents, and of the manipulations necessary in washing it out, if the pus should prove to be of an irritating quality. This, of course, permits the free access of air to the thickened and inflamed serous membrane, but no harm results. May it not be that, so far as the contact with air produces any effect, it is beneficial by acting as a stimulant to the pyogenic surfaces. However this may be, the effect of the operation, so far as I have had opportunity to observe it, has been to diminish the amount of pus secreted, thus at once lessening the drain upon the system. The pain in the chest, which is often severe, is mitigated or entirely relieved, the cough abates, and under these improved conditions the patient is enabled to obtain natural sleep and to take food with increased appetite. Meanwhile, the lung is afforded room to expand, until, by its increasing bulk, it fills the cavity. It is obvious that the rate of this expansion will mainly depend upon the greater or less resistance offered by the adhesions, and to some degree also upon the inspiratory vigor of the patient.

135 EAST 56TH ST.

## LARGE MYXOMATOUS TUMOR OF BUTTOCKS—REMOVAL AND RECOVERY.

By L. L. COMSTOCK, M.D.,

CHARLESTON, WEST VIRGINIA.

THE following case is presented on account of the great size of the tumor, its general character, its peculiar situation, and the rather remarkable absence of hemorrhage during the operation:

Mrs. Y. Age 38. Married. Four children, youngest 4, oldest, 11. Was married twelve years ago.

About fourteen years since was thrown from her horse, striking violently on her buttocks, leaving the right side somewhat painful and tender on pressure. About a year after this fall she discovered a small tumor issuing from between or through glutei muscles. This she could push back so that it would entirely disappear, but would speedily return on removal of pressure. Because of this one of her many doctors treated it for hernia. The tumor at this time, she said, was "right where I sit." At the time of her marriage it was about as large as a duck's egg, and had ceased to be either painful or tender on pressure. Very soon after marriage her husband discovered that something was wrong, and thinking himself imposed upon, returned her to the parental roof, but upon being convinced that it was the natural result of matrimony, or some other equally innocent cause, took her back to his own home a happier, if not a wiser man.

She soon became pregnant, and during this first pregnancy she thought the tumor grew more rapidly than ever before or since. From this time up to the time of removal, she thinks the growth of the tumor has been pretty uniform, though I am told it was nearly as large when her last child was born as now. This child was delivered with some difficulty, but was born alive. About this time a physician, being curious to know what the tumor contained, thrust a knife into it about eight inches; there was but small discharge—blood and bloody water—producing no pain whatever.

On July 1st, was called, in company with Dr. Parks, of Kanawha Salines, and Drs. Ewing and Carr, of Charleston, to see and remove the tumor—of which I had heard much, but had never seen—the patient declaring she would rather die than carry it any longer.

I found her sitting on a small bed, appearing somewhat careworn, and thin in flesh, but otherwise in perfect health; was of healthy parentage, and we had no reason to think that she had had syphilis. Had been regular in her menses until within the past three months; and she thought she was pregnant. As she sat, the tumor projected on both sides of right leg, extending nearly down to her feet. It was purplish in color. Skin generally smooth. The hair follicles, by constant tensions of the skin, were one and a fourth inch apart. In some places there were sharp depressions in the skin. As the tumor lay, a jar of the bed set it all in a quiver, like thin jelly. In some of the softer parts, or where the skin was the thinnest or softest, it felt as if filled with water.

Where it came against her legs most, and on under side, the skin seemed very thick—was almost perfectly devoid of sensation. She would slap it with her hand and pinch it without pain. In walking she reached down and grasped it as the fashionable lady does her train, and in this way she walked about considerably. She sat down upon it as if a cushion, throwing out her legs horizontally before her. She handled and pushed it about as if a perfectly foreign body, its size and weight being apparently the only inconvenience it gave her. About five years ago it ulcerated on its inferior and anterior surface, and has



discharged more or less ever since. Sometimes the discharge was pus from the ulcer, and at times a watery fluid. When the discharge was free it seemed to diminish in size. The ulcer was circular in form and about five inches in diameter. The tumor became pendulous soon after it emerged from muscles.

I took the following measurements as she sat: Circumference, three feet eleven inches. The upper portion extended above the general outline, and around it in this diagonal direction it was four feet three inches. The neck, not close to body, was one foot ten inches. Standing on her feet, the tumor hanging quite or nearly its whole weight—she could stand but a short

time without support—it measured as follows: From point of origin to pubic bone, five feet; circumference, largest portion, four feet two inches, the neck being extended by weight of tumor; line drawn tightly, was one foot five inches.

While standing, the arms were drawn down on side of tumor four inches from her body. The right labia was also drawn down for some inches, forming a connection with the skin, a portion of the covering of the tumor being perceptible only from its color and smoother surface.

Ethereizing our patient, we placed her on right side, flexing leg on thigh and thigh on abdomen. Made incision about four inches below anus—which brought a free flow of venous blood, more than in the whole operation besides, as only once or twice was there a spurt of arterial blood, which was stopped without ligature or even torsion. Beneath the skin in this place I found a thick, tough fascia. I made an incision in this, then pushed through it a tough, grayish or bluish-white substance, very soft, but firm, and not easily broken down.

After making opening in the skin and fascia large enough to introduce my hand, I could with but little trouble separate the contents of tumor from skin, which I did for six or eight inches. Withdrawing my hand, the skin was carefully divided, and in this way I worked my way around to the point of beginning. Then with my hand and the handle of my scalpel I dissected the jelly-like mass from the body, dividing only some muscular bands thrown down, or loops of muscle brought down, for the support of tumor, but the skin seemed to be the principal support, portions of which was over an inch thick, and quite firm.

Expecting retraction of the skin, I left a stump, and after removal of tumor it was a hollow one, about four inches long. We sponged it out with carbolic acid, and closed it up with sutures. It healed generally by first intention, and without an untoward symptom.

We divided the tumor, and found it to be uniform in composition, as above described. On division there oozed from the cut surface a clear fluid, but slightly colored with blood, and not, or but slightly, viscid. The question arises, from whence did it receive its nutrition? Probably through a multitude of small vessels situated in the skin, which retracted immediately on division. The vitality was low, as may be seen from the lack of any effort of the ulcer on its surface to heal. From its almost entire freedom from sensation, we infer that its supply of nerves was very small indeed. Its weight was forty-seven and one-half ( $47\frac{1}{2}$ ) pounds. No microscopical examination of the tumor was made.

Oct. 25th.—I visited Mrs. Y. She had just returned from a visit to her father, about seven miles distant. The first three she had ridden on horseback, last four walked, showing but little fatigue. She was much improved in her general appearance and flesh, and had entirely lost her careworn look. Complained only of pain and weakness in back and hips. The wound, save a very small portion over gluteus, was smoothly healed up. The skin over this portion had, as we expected, retracted to about the general surface; but not so in front, leaving at this point quite a tumor, but which we hope will diminish somewhat. It now extends to about seven inches below pubic bone, having the same appearance as before removal, only not so large. The labia are still to be seen, much as before removal of tumor. Over the hips and back the skin has the appearance of that on the belly of a multiparous woman.



## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

##### COMPOUND COMMUNUTED FRACTURE OF THE FEMUR IN ITS UPPER PORTION—NON-UNION—PLASTER-OF-PARIS DRESSING—TREATMENT BY BUCK'S EXTENSION.

At the time this man was admitted to the hospital he was suffering severely from shock. The appearance of the limb suggested amputation. The wound was dressed according to Lister's method, Buck's extension apparatus applied (adhesive plaster, weight, and pulley), and on the following morning the condition of the patient was so good that it was determined to make an effort to save the limb. From the 15th of September until the 30th of November, the extension apparatus was worn, the wound was kept clean and dressed with carbolized dressings, and the general condition of the patient continued very favorable. At the end of that time the dressing for the fracture was removed, when it was found that union of the bone was not firm. A plaster-of-Paris splint was then applied, embracing the foot, leg, and the thigh to the perineum. It was applied for the purpose of securing a firm union of the bone. It was said that, if the patient could get up and move about, a condition of affairs would be established which favored perfect union. The patient could roll about in his bed, and expressed himself as feeling much more comfortable than when wearing the extension apparatus. A fenestrum was cut in the splint, so that the wound could be easily exposed to view.

The plaster-of-Paris dressing for fracture of the thigh was not recommended by the visiting surgeon, however, unless experience had been had in its application, and the patient was where he could be closely watched.

##### A CASE OF DOUBLE PLEURISY—SUCCESSFUL AND UNSUCCESSFUL ASPIRATION.

Double pleurisy is a rare disease. The history of the case was clear, and so well borne out by physical examination of the chest, that it is believed to be worthy of mention. Four months ago a negress, æt. 32, who was in her usual health, was taken with a chill, which was followed by severe "stitching" pain in the left side. The severe pain continued three or four hours, then gradually subsided; but more or less pain was present during the succeeding week. At the end of that time she was seized with pain in the right side, which was of a less severe character than that in the left side. During the week between the development of the pain in the left and in the right sides, the patient suffered very much from irregular chills. The pain in the sides was followed by a cough; she had vomited or spit up blood at irregular intervals, sometimes as large a quantity as a teacupful, and had lost some flesh.

She was worse about two months ago than at the present examination, and now felt worse than she did in the early part of her sickness.

On physical examination, there were found flatness upon percussion, and absence of all respiratory and voice sounds over the lower portion of the chest, exaggerated respiration over the upper portion, and the line of percussion dulness was distinctly changed by

changing the position of the patient. The voice was too feeble to render vocal fremitus of very much importance as a physical sign. The apex-beat was in its normal position. There was no general anasarca or other symptoms which would lead one to suspect that she had kidney or cardiac disease, and the conclusion was reached that the patient had fluid in both pleural cavities, and that it was inflammatory and not dropsical. The patient had little or no present evidence of febrile movement.

Since admission to the hospital, both sides of the chest had been aspirated. From the right side three ounces of clear blood were obtained, and from the left nothing. The patient had been aspirated, however, five times before admission, and twice both blood and serum were drawn off. The fact that she had had irregular chills, sometimes followed by fever, was thought to lead to the suspicion that there was something besides malaria giving rise to them, and the question arose whether she did not have acute empyema at the beginning, and also whether there was not pyæmia behind that. To answer the question required a careful study of the history of the case and its subsequent progress.

#### TREATMENT OF EPIDIDYMITIS.

A case was seen; it was caused by gonorrhœa, and the following suggestions with reference to treatment were noted:

When a case of gonorrhœa presents itself, make the patient wear a suspensory bandage. It might prevent the occurrence of swelled testicle.

If the epididymitis is seen early, and the pain is severe, make needle punctures in the tunica vaginalis and relieve the hydrocele which causes the pain.

As a rule, it was not advisable to use urethral injections during the acute stage of epididymitis.

When the testicle begins to swell, the urethral discharge commonly ceases, and returns when the swelling subsides. Sedative lotions, fomentations, leeches, and cold may be employed during the acute stage. Rest in bed is important, and usually it is sought by the patient. Leeches, if used, should be applied along the course of the spermatic cord. If applied to the scrotum, they may give rise to troublesome extravasations of blood. A ready method of supporting the testicles, and giving them rest and freedom from pain, is by ordering the patient in bed, and by passing a broad strip of adhesive plaster under the scrotum, and from one thigh to the other.

KARL FREDERICH HEINRICH MARX, the senior of the Medical Faculty of Göttingen, is dead. He was, after the celebrated Weber, the oldest member of the Royal Scientific Society, and was a Knight of the Order of Guelph. The deceased was born at Carlsruhe in 1796, and studied at Heidelberg. He became a professor in Göttingen before he was thirty years old, and celebrated several years ago his fifty-year jubilee.

LECTURES ON HYGIENE IN HOLLAND.—Regular professorships of hygiene will shortly be established in the universities of Holland. Dr. Ludwig Hirt, of Breslau, has been unanimously chosen by the Faculty of the University of Utrecht to fill the new chair in that university. It is not yet known whether this choice will be confirmed by the Dutch Government. There is some reason to think that the government would have been better pleased if the choice of the Faculty had fallen on a native Hollander.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## HOW TO MAKE CONTRIBUTIONS TO MEDICAL JOURNALS MOST AVAILABLE.

For many months past we have been struck with the great quantity of really valuable material which has been published in the different medical journals of the country. There is no doubting the fact that the number of medical writers is markedly increasing, and that, as a whole, their communications are more voluminous and frequent than they have ever been before. Gratifying as this may be as an indication of progress and as a promise for the future, we are convinced that much that is of great practical value to the profession at large is buried either in journals which are inaccessible to the mass of medical readers, or in those volumes of Transactions of State Societies whose circulation is limited to the members of those organizations.

The question which concerns the authors of valuable papers, and the profession at large who wish to benefit by such publications, has reference to the best means which can be adopted to insure the greatest good to all. The latter is obviously accomplished by the widest possible circulation which can be given to the author's views. One of the principal obstacles to this is the obligation which is imposed upon practitioners, all over the country, of supporting their local journals. There would certainly be no objection to the encouragement which such periodicals receive if we were always certain that the end justified the means. Too frequently, however, the journals are mere college organs, and outside the circle of school and strictly local interests their very existence is scarcely known. In some localities so much partisanship is displayed by the supporters of rival sheets that it becomes almost a matter of honor to contribute to their columns all the available material which can be gathered in the neighborhood.

It is not our purpose at present to discuss the benefits which the profession, as a whole, derives from these publications, inasmuch as we might lay ourselves open to the charge of hindering what interested parties might call legitimate enterprise. The main difficulties in the way of real usefulness of these organs is their necessarily limited circulation, and it is with this objection that we have to deal in considering the best interests of many talented medical writers. Of course it would be unwise, impolitic, and, under the circumstances, almost unfair to discourage any effort which is made in the direction of conscientious duty. In the face of such convictions on the part of a large majority of these contributors, any advice to pursue a contrary course would be useless. We have therefore to accept the situation and make the most of it.

The only thing which can be done, under the circumstances, is the publication of abstracts of these papers in the leading journals over the country. The larger the circulation of such a journal, the greater the obligation to publish such abstracts. But the difficulties in the way of doing even this are often insurmountable, and render almost nugatory the best directed efforts. The difficulties of obtaining original articles for the smaller local journals are obviously great, and explain the extreme and unnecessary length of the majority of them. A certain number of pages must be filled, and no other choice is left. As a consequence, the conscientious editor of a journal who desires to obtain everything of possible value from his exchanges, is compelled to wade through an incredible amount of reading before he can accomplish his purpose. Oftentimes this labor is so entirely unproductive that he finds it easy to quiet his conscience by preferring the shorter articles. Although the latter are always more extensively read, it by no means proves that longer articles are not of real value, and should not have equal attention. For the purposes of quotation, however, it is found practically that such attention is so much oftener the exception than the rule, that in the interests of all we are tempted to make a suggestion to the effect that the author of every elaborate article, either in a journal or in the Transactions of his society, should succinctly state at the end of such article the conclusions at which he has arrived. If these are carefully made, the benefits of his observations can be given to the readers of other journals at once, leaving all who may be specially interested to study the line of argument in detail from the original sources. It is impossible to estimate how much good the general adoption of such a plan would accomplish. We speak from a long experience in medical journalism when we say that the secret of prompt and wide-spread quotation rests more upon the terseness of conclusions than the skillful elaboration of the arguments upon which they may be founded.

For purposes of general reading, also, these lengthy journal articles could by such means be more exten-



sively useful. The circumstances which surround every practitioner compel him to economize his time as much as possible. In most instances, if he must read a long article from beginning to end to obtain what may be useful to him, he defers it to the more convenient season, which never comes; whereas if he can get the conclusions at once he is satisfied, and is ready to apply them to the treatment of cases he may have on hand.

In this connection we take the opportunity of saying, *en passant*, that the most taking and widely-quoted articles are those which bear upon points of the treatment of disease. The reasons for this are quite obvious, when we consider that the mass of the readers of medical journals are practitioners who are anxious to learn of every new method, and apply it with the least possible delay. How to cure disease is with them the vital question, and the more effectually medical writers strive to answer it, the better will their labors in the cause of scientific progress be appreciated.

Following out the principle embodied in this article, we would simply state that, in view of the great amount of valuable material scattered throughout the medical journals and the Transactions of medical societies, which may otherwise run to waste, the best means of benefiting authors and readers by a wider dissemination of views in the shape of abstracts in other journals, is the publication of the conclusion at the end of said articles. As this advice applies with equal force to our own contributors, we have had a double purpose in offering it.

#### MEDICAL AND SURGICAL HISTORY OF THE WAR.

THE annual report of the Surgeon-General of the United States Army, although but a brief pamphlet of eighteen pages, is too decidedly suggestive to be passed with a mere memorandum of contents, particularly as the histories of surgical cases rendered accessible to the general practitioner by the publications of the department form a valuable adjunct to surgical education in this country. A pertinent illustration of this point is furnished by the statement on page 13, that at the end of the fiscal year June 30, 1876, histories of 227,098 surgical cases, and of 40,502 operations had been tabulated. At the same date 4,093 cases had been collected for a report of the surgical cases treated in the army since the publication of circular No. 3, August 17, 1871. To these data the past year has added record of 1,559 cases, making a grand total of 5,652. Of these, injuries to the head and neck include 2,062; injuries to the trunk, 455, and injuries to the extremities, 1,554—the whole involving 311 amputations and 24 excisions. The remaining 1,581 are classified as miscellaneous.

What mainly interests the profession, in view of this rapid accumulation of the classified facts of surgical experience, is the arrangements for continuing

the publication of the Medical and Surgical History of the War, of which copies have already become somewhat rare and difficult to obtain. The work of stereotyping the medical volume of Part II. of the Medical History of the War was commenced in January last, under the able supervision of Dr. J. J. Woodward; and up to July 30 about 350 pages had been stereotyped. The volume will be ready for issue probably before the expiration of the present fiscal year—that is, previous to June 30, 1878. The projected second edition of 5,000 copies of the second volume of Part II. of the Medical and Surgical History of the War has been completed under the supervision of Assistant-Surgeon G. A. Otis, and the third volume is now in progress, so that the profession in this country may presently anticipate a fuller supply of those invaluable contributions to the literature of surgery.

As the contributions to medical, surgical, and sanitary science developed by the experience of the war belong to the whole country, and form an essential part of our medical and surgical history, it is perhaps to be regretted that larger editions were not printed in the first instance; for although a fresh demand for stereotyped work can be supplied at any time, delays will necessarily occur in matters depending upon appropriations, and intervals of scarcity can only be provided against by very liberal editions. The current work of the department is valuable, of course, but it cannot enter into competition for value with the vaster experience accumulated by one of the most gigantic wars that the nineteenth century has recorded, the data of which have long since been carefully classified, and should have been made accessible to the general practitioner. Condensations and hand-books have their function for easy and convenient reference, but it is to the official publication that the profession must turn for complete and unedited information; and the Surgeon-General and his coadjutors cannot be too highly complimented for the efficiency with which they are pushing their part of the work.

#### ALBANY ETHICS, AND HOW TO SUPPRESS QUACKERY.

THE profession has always been interested in the suppression of quackery. It may be a matter of congratulation with some to learn that many of the most prominent medical gentlemen, here and elsewhere, are fighting the quacks with their own weapons and hoisting them with their own petards. The time appears to have arrived when it is necessary to inform the public that there is considerable learning and skill in the regular profession, but which, in consequence of a false and culpable modesty, has never before been brought to notice. Of course, it must be admitted that in allowing our personal horns to be blown, or, what is perhaps more to the purpose, blowing them ourselves, there is a slight risk of being classed with the very quacks which we wish to condemn; but any such action



as would be hazardous to lesser men, is, however, entirely safe, dignified, and justifiable with men of reputation. Under the circumstances, then, it is well that these matters are so entirely in the hands of our seniors, and that there are no chances of the public mistaking the sheep for the goats. There is always something touching and unselfish in the pains which are taken by medical men to set the people right on matters connected with the treatment of diseases. Heretofore, however, professional jealousy has more or less interfered with the development of a true Samaritan spirit, but all barriers are now being broken down for the good cause, and medical gentlemen of the first standing are willing to certify where the most skilled services can be secured.

To Albany has been reserved the proud distinction of taking the initiative in this matter, by establishing a principle that wherever true merit exists among their number, medical men gladly acknowledge it publicly and privately. There is, it is true, somewhat of a mutual admiration society about the affair, but in the present advanced state of public opinion regarding our relations to each other, and the necessity of avoiding professional quarrels, this is of secondary importance to the grand end in view. It would appear that there has been a crying necessity for a well-equipped eye infirmary in that enterprising medical centre, and as that idea evidently originated with a prominent oculist of that place, he very properly asks the indorsement of some of his medical friends. Although the gentlemen cheerfully certify to his skill, and are very willing to have "any use" made of their names, they evidently did not dream of such certificates being published. In fact, this was so contrary to all established usage, that it was beyond their contemplation. But the unexpectedly complimentary character of some of these letters compelled "the gentleman in question" to waive considerations of personal delicacy, sacrifice himself to the higher interests of the institution, and submit copies of these complimentary letters to the board of managers, who publish them in pamphlet form. It is of course unnecessary to say that these reports, calling for pecuniary subscriptions to the institutions, are intended only for medical men. As we are informed that the high opinions of the surgeon's skill, fitness for his position, etc., are from "prominent physicians," nothing more is needed to secure the success of the institution. As the best of reasons are given for "waiving all personal delicacy" on both sides, we have no doubt that all parties are pleased, and that each and every one will work harder than ever in behalf of suffering humanity. For further particulars apply to the office of the Surgeon-in-chief, which is also "the principal office of the body corporate and where all communications should be addressed." Let us in conclusion congratulate our Albany brethren that they can rise so far above ordinary prejudices and unite with such unanimity in dealing such a fatal

blow against quackery. One thing more remains to be done, and that is to advertise the infirmary by the year in the daily papers of that city, and with all the certificates attached.

#### HOSPITAL STEWARDS AND THEIR PAY.

A MOVEMENT understood to have the approval of the Surgeon-General, or at least not opposed by him, has been set on foot with a view to the reorganization of an important department of the medical service of the United States, and will be pressed earnestly upon the attention of Congress this winter. The petition, with a view to raise the standard, rank, and pay of the stewards in the medical department of the army, proposes a division into three classes, with the designation of Medical Stewards, members of the first class to have the rank of Regimental Sergeant-Major, but junior on all occasions of ceremony or command save within the department itself; the second, the rank of Sergeant of the Medical Department, and to be promoted to first class after service of two years; the third, designated as Probationary Stewards, to consist of men selected from the enlisted men of the army, or specially enlisted from civil life. The latter, after a probation of one year to discover their general or special aptitude and competence for the service, may be promoted to second class, but, preliminary to enlistment, must pass an examination in pharmacy, minor surgery, bandaging, dressing, etc., as well as in reading, writing, arithmetic, and general attainments. The stewards petition for a pay of \$50 per month, with an increase of \$5 per month for each five years of continuous service to stewards of the first class, and the same rations, fuel, quarters, and clothing allowance as are now rendered to hospital stewards. The pay of the second class is rated at \$30 per month, and that of the third at thirty cents a day, in addition to their regimental rank and allowances. It is proposed, furthermore, that any steward of the first class who shall have served faithfully for thirty years, shall be entitled to a pension equal to three-fourths of his pay, if incapacitated by wounds, injuries, or disease, provided such incapacity is not in consequence of immoral conduct. The remainder of the document specifies certain necessary but rather immaterial details as to uniform, modes of appointment, and the like, which are of no interest to the non-military reader.

It is stated by those cognizant of the facts that the medical officers of our army enjoy a rank, pay, and consideration superior to those attendant upon the medical service in the great armies of Europe—a position won after many battles and very considerable snubbing. Several attempts have been made correspondingly to improve the standing of hospital stewards, though hitherto without any substantial result. The present attempt embodies the sentiments of the most moderate and thoughtful of the stewards now in

the service, and is heartily indorsed by medical officers, post-surgeons, and directors of military departments, as essential to the efficiency of the service, and to secure really competent men for the positions to be filled? The petition is thus officially representative of the medical as well as of the pharmacal arm of the service, and hence in a form to receive such attention from Congress as no mere petition of stewards in their private capacity could properly command; and as the medical officers who have affixed their signatures are the most competent judges of the necessity for a reorganization, no special inquiry is necessary to intelligent action or earnest advocacy. It may be objected that while the army is on a peace footing, it is not just the time to set about reorganizing such a department, or to talk about increasing the pay of army officers and followers. The increase, however, is very trifling—only sufficient, indeed, to assure a reasonable competition, and hence to secure competent persons for such posts; and as the health and efficiency of the army depend very materially upon the capacity of the medical stewards, the proposal is one that should be acted upon at once, irrespective of the other considerations. Indeed, there is no time like an interval of peace for securing an efficient organization of details that would necessarily be overlooked in attending to major matters, were an untoward event to precipitate a conflict with Mexico—a contingency liable to occur at any moment. Besides, although the duties of a medical steward are arduous and responsible, the pay is ridiculously small, and should be increased as a matter of simple justice.

## Reviews and Notices of Books.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by DR. H. VON ZIEMSEN. Vol. XV. Diseases of the Kidney. By Prof. CARL BARTELS, of Kiel, and Prof. WILHELM EBSTEIN, of Goettingen. Translated by REGINALD SOUTHEY, M.D., Oxon., of London, and ROBERT BERTOLET, M.D., of Philadelphia. ALBERT H. BUCK, M.D., New York, Editor of American edition. William Wood & Co. 1877.

No organ of the body has received more careful attention from students of medicine than the kidney. Not satisfied with the immense advances that were made by Bright, observers the world over have continued carrying out the most minute and painstaking investigations, both as to the microscopic characters of the different forms of disease and their clinical history. It is fair to say that in the latter particular and in etiology progress has not been so decided as in the matter of pathological anatomy. Even now we find the most diverse ideas ruling as to the relations which the various stages of the so-called Bright's disease hold to one another, though the nature of the minute changes is pretty clear. Nor have we reached definite ideas as to what uræmia is, and the clinical importance of albuminuria and dropsy. Still we are making progress, even if it amounts to little more than showing the inadequacy of old theories. Bartels informs us

that from his personal investigations on the blood in marked instances of uræmia he has sometimes found the amount minimal, in one case but 0.01 per cent., so that an excess of urea in the blood could not in that case have been held to cause the symptoms, nor does he think that Frerichs's theory of ammonemia (the carbonate of ammonia in the blood) can explain all cases, for he has failed to find it present in undoubted uræmia. The third hypothesis of Traube, that two conditions are essential, viz., watery blood and increased blood-pressure, fails in cholera, when uræmic symptoms supervene. The real cause he does not venture to assert with any positiveness, simply regarding the symptoms as "caused by some disorder of the urinary secretion," due sometimes to a disproportion between the production and the elimination of urea. There is a manifest effort to clear up our knowledge of dropsy and albuminuria, which Bright thought were always due to pathological changes taking place in the kidney, and yet we know now, on the one hand, that advanced kidney disease may take place without either, and on the other, that both phenomena may be associated with a normal or but little damaged kidney. Albuminuria, indeed, owes its existence simply to increased blood-pressure, and dropsy to protracted diminution in the secretive pressure. Both conditions are most often met with in diseased kidneys, but they do not either necessarily depend upon a deterioration of the tissue of the organ.

Dropsy, indeed, may be one of the very first symptoms of a kidney affection. The classification which the author has adopted for what has been known as Bright's disease seems to be a move in the right direction, though one which is opposed to German ideas, while mere in accordance with results that have been reached in this country.

According to Bartels the common Bright's kidney does not run through three stages, one of hyperæmic swelling, a second of infiltration, and a third of contraction, but all of these conditions may be independent one of the other in their causation. All such affections, including the waxy kidney, he would group under the common name of diffuse diseases. His divisions would be: first, *active* hyperæmia, such as is produced by the application of cantharidal preparations; and *passive*, where there is an obstruction to the circulation, as plugging of the renal veins. Then we have ischaemia of the kidney (the choleraic affection); then acute parenchymatous nephritis, very commonly found in scarlatina, and having the title of acute diffuse nephritis, acute desquamative nephritis (Johnson), hemorrhagic nephritis (Traube), the catarrhal and croupous nephritis of the Germans, albuminous nephritis (Rayer). Next comes chronic parenchymatous nephritis; the second stage of Bright's, the non-desquamative nephritis of Johnson, and the *néphrite parenchymateuse profonde* of Lecorché, or the "large white kidney." This rarely follows the acute parenchymatous nephritis, and is not the precursor of the contracted kidney. Its origin is insidious. He knows of no case in which the nephritis of diphtheria became chronic, but he does know that it may happen in scarlet fever. The acute form developed by exposure and cold may become chronic, but he believes that long-continued exposure to cold and moisture may bring on the chronic affection without any previous acute attack. The acute parenchymatous nephritis of pregnancy is an affection that may, according to statistics, occur in one out of 136 cases; the chronic affection is more apt to follow than in the other forms of acute nephritis.

Renal cirrhosis, a synonym for renal sclerosis, granu-



lar atrophy of the kidney, contracted kidney, interstitial induration or inflammation, the third stage of Bright's disease, is believed to be due to a pathological process of its own, independent of the diffuse inflammations already described. But this condition is not one of old age, as held by Gull and Sutton, but rather, according to his statistics of thirty-three cases, one that occurs between the ages of thirty and forty. It is four times as frequent in men as in women, and belongs to every class of society.

The process, according to Gull and Sutton, commences about the small vessels, and is described as arterio-capillary fibrosis, and is thought to be merely a symptom of wide-spread disease of the entire arterial system. The exact nature of the renal change is regarded as uncertain.

Waxy degeneration is not an affection of the vessels in the kidney merely, but of the entire system. It is in some way connected with suppurative processes, but almost wholly when the pus becomes exposed to the air; for large purulent collections may be confined and never give rise to the change. This degeneration, strange as it may seem, occurs only in the arteries of the digestive tract, the spleen, the liver, the kidneys, the supra-renal capsules, the lymphatic glands, and the thyroid body. We observe that he says nothing about parenchymatous degeneration of the kidney, a condition which not long ago was thought to describe the kidney in phthisis, phosphorus poisoning, and typhus, but prefers rather to use the word inflammation. It will probably be some time before we shall have these matters cleared up, though we are sorry to lose sight so thoroughly of the word diffuse in the classification given us.

Those who have done much recent work in the histology of the kidney will appreciate the fact that the great majority of kidney troubles are of a strictly diffuse character—that is, it is not merely the epithelial elements that are involved, but the framework of the organ.

Elbstein closes with affections of the pelvis and ureters, perinephritic tissues, renal tumors, parasites, and anomalies, with diseases of renal vessels. Taken as a whole, the book is a most extended treatise on the recent literature of the subject, and gives the present attitude of the questions on renal matters now before us. New material in the way of illustrative cases has been added in abundance.

**THE QUESTION OF REST FOR WOMEN DURING MENSTRUATION.** The Boylston Prize Essay of Harvard University for 1876. By MARY PUTNAM JACOBI, M. D., Prof. of Mat. Med. in the Woman's Medical College, New York. New York: G. P. Putnam's Sons. 1877.

THE question which Dr. Putnam-Jacobi has set herself to study in this essay is one which has of late years attracted much attention, both on the part of the medical profession and the general public; and to the former especially, the views of one who, besides her special qualifications for studying this subject, has already won for herself in other fields the name of a ripe student and a conscientious observer, will prove exceedingly interesting. The essay is divided into six sections. In the first the author makes a good point of the fact that the women of the lower classes have in no age or country been absorbed in domestic occupations and the education of children. The trades corporations of the middle ages, in some places at least, included women. In the United States the census of 1870 showed that one-sixth of the entire female population was taking part in the paid industry of the country. Section two is devoted to statis-

tics derived from 268 answers received to a series of questions that were sent to about a thousand women. The tables compiled from these answers are so numerous and complicated that we are afraid the average man will be tempted to skip them bodily. Unfortunately, despite the care and study expended on them, the statistics are of but little value; they are too few in number, and moreover nothing is said about the class or classes of women to whom the circulars were sent.

The third section, which deals with the theory of menstruation, is to our mind the best in the book. The views of all the prominent writers on the subject are alluded to, or described at length, and the arguments in favor of the two theories most generally accepted at the present day are compared and analyzed with consummate skill. The author herself accepts the theory that ovulation and menstruation are distinct and not necessarily coincident processes. She holds that the menstrual flux is the result of degenerative changes in the uterine mucous membrane which has become hypertrophied as a preparation for pregnancy, combined with a plethoric condition of the general system, which was also a preparation for pregnancy. It is the simple climax of a series of consecutive processes perfectly continuous with one another, which began at the termination of the preceding menstruation.

In the next section the author gives the result of a series of investigations of the excretion of urea, the temperature and the pulse, in a small number of women during, before, and after menstruation. These investigations proved that the arterial tension begins to rise after menstruation, and reaches its acme at the next premenstrual period, to fall again during the flow. In all the details evidences were found of a gradual and steady preparation for the menstrual hemorrhage; hence, the idea that normal menstruation can have any tendency to deplete the nutrition or lower the strength, must be discarded. An exhaustive argument is made to prove that the premenstrual plethora is provided for by diversion from the voluntary muscular system, which accounts for the weakness of the muscular system of woman as compared with that of man.

The whole aim of the author is to prove that in normal cases menstruation is a perfectly painless process, and that the loss of blood is provided for beforehand in such a way that it can exert no evil influence on the nutrition of the body. Hence, it follows that neither mental nor bodily rest is necessary during the flux. In cases of painful menstruation, it is true, rest is absolutely necessary; but then there is question of a diseased, and no longer of a perfectly normal process. While, however, denying that woman demands rest during menstruation, the author admits that the female sex is lacking in muscular strength and power of fixed attention, the natural consequence of which is an inability to work as long or as intensely as the male sex. This inherent weakness renders rest necessary for women, but to be effectual the rest must be "at short intervals and lasting for a short time, and not at long intervals and lasting longer."

In conclusion, we will only add that the manner in which the entire subject is treated is most masterly, and that every page in the book gives evidence of great erudition. The greatest fault that we have to find with the essay is that the style in which it is written is too abstruse. It is often difficult to follow the argument, which makes reading it a task, whereas it should be only a pleasure. We welcome it, however, as a most valuable contribution to the literature of menstruation.



## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, November 28, 1877.*

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

#### LOCALIZED COLITIS—TRAUMATIC IN ORIGIN—DEATH FROM PERITONITIS.

DR. LOUIS H. SAYRE presented a specimen of intestinal invagination removed from a young gentleman, aged nineteen years, to whom he was called on the previous Tuesday afternoon. The only symptom complained of was a slight pain in the epigastrium. The pulse was 100, and there was no elevation of temperature. He was, however, intensely restless, and continued in that condition two days, when peritonitis suddenly showed itself, from which he quickly sank and died.

On post-mortem examination the abdominal walls were covered with a recent exudation of lymph. There was some slight amount of serum in the peritoneal cavity. At the junction of the transverse and ascending portions of the colon there was a hardened mass, caused by the accumulation of feces, and the intestinal wall containing it was attached to the lower lobe of the liver evidently by old adhesions. The recent peritonitis had its focus in this point. On inquiring more particularly into the primary cause of this localized inflammation, it was ascertained that three years previously the patient had been struck in the side, that symptoms of inflammation had followed, and that since that time he had suffered more or less from constipation. It appeared that the fatal peritonitis was the third one from which he suffered since the injury. The intestine was invaginated and completely plugged.

DR. L. A. SAYRE remarked that he had seen the case with his son, and had been struck with the extreme restlessness of the patient and the anxious expression of the countenance. Another remarkable point was the absence of any symptoms of peritonitis until a few hours before death. He was of the opinion that the invagination commenced subsequent to the first inflammation following the injury.

DR. JANEWAY called attention to a sacculum in the gut, but no rupture was discoverable.

#### IN CASES OF SPONTANEOUS GANGRENE SHALL AMPUTATION BE PERFORMED?

DR. SANDS presented a set of specimens illustrating the changes in the arteries in a case of spontaneous gangrene. He first saw the patient, a gentleman aged 49 years, in consultation with Dr. H. T. Hanks, August 15, 1877. He learned that there was a history of repeated attacks of rheumatism, the earliest occurring in the twentieth year, and some of them being attended with cardiac symptoms. During April of this year it was further stated that the patient while in bed became suddenly and completely unconscious, and remained so for a period of three hours. It did not appear certain from the history whether this attack was due to faintness or to cerebral disease, but it was conjectured by Dr. Hanks that the cause of the trouble was an embolus plugging up some of the cerebral vessels. Dr. Hanks saw him August 7th, when he had been suffering for six weeks with pain in the lower extremities, they being most marked in the calves of the leg and most intense in the left limb. August 6th,

while absent in the country, the patient noticed a violet discoloration on the fourth toe of the left foot. Becoming alarmed, he repaired to the city and consulted Dr. Hanks, who at once appreciated the fact that the discoloration was an indication of impending gangrene. At that time both lower extremities were carefully examined by Dr. Hanks, who found them exceedingly cold and painful, and with very feeble circulation. No pulsation could be detected in any arteries below the femoral on either side at the apex of Scarpa's space. Four days after the beginning of the gangrene in the left foot a similar spot appeared in a similar place on the right foot. On the 15th, when Dr. S. saw the case, several toes of the left foot and two of the right foot were discolored. The heart had been carefully examined by Dr. H., and found to beat very feebly and with marked irregularity. No murmurs were detected, although they were supposed to exist and to be masked by the feeble action of the heart. When Dr. Sands returned in October from a visit into the country, he was somewhat surprised to learn that the patient still survived. The gangrene had then progressed until it involved the feet on both sides up to the line of the tarso-metatarsal joint. The question of amputation was considered but not advised. A short time previous to his death the patient showed evidences of pneumonia of the right lung.

The autopsy was made by Dr. Satterthwaite, who furnished the following account:

*Post-mortem examination.*—Body extremely pale in color. Emaciation marked. Rigor mortis of usual degree.

*Thoracic cavity.*—Heart abnormally large, and externally well supplied with fat. Apex in axillary line; transverse diameter increased; left ventricle considerably hypertrophied; both ventricles dilated; aortic orifice calcified and narrowed; mitral also calcified, and so narrow that the little finger could not pass through it (button-hole aperture). Both ventricles and auricles distended with blood. Pericardial sac contained about three ounces of serous fluid, somewhat darker than usual, but transparent. *Right lung* normal, except for hypostatic congestion in posterior and inferior portions. Post portion of upper lobe adherent to walls of chest by moderately firm adhesions.

*Left lung.*—Upper and anterior portion of upper lobe firm and non-aerated. On section, appeared to be the seat of hemorrhagic infarctions of various dates (with surrounding pneumonia). Hypostatic congestion of posterior part of lower lobe, on the inferior surface of which are some shreds of recent lymph. *Pleural cavities* contain an excess of fluid. *Kidneys.*—Right cortex thickened and adherent, and surface in places granular; numerous markings of old and more recent cicatrices. In some can be seen yellow colorations, as if of blood-pigment; in one or two appeared to be a plugging of the vessel (indicative, presumably, of infarctions). Left, in about the same condition. *Spleen.*—Small, contracted, and contains one or more calcific deposits, and showed several cicatrices. *Liver.*—Right lobe appeared fatty; left, thin and marked by a slight unevenness of surface, as if cirrhosis were commencing. Stomach, pancreas, and intestines and genito-urinary apparatus not examined. *Aorta.*—Abdominal aorta marked by atheromatous (fatty, not calcareous) patches throughout its whole extent. Just above the bifurcation an atheromatous ulcer of an irregularly oval shape; the right common iliac thickened by calcific deposits, and ulcerated at points. Occlusion of the left femoral was noticed just below the point where the profunda was given off. From this point downwards the vessel was filled with a firm plug. The

plugging in the right femoral occurred somewhere in the lower part of the vessel before it became the popliteal. Microscopically, it was found that the right lobe of the liver was fatty and pigmented. In the kidney the chief change was in the tubules, where the epithelium was in many places replaced by granular matter.

DR. SANDS thought that the specimen was interesting as showing how very extensive the plugging of the arteries is likely to be when the gangrene is limited in extent, a fact which enables us to adhere to the rule commonly laid down, not to amputate in such cases. He had seen three other cases of spontaneous gangrene, in all of which the question of amputation had arisen, and in which it had been decided in the negative. He had never met with a case of spontaneous gangrene in which either of the arteries of the leg were pervious. He suspected that gangrene did not commence until the obstruction above was considerable in amount and extent. The question had been raised in the case presented that evening, whether the morbid process was one of embolism or thrombosis. It might have been both. It seemed, however, more likely that the process was one of arteritis primarily. He did not know of any case in his own experience of progressing senile gangrene in which amputation had proved successful. He was, however, aware that amputation had been successfully performed high up on the thigh by James, of Exeter, but that was altogether an exceptional case.

DR. J. C. PETERS had seen a case somewhat analogous to the one related by Dr. Sands. The patient was a gentleman seventy-five years of age, who suffered from frequent attacks of gout with cardiac paroxysms. Following one of these attacks there was arterial obstruction in the right leg. The patient died comatose before gangrene was fairly developed. The valves were perfectly sound, and the aorta was remarkably free from atheroma, still there did not seem to be a doubt that there had been a plugging of both the arteries of the brain and of the leg from emboli. No thorough post-mortem was allowed.

DR. WEIR referred to a successful amputation for gangrene performed by Lister's method.

DR. JANEWAY referred to a case of gangrene of both feet occurring in a woman aged thirty years. Her circulation appeared to be good, and there did not seem to be any cause for the trouble. At the autopsy a small thrombus was discovered just above the heart valves, in the aorta, not more than half an inch in length and a quarter of an inch wide. Portions of this were broken off, and caused an obstruction in the lower part of the femoral on both sides. There was a spot of ulceration at the seat of the thrombosis in the aorta.

DR. SANDS referred to a case of gangrene of the leg for which amputation was performed by Dr. Gouley at the knee-joint, and through presumably healthy tissue. The principal feature of the operation was, that no arteries bled; even the popliteal was plugged. Gangrene subsequently appeared in the stump, and the patient died.

DR. SAYRE stated that he had operated upon a case the exact counterpart of Dr. Gouley's, except that the patient recovered. The amputation was by Stephen Smith's method, at the knee-joint.

CARDEN'S AMPUTATION—RELIABILITY OF CATGUT LIGATURE—SECONDARY HEMORRHAGE.

DR. BRIDDON presented a specimen of caries necrotica opening into the knee-joint, and read the follow-

ing history, for which he was indebted to Francis Huber, House Surgeon to the Colored Home:

W. E. L., æt. 21; S.; waiter; brown skin; admitted March 27, 1877. Family history excellent.

With exception of whooping-cough, patient is not aware of having had any of the other diseases of childhood. Had plenrisy on left side about eight years ago; tertian intermittent fever two years ago; gonorrhœa a year ago. About three years ago he had buboes (the one on right side suppurating.) There is no history of any sore on penis, nor evidence of secondary syphilis. The patient is temperate and regular in his habits, and as a general thing has enjoyed fair health. About a year ago he sprained his left knee. Soon the joint began to swell, and he limped a little in walking. In the morning the knee would be stiff, but upon exercising this would disappear. The swelling in the joint has continued in spite of treatment.

On admission, patient is well nourished; complains of swelling and stiffness of left knee. Upon examination, chronic synovitis is diagnosed.

The appetite is fair; the bowels are constipated; tongue is clean. P., 72; R., 21; T., 99°. Urine amber, acid; 1020; no albumen.

October 15, 1877.—As the patient did not improve under treatment followed, the limb was put up (about six weeks ago) in plaster-of-Paris. A fenestra having been made over the anterior aspect of knee, the exposed surface was anointed with oleate of mercury (five per cent.) every other day. The patient complaining of pain in the part, the dressing was removed, and, upon examination, indistinct fluctuation could be discovered in tissue about the joint, no acute symptoms having been perceived.

October 20th.—As pointing was taking place at one spot, an exploring syringe was introduced, and bloody pus withdrawn. The abscess was then laid open, and a careful digital examination by Dr. Briddon failed to discover any direct communication between the joint and the peri-articular abscess. Very little fluid could now be detected in the joint.

November 3d.—Tissues about the joint are very much swollen; considerable lateral motion is found. Pain excessive on moving the limb. The patient has lost some flesh; his condition is not as good as it was three months ago. Diagnosis, fungous arthritis.

November 7th.—Re-examined to-day by Drs. Briddon and Mason. Find that the patient can bend the knee to some extent; can twist the leg, and bear his weight upon the affected extremity. Very little pain is experienced in the posterior portion of knee, or when the articular surfaces are approximated. Greatest pain is felt in external lateral ligaments. Temperature since the abscess has been opened is more or less elevated. Though no direct communication can be detected between the joint and the abscess, yet when the parts are pressed upon a fluid resembling synovia, tinged with blood, can be made to exude.

November 8th.—Physical examination shows feeble respiratory murmur on both sides (more marked on left side). Voice not especially exalted; moist râles at apex of right lung posteriorly; left lung expanding less perfectly than the right. No change on percussion.

Heart.—A distinct aortic systolic murmur (somewhat harsh in character) is heard on auscultating the heart.

November 10th.—To-day the patient was etherized, and, after further consultation with Drs. Mason and Sabine, Dr. Briddon proceeded to amputate the limb. The operation was done antiseptically, the details insisted upon by Mr. Lister being followed to the letter. The limb was removed above the condyles of the femur,



Carden's operation, with a short posterior flap, being performed. Three arteries only had to be ligated. As a portion of the pyogenic membrane of the peri-articular abscess was adherent to the anterior flap, it was removed by scraping with a Simon spoon, and a sinus passing upwards was treated in the same manner. A drainage tube was put in, and the flaps were then approximated by numerous antiseptic sutures. All this time the spray had been playing upon the limb. The protective antiseptic gauze, etc., were then applied, and the stump bandaged first with antiseptic gauze (three inches wide), then with a common muslin roller.

When the joint was opened a considerable amount of grumous material escaped. On inspection, the joint was found completely disorganized, the fibrous structure swollen and succulent, the synovial membrane in an advanced condition of pulpy degeneration, inter-articular fibro-cartilages almost completely destroyed; cartilages of incrustation absorbed; on the external border of the external condyle a small carious cavity, and another cavity in the head of the tibia containing a sequestrum.

*November 11th.*—The patient rallied well after the operation, and in four or five hours felt very comfortable. This morning about five o'clock slight oozing of blood occurred. Soon stopped, but recurred again in about half an hour. In the absence of Dr. Briddon, the dressing was removed by Dr. Huber, the house surgeon, the spray playing on the limb all the time. As the blood then began to flow from both ends of the drainage-tube in a stream, a Petit's tourniquet was applied, and the hemorrhage controlled. The sutures were then removed (the lips of the wound being in a fair condition to unite), the clots turned out, and then it was discovered that the bleeding came from the popliteal artery. This was ligated with catgut ligature of same quality as that which had been applied before, the wound washed, a drainage-tube put in, and the edges of the flaps approximated by carbolized silk sutures. Everything was done antiseptically, as on the previous day. The patient rallied well after the second operation, and in a few hours was in a very contented frame of mind.

*November 12th.*—Patient appears to be in excellent condition. Eats well and rests well. Temperature not elevated to any extent.

*November 13th.*—Dressing removed, and a new one applied. No sloughing of flaps. Slight grumous discharge from drainage-tube.

*November 15th.*—Drainage-tube removed, and a new dressing applied. Patient doing well.

*November 17th.*—Every other silk suture removed; gaping of edges to some extent; very little union by first intention. Slight bagging in posterior flap. Discharge grumous and somewhat offensive. New dressing applied.

*November 19th.*—Dressing removed and remaining sutures taken out; gaping to such extent then occurred that adhesive plaster had to be applied. A pocket of some size existed in the posterior flap, filled with grumous pus. Suppuration very free.

Antiseptic dressing discontinued, and dry substituted. Dr. Briddon expressed the opinion that he did not consider it proper that the accident that changed the character of the operation-wound should be charged to the method, but rather to its defective application, the insecure manner in which the ligature was applied to the main artery; the reliable character of the material used was proved subsequently by the fact that gut of the same size, and prepared at the same date, was used to secure the vessel from which

the recurrent hemorrhage occurred; that although the stump was opened with all precautions under the spray, the manipulations had interfered with the process of union so as to invite suppuration; that at this time, nine days after the operation, suppuration was so free that disinfection could have only been accomplished by a free application of chloride of zinc; that such interference with a stump that had been the seat of recurrent hemorrhage would be apt to disturb the thrombus in the main artery, and he considered it safest to resort to ordinary dressing.

*November 21st.*—To-day a clot was washed out from between the edges of the wound. Grumous pus is still discharged in considerable quantities.

*November 28th.*—Since last note the dry dressing has been renewed daily, the wound being washed out with sol. acid. carbolic. ( $\frac{3}{4}$  to Oj.) Union by granulation has taken place over about nearly the whole extent. Remaining portion looks very well. Suppurative process slight; pus laudable. Patient's general condition excellent. The stump is admirably formed and bears considerable pressure.

Dr. MASON remarked that Dr. Briddon's was the third case in which he had seen secondary hemorrhage following the use of a catgut ligature, and for that reason he was a little suspicious of its safety. Dr. Sayre concurred in the latter view.

Dr. WEIR stated that Mr. Bryant's experience was to the effect that the catgut ligature was safe, and all things considered, was the best at our disposal. Mr. B. was of the opinion that the middle and internal coats were divided at the time of the operation. Dr. W. was in the habit of using a third knot for extra safety.

Dr. BRIDGON said that the ordinary square knot would not untie by being soaked in a fluid, even for a considerable period.

Dr. SANDS had used catgut ligatures in three sections in securing the pedicle in ovariectomy, and with success.

Dr. MASON thought that although the catgut ligatures might be applied with safety in the continuity of an artery, they were liable to slip from the end of the vessels in the case of stumps. Generally speaking, these ligatures were not strong enough to allow of being tied tightly.

Dr. WEIR remarked that Lister was in the habit of soaking the ligatures in the serum of bullock's blood for twenty-four hours, and then testing them for strength.

Dr. W. T. BULL also reported a case of secondary hemorrhage following the use of the catgut ligature. The patient sustained a severe comminution of the leg as the result of a street-car accident. Amputation was performed through the condyles of the femur. The antiseptic method was employed, but there was sloughing of one flap, and that condition continued in spite of treatment until the eighth day, when a profuse secondary hemorrhage occurred while the patient was asleep. The orderly in charge, instead of stopping the bleeding by pressure, ran for the doctor, and when the latter arrived a clot had formed and the hemorrhage had ceased. The patient did not rally, and died in the course of a couple of hours afterwards. The artery, on examination, was found discolored and sloughy for a distance of a quarter of an inch on the cardiac side of the point of ligature.

#### DOUBLE FRACTURE OF FEMUR, AND DIFFICULTY IN DIAGNOSIS.

Dr. BULL also presented a remarkable double frac-

ture of the femur, one fracture comminuted in character and occurring in the centre of the shaft, the other a vertical fracture through the cervix femoris. The patient, a female, died of septicæmia on the sixth day. The fracture at the neck of the femur was not suspected; in fact, the question occurred how, under the circumstances of an additional fracture in the shaft, such a lesion could be diagnosed.

#### TYPHOID FEVER WITHOUT DIARRHŒA.

DR. JANEWAY presented specimens removed from two cases of typhoid fever, the points of interest of which centred in the absence of diarrhœa.

DR. ROBINSON referred to a case in point in which, because there was no diarrhœa, other physicians could not believe it to be one of typhoid fever.

The Society then went into Executive Session.

## Correspondence.

### QUININE AND CINCHONIDIA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—On the 15th of December the retail price of quinia sulphate was \$3.30 to \$3.50 per oz., avoirdupois, and that of cinchonidia sulphate 70c. to 80c. About the same time it was stated by one of the prominent manufacturers of cinchona alkaloids that, "from April to September, inclusive, our sales of sulphate of cinchonidia were double those of sulphate of quinia."

Those who have given even a small amount of attention to the medical journals of the past year, have not failed to observe the number of communications from physicians all over the country, speaking in most favorable terms of the merits of cinchonidia sulphate as compared with the more expensive alkaloid. Many of these letters have been republished and again circulated in the interests of manufacturers and dealers, and it is not unreasonable to presume that this has been the principal cause of the increased demand for cinchonidia sulphate.

In view, however, of the considerable difference in price and the alleged similarity in therapeutical effects of the two salts, one is naturally led to conjecture that this increase may also depend somewhat upon a disposition to substitute the cheap for the expensive salt when the latter is prescribed.

I have no doubt that cinchonidia sulphate will answer most purposes fulfilled by quinia sulphate in a majority of cases, but I can hardly believe that the demand for it, on the part of physicians, has increased within a year or two in a way to correspond with the statement above quoted.

Another point to which I wish to call attention in this connection, and which comes within the range of my own experience, is that in some cases where I have prescribed cinchonidia sulphate, patients have reported that they paid nearly the same price as when quinia sulphate had been ordered.

F. A. C.

URINARY EXAMINATIONS.—Dr. William S. Ely, of Rochester, has devised a very convenient blank for recording urinary examinations.

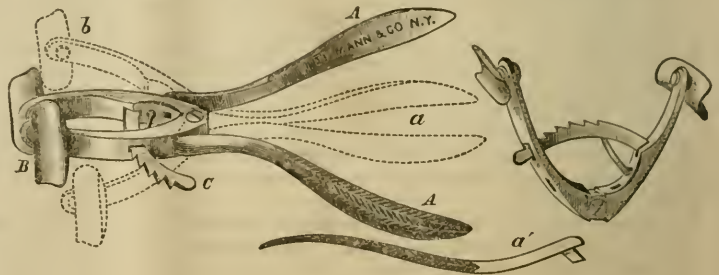
## New Instrument.

### A NEW MOUTH-GAG.

By ROBERT F. WEIR, M.D.,

SURGEON TO THE NEW YORK AND ROOSEVELT HOSPITALS.

The present instrument is intended to more satisfactorily accomplish an end than has hitherto been done by the various mouth-gags now in use. The one devised by T. Smith, of London, and modified by Whitehead, is cumbersome, and the tongue-depressor attached to it is liable to cause interference with the breathing during the state of anaesthesia. Francis Mason's gag, otherwise excellent (*British Medical Journal*, January 22, 1876), has such awkwardly long handles attached to it that they are in the way of the operator and his assistants. The gag which has been of the most service in the operations performed on the mouth at the Roosevelt Hospital, has been that known as Hutchinson's (of London). It is depicted on page 606, Holmes' "Treatise on Surgery" (American edition), and commends itself by the small space it occupies in the mouth. It is, however, somewhat difficult to introduce, unless the jaws are first considerably separated; and also, by reason of its expansion being limited by the elasticity of the flat steel springs which enter into its construction, it is frequently dislodged by the voluntary or involuntary efforts of the patient. The first objection is, however, the most important, and to meet this as well as the last, the changes depicted in the accompanying woodcut have been made.



Instead of trusting to the action of a spring, the hinge has been substituted, with movable handles (A, a') thus permitting the jaws of the gag to be entirely closed (B) and facilitating its introduction between the teeth. It also allows, by the leverage of the handles, the fullest distention of the mouth. After this has been satisfactorily accomplished, the little ratchet holds the jaws firmly apart. This ratchet is easily unloosened; in the diagram, however, it is placed too far from the hinge. After its introduction, as in Hutchinson's instrument, it is turned to one or the other side of the mouth, out of the surgeon's way, on the pivots by which the tooth-cups (duly lined with lead or rubber) are attached.

It has now been tested a number of times, and has been found to answer its purpose very efficiently.

ST. LOUIS MEDICAL AND SURGICAL JOURNAL.—Drs. William S. Edgar and D. V. Dean have retired from the editorship of this journal; the former on account of failing health, and the latter in consequence of press of other business. They are to be succeeded by Drs. Thos. F. Rumbold and Hiram Christopher.



## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 23 to December 29, 1877.*

SMART, CHAS., Capt. and Asst. Surgeon. Granted leave of absence for one month. S. O. 260, A. G. O., Dec. 21, 1877.

KING, J. H. T., Capt. and Asst. Surgeon. Granted leave of absence for one month, on surgeon's certificate of disability. S. O. 214, Dept. of Texas, Dec. 19, 1877.

HAVARD, V., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort A. Lincoln, D. T. S. O. 177, Dept. of Dakota, Dec. 20, 1877.

DAVIS, WM. B., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Totten, D. T. S. O. 177, C. S., Dept. of Dakota.

## Medical Items and News.

CONTAGIOUS DISEASES.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two weeks ending December 29, 1877.

| Week Ending  | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-Spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|--------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Dec. 22..... | 0             | 21             | 63             | 4                          | 56       | 71          | 0          |
| " 29.....    | 0             | 13             | 90             | 2                          | 50       | 82          | 0          |

DR. JUAN B. PONCE DE LEON departed this life on Friday, the 4th ult., succumbing to an exhausting attack of an acute cerebral disease. He was born in Matanzas, Cuba, and completed his scholastic course of studies at the University of Havana. At the age of eighteen he came to New York City and matriculated at the College of Physicians and Surgeons, from which he was graduated in 1860.

Then and ever since all who knew him recognized in him a dutiful student of the sciences, and an earnest devotee to medicine. His professional studies were extended to Europe, and from Paris he brought away testimonials from a number of the eminent leaders of the French school. He served as surgeon both in the hospital and on the field in our civil war, and since its close has practised general medicine in this city, in Westchester, and in Mount Vernon, N. Y. He was a member of the Westchester County Medical Society.

In the profession he was esteemed and respected, in his social relations beloved, and he will ever be remembered by his numerous friends as a conscientious and good physician, and an honorable and generous man.

DIALYZED IRON AS AN ANTIDOTE FOR ARSENIC.—Dr. Thomas B. Reed reports (*Phila. Med. Times*, Dec. 8, 1877) a case of poisoning by arsenic cured by the administration of dialyzed iron (Wyeth's). The dose was half a table-spoonful well diluted in water, repeated at first every ten minutes, and then every half-

hour, until several doses had been administered. The first dose relieved all the burning pain and other suffering.

DEATH FROM INHALATION OF ETHER.—We regret to have to record a case in which the administration of ether terminated fatally, and which occurred in the practice of Dr. G. M. Lowe, of Lincoln. The patient was a lady forty-eight years of age, who had discharged the duties of a governess in the family of Dr. Lowe, and had for some time past been suffering from cancer of the breast. A consultation was held, and the removal of the tumor determined upon. The administration of the ether was confided to Dr. Mitchinson, who had large experience in its employment. All proper precautions appear to have been taken. Dr. Mitchinson examined the heart, and, finding it rather feeble, directed the patient to take a little brandy and water. She was quite cheerful, though somewhat nervous. Half an ounce of ether was poured on the inhaler, which was placed over the mouth in the usual way. The valves were open, and gave free ingress and egress to the air. After a few inhalations the patient's face suddenly became turgid and the hands white. The inhaler was at once removed, the tongue brought forward, cold water dashed over the face, and the chest rubbed with brandy; but the breathing became stertorous, the face more and more congested, the pulse failed, there was an effort at vomiting, and death took place within a few seconds. A post-mortem was made by Mr. T. Sympton, the Senior Surgeon of the Lincoln County Hospital, assisted by Mr. T. Brook. On examining the heart, they found that it was feeble and flabby, and some of the tissue, being afterwards examined, was found to have undergone fatty degeneration. The liver was firm, but the whole of its upper surface was attached by old adhesions to the under surface of the diaphragm—the muscular partition between the chest and the abdomen. There was a little effusion of serum on the brain. The air-cells of the lungs were dilated. The valves of the heart were in a perfectly healthy condition. They also carefully examined the throat, and found nothing there to throw light on the cause of death. The stomach was perfectly healthy; the deceased had not partaken of any food for some time before the ether was administered, which is a point of great importance. Mr. Sympton attributed the fatal result to failure of the heart's action, and the impairment of the functions of the diaphragm in consequence of its attachment to the liver. The fibres of the heart were so feeble as to be unable to bear any extra strain, and the efforts at resuscitation proved abortive owing to the failure of the functions of the diaphragm. Mr. Brook's evidence was to the same effect. They noted, in addition, that the right side of the heart was gorged with blood, that the walls of the right ventricle were very thin, and that there were some nodules of cancer in the liver and lungs.—*Lancet*, Nov. 17.

HOW TO INTRODUCE THE HYPODERMIC NEEDLE.—Dr. S. J. Allen, of White River Junction, Vt., writes: Placing the palm of the left hand beneath the patient's arm or leg, with the thumb and fingers draw the skin tight over the upper aspects of the limb, in which state you have an unyielding integument. Then holding the instrument with the thumb and index finger of the right hand, place the bevelled side of the point upon the place you have selected, at a proper angle with the surface; then, with a quick forward movement of the thumb and index finger only, keeping the hand immovable, thrust the point through the skin into the subcutaneous tissue. This manœuvre, if done

quickly, will inflict little if any pain, and the patient will thank you, especially if he has been previously subjected to the almost universal method of pinching up a fold of integument for the puncture.

DR. CHARLES H. BURNETT, the author of a treatise on diseases of the ear, and to whom reference was made in the recent article of Dr. Sexton, is a resident of Philadelphia instead of Washington, D. C.

**TURBULENT STUDENTS IN PARIS.**—The medical faculty of the University of Paris has been much exercised of late over some innovations that have been instituted by the Minister of Public Instruction. A protest was drawn up and signed by all of the professors, with the exception of one, Mr. Chauffard, who declined to sign it. This exhibition of independence apparently outraged the delicate sensibilities of the medical students, and they determined to read the recalcitrant professor a lesson. A body of them accordingly attended his lecture, and drowned his voice by cat-calls, snatches of popular melodies, and other devices for silencing unpopular speakers, that are familiar to unregenerate medical embryos. The professor endured these annoyances for about five minutes, and then quietly left the room. This was a victory scored for the students, but they were not left long in the enjoyment of it. A few days later a notice was posted up, to the effect that hereafter only certain classes of students will be admitted to the lectures of Prof. Chauffard, and they only on the presentation of their matriculation tickets.

**COST OF THE GERMAN UNIVERSITIES.**—The twenty universities of Northern Germany cost the country annually about two millions of dollars. The University of Leipzig alone receives \$250,000. These twenty universities have a staff of 1,250 professors, who receive salaries varying from \$500 to \$3,000. The young man who embraces the career of teaching can calculate on having a salary of \$2,000 when he reaches the age of thirty-five. He is certain also of a pension when retired. Germany has a university for every two millions of inhabitants, Austria one for five millions, England one for seven millions, and Switzerland one for one million.

**POPULATION OF FRANCE.**—According to the census of 1876, the increase in the population of France in the four preceding years was 802,867, or 2.17 per 100; in 1872 the population numbered 36,102,921, and in 1876, 36,905,788. Nearly one-third of the increase was due to immigration, chiefly from the lost provinces of Alsace and Lorraine. The average annual excess of births over deaths in the whole of France was only 138,000. This is a strikingly small increase for a country as populous as France, and it has aroused serious apprehensions in the breasts of Frenchmen for the future of their country. In twenty departments there was an actual diminution of population; according to the report the principal causes of this were a decrease in the number of marriages, an excess of deaths over births, changes in the agricultural methods, and emigration of country people to the towns. The documents do not give figures from which the relative influence of these different causes could be deduced, but it is probable that the last mentioned was the most active in the production of the effect. Nearly two-fifths of the general increase of the population was in towns of more than 30,000 inhabitants. This movement of rural populations towards the cities is not a new one, nor is it peculiar to France; but, when considered in connection with the relatively small number of births, it has a more

vital and alarming significance in that country than in any other country in Europe.

**PROSTITUTION IN FRANCE** is encouraged there by certain economists, on the ground that over-population is prevented, and that the country is thereby made richer. Conception is proved to be very rare among regular prostitutes, and when it does occur, miscarriage is almost the invariable rule. This lowers the birth rate, it is true; but how about the source of all wealth—human labor. A tailor who habitually sold his garments "below their actual cost," was asked how he made money by the operation. "Because I sell so many of them." This is probably the way France will become enriched by the adoption of its new doctrine.

**ST. LUKE'S HOSPITAL.**—Drs. George Wheelock and W. M. Polk have been appointed as attending physicians, *vice* Drs. Leaning and Packard, resigned by reason of expiration of service; and Dr. G. H. Wynkoop as surgeon, *vice* Dr. J. L. Little, whose term of service has also expired.

**CRANIA OF THE BOTANS OF FORMOSA.**—Dr. Stuart Eldridge recently read some very interesting notes on the above subject before the Asiatic Society of Yokohama, Japan. The paper, which is now published, is accompanied by some very interesting photographic illustrations.

**HORSEFLESH.**—During the first six months of 1877 the butchers who deal in this commodity in Paris have delivered to consumption 5,283 horses, donkeys, and mules, which furnished 959,730 kilos of meat (net). During the corresponding period of 1876 the number of these animals was 4,422, which gave 803,500 kilos. The increase is, therefore, of a marked character. The persons who endeavored to popularize the use of horseflesh affirm that it is more wholesome and more nourishing than beef, although often not quite so agreeable. Paris contains more than fifty butchers' shops specially devoted to this article. A very good pot-au-feu may be made with the inferior morsels at the price of 25 centimes and 30 centimes the pound. The choicest pieces—fillet, undercut, etc.—are much higher in their cost.—*Veterinary Journal*, London.

**ACTION OF HEMLOCK SEEDS ON MICE.**—After verifying the fact that belladonna is not poisonous to rabbits, M. Hoekel undertook some very interesting experiments to ascertain the effects of the different solanace on rodents and marsupials. Among other experiments he took two mice and fed them entirely on hemlock seeds for eight days. They did not take kindly to the new diet, and even seemed to suffer some from it at first. At the end of the eighth day one of them was very sick, but the other remained healthy. On the next day the experimenter found only the relics of the sick mouse; the survivor had evidently tired of the vegetable diet, and made a meal of his feeble companion. During the eight days that the experiment continued, the animals devoured doses of hemlock that would have been fatal to a man.

**A CASE OF TRIPLETS.**—Mme. Saffroy, a midwife of Etampes, reports this case: She was called a short time ago to attend a woman in labor at full term. A male child was born at 11 A.M.; a second child, of the female sex, at 12 M.; and a third child, also a girl, at 12.30. The two first children presented the head, the last the breech. There were three separate placentas. Delivery was easy, but was followed by hemorrhage. The children were viable and well formed, and weighed about 6½ pounds apiece. Eight years before the mother was delivered of twins, who are still living.



## Original Communications.

## THE TREATMENT OF DIPHTHERIA.

By C. E. BILLINGTON, M.D.,

VISITING PHYSICIAN TO DEMILT DISPENSARY.

In this paper will be presented the method and the results of the treatment of diphtheria in the north district of Demilt Dispensary during the past three years, with some accompanying observations and corroborative facts. This will necessarily include a brief recapitulation of some statements that have previously been published (Transactions of the New York Academy of Medicine for 1876, page 286). Except in the form of brief abstracts, they have come into the hands of only a comparatively limited number of the profession. It may, perhaps, be admitted that their practical importance renders them worthy of general consideration.

In 1869 I was appointed (out-door) visiting physician to Demilt Dispensary. I had previously become, by some sad experiences, intensely interested in the problem involved in diphtheria—a problem in regard to which the confusion of the young practitioner could only be “worse confounded” by the chaos of conflicting solutions afforded by the literature of the subject. I therefore eagerly availed myself of the opportunities of studying it which occurred in increasing numbers each year in this service.

I indulge in so much of personal history to show that the beliefs and the practice with which I was prepared to encounter the great epidemic of 1875, were no recently formed conclusions—bore no relation to any theories of others, “bacterian” or otherwise; but rested on the solid basis of induction from independent, careful, and oft-repeated clinical observations.

The most important of these beliefs was, that diphtheria is, to all practical intents at least, primarily a local disease, becoming constitutional only by absorption. Some of my reasons for this belief may be found in the paper above referred to; others, in the New York MEDICAL RECORD, March 3, 1877, page 140, and still others may at some future time be published.

This view suggested the development of an appropriate method of treatment, and was in turn corroborated by its results—as strikingly in cases of failure as in those of success.

I shall first present the method of treatment. Simple as it is, it was the result of many anxious trials of a variety of agents in various combinations through alternate success and failure for several years preceding 1875.

That I had, during this period, ample opportunities to become familiar with the *diagnosis* of the disease in question, will hardly be disputed.

For the *rationale* of the employment of these combinations I must refer the reader to my previously published paper.

## FORMULÆ.

No. 1. *Iron and Glycerine Mixture.*

R. Tinct. ferri chloridi..... fl. 3 i.—3 iss.  
Glycerine,  
Aque..... ss fl. 3 i.  
M.

No. 2. *Chlorate of Potash Mixture.*

R. Potassæ chloratis..... 3 ss.—3 i.  
Glycerine..... fl. 3 ss.  
Aque calcis..... fl. 3 ijs.  
M.

The weaker strength indicated of both mixtures is the one I generally employ.

I formerly used for a time and published as a substitute for No. 2, a combination of salicylic acid,  $\mathfrak{D}$  i.; sulphite of soda, 3 i.; glycerine,  $\mathfrak{Z}$  ss.; water  $\mathfrak{Z}$  ijs. As this is less pleasant than No. 2, and probably no more efficacious, I have discontinued its use.

No. 3. *Spray Mixture.*

R. Acidi carbolici.....  $\mathfrak{M}$  xv.  
Aque calcis..... fl.  $\mathfrak{Z}$  vi.  
M.

To be used with a small hand atomizer, which I much prefer to the steam apparatus. Codman & Shurtleff's No. 56 is the most convenient. This mixture is more pleasant and less irritating, and probably more efficacious, than the more complex and stronger ones which have lately been much used. It is of unquestionable utility in laryngeal implication. Its pleasantness any one can test by throwing it in spray into his own mouth and throat.

## RULES FOR TREATMENT.

I.—Give a teaspoonful of No. 1 and of No. 2 alternately, every half-hour, except at night, when the patient may be allowed to sleep for an hour or two at a time.

II.—Spray the throat with No. 3 for several minutes at a time whenever the above mixtures are given—that is, every half hour. It is essential that the nurse be carefully instructed in the proper method of doing this. The mouth must be opened widely. When the child is too young to do this, the spraying must be omitted.

III.—When there is nasal implication, the nose should be thoroughly syringed out with warm or tepid salt water, once, twice, or three times a day. I have lately employed no other agent. It should be done with the patient's head inclined forward, after the method which is described in my above-mentioned paper. It is very important that the physician know how to do this well, and, generally, *do it himself*. I have always used a two-ounce hard-rubber car-syringe. It is absolutely essential that this have a suitable nozzle, which is not always the case.

IV.—Do not (as a rule) apply any brush or swab to the throat. I sometimes throw a drachm of No. 1, with a syringe, directly against the affected surface in the throat.

V.—Do not (as a rule) give any quinine or other unpleasant medicine to children. This rule is of great practical importance.

VI.—Do not (as a rule) give alcoholic stimulants. Call this rank heresy—as the majority will! It is none the less true that your success will be greater without them. There are, of course, a few exceptions; those are the cases where a child that cannot be induced to take other nourishment, will take weak milk-punch or egg-nog.

VII.—Nourish the patient with an abundance of cold milk, given frequently, to which a little lime-water may often advantageously be added. This rule is of the greatest importance. Even a bad case may be regarded favorably while the patient continues to take nourishment well. When the stage of extreme exhaustion has been reached in bad cases, juice

squeezed from beefsteak is a valuable addition to the bill of fare.

Simple as this method of treatment seems, its successful application in bad or protracted cases will require much skill, tact, energy, and perseverance. Let tad any who may at first fail in its employment hasten to decide that the method is at fault. The efficacy of water in extinguishing fire is undisputed. There are, nevertheless, many instances of its unsuccessful application.

In my previous paper on this subject I used the following language, which some instances that have since come to my knowledge have shown to be prophetic:

"If any shall adopt some of my methods, only to make them *part* of a treatment in which quinine, alcohol, etc., or topical brushing enter, I predict that they will be the very ones who will pronounce my system a failure."

The reviewer of a leading medical journal failed to find anything very distinctive in my method of treatment, because the drugs employed in it had previously been in general use. I specify the following as distinctive features: 1, the combinations, which are especially simple, pleasant, harmless, and efficacious; 2, the convenient and unirritating methods of their application; 3, the frequency of their application. For others I refer back to rules IV., V., and VI.

The results of this method in 124 cases treated by me from the Dispensary, in 1875, were stated by me as follows:

"Of these 124 patients, 94 recovered and 30 died—24 $\frac{1}{2}$  per cent.

"That this rate of mortality is at least fifteen per cent. less than the average from genuine cases of diphtheria during that year in that district will, I think, be admitted by those best qualified to judge; though in the absence of full and accurate returns of the number of cases it would be impossible to prove it statistically. But it yet gives no idea of the actual results of my treatment, which I fortunately can show statistically and accurately.

"Of the 124 cases, 22 passed under the care of other physicians, in most instances after a single visit only, and, in some, without the medicine I prescribed having been procured, leaving 102 that continued under my treatment. Of the 102 that continued under my treatment, 88 recovered and 14 died.

"Of the 22 who passed under the treatment of others, six recovered and 16 died. The extreme badness of these latter results is partly to be accounted for by the fact that some of them were hopeless, and others severe cases, for which, on account of my unfavorable prognosis, other medical aid was called in.

"This is not, however, true of all, fully half of them having been by no means bad when I saw them. Some of them left my care through dissatisfaction at my not using topical applications. The results, in such cases, as I have since learned them, were particularly bad.

"Of the fourteen who died under my care, one was moribund when first seen, surviving only two hours; one was already a hopeless case of laryngeal croup; two others were hopeless cases from extensive membranous affection and marked indications of blood-poisoning. Deducting these, leaves ten deaths out of 98 cases in which the treatment was tested with some degree of fairness, or a little over ten per cent."

These results were obtained under all the well-known disadvantages that attend Dispensary practice, and in a region which, as I showed statistically from the returns of the Board of Health, gave in that year

a larger mortality from the disease in proportion to population than any ward in the city.

With the above I reported still better results obtained by this method of treatment in private practice, which I will not recapitulate here.

That results so favorable should excite incredulity was to be expected. One zealous disputant asserted publicly in opposition to my explicit statements and the probabilities, that my cases must have been "exceptionally mild" ones. The precise opposite was the fact. I cannot, however, deny that my cases may have been, *after a few days of treatment*, exceptionally mild as compared with some others.

From this *résumé* of results already published, I now proceed to those of the following year, 1876. In that year I treated from the Dispensary, 37 cases, of which 29 occurred in the first four months. Then the epidemic quite suddenly abated, and only eight were seen in the remainder of the year.

Of these 37 cases, three passed, after a single visit, under other medical care—with what results I do not know; five others died, and 29 recovered.

Of the five that died, one, aged two and a half years, was moribund with laryngeal croup when first seen, dying in less than ten hours afterward. The only possible remedy, tracheotomy, was refused.

In another case which was bad, but not hopeless, when first seen, I returned on the second day to find the patient moribund. The parents, who were extraordinary specimens of perverse stupidity, acknowledged that they had not used the remedies furnished them, an old woman having told them that the spray would injure the child's eyes! I may here mention that I have in many instances, scarcely more favorable than this in respect to nursing, made up for the deficiency by very frequent visits on the part of myself or my assistants; otherwise I never could have obtained the results I have. In this instance, other engagements made this impossible.

Deducting from the five deaths these two cases in which the treatment was not employed, leaves three deaths out of 32 cases in which it was tested; or, again, a little less than ten per cent.

Among the twenty-nine cases that recovered were a full quota of severe ones, and four were among the very worst that were ever known to recover, as can be attested by competent medical witnesses. I condense a brief account of one of these from notes taken at the time:

Ann McFall, aged three years, 606 Second avenue, March 21, 1876. When first seen, great inflammation and swelling of the fauces; membrane on both tonsils and over soft palate; much enlargement of cervical glands. Extreme nasal affection with profuse sanious muco-purulent discharge; excoriated nostrils and upper lip, and obstructed breathing. A great degree of blood-poisoning was evident from the characteristic hue and expression.

Expecting her death before the next day, treatment was nevertheless begun. The nose was thoroughly cleansed out two or three times every day by syringing with warm salt water, in which I was kindly assisted by Dr. D. C. Comstock. This proceeding was always followed by freer respiration and improved hue of complexion. The one favorable symptom was that the child could be induced to take milk quite freely.

The condition of the patient continued about the same for six days, the membrane having disappeared from the tonsils, but continuing on the faucial arch and uvula, and a large patch having formed on the tongue.



On the 27th the case was seen by Dr. W. T. White, who predicted its fatal termination. For the next five days the patient's condition continued critical, but gradually improved under the use of the same means, which were employed altogether for two weeks before the patient was considered out of danger. This case was repeatedly seen by Dr. W. E. Bullard.

Few cases giving so much evidence of constitutional poisoning as this did, recover. It is to be noted that it was treated without stimulants or quinine.

Over-zealous advocacy may be of great injury to a good cause. I therefore say explicitly that I do not claim that such extremely bad cases as the above can, as a rule, be cured. Constitutional vigor is an important factor, and sometimes of itself produces remarkable recoveries under all kinds of treatment. I do, however, believe, from not a few similar experiences, that this method, when effectively applied, gives, in all such cases, the best, and in some, the only chance of recovery.

It would be unpardonable forgetfulness should I fail to record my great obligations for most valuable assistance in the above-mentioned labors to Dr. D. C. Comstock, and to Dr. W. E. Bullard, who is now visiting physician to the south district of this Dispensary.

Aware that the endless repetition of statistics of cures resting mainly on my own unsupported assertions, could add little to the weight of the original ones, I adopted at the beginning of the past year (1877) the plan of having the cases occurring in my Dispensary service seen and the diagnosis verified by competent, disinterested, and well-known witnesses. Seventeen cases thus occurred during the year. I reserve the details of these cases and their results, with interesting and instructive facts connected with them, for publication when the number of such attested cases shall have become sufficiently large to be authoritative. I will only state at present that most of these cases have been kindly seen either by Dr. W. T. White or Dr. Andrew H. Smith, and that the previous ratio of recoveries has been more than maintained.

I have frequently learned with much gratification that the method of treatment which I have used and advocated, has proved successful in the hands of other physicians. No such instance has given me quite so much pleasure as was afforded by the receipt of the following letters from a stranger. The first one came to me in December last at the Demilt Dispensary. I transcribe it nearly in full, *verbatim et literatim*.

"FREDERICTON, NEW BRUNSWICK,  
DOMINION CANADA, Dec. 5th, 1877.

"MY DEAR SIR:

"In September, 1876, when on my way to Philadelphia to the exhibition, and to again visit the city in which I graduated seventeen years ago, I called in New York on my friend and college mate, Dr. Edward Bradley. I observed on his table your pamphlet on diphtheria. I told him I must read it, having, I believed, had greater experience in that disease than any physician in our Province. I brought it with me, and strange to say, we have not had a visit of the disease in this city till this fall. The first cases did not occur in my families. They nearly all ended fatally. The first I had to treat was my only son, aged fourteen years. He took the disease on the fifth day of his having mumps. In two hours after the first symptoms the whole throat was well covered with false membrane, and he sank at once into a drowsy state, from which he could be roused only with difficulty, the

false membrane spreading rapidly. He was just such a case as was occurring in the city every day, and ending fatally in about two days.

"I took your treatment and followed it to the letter. In twelve hours he was much improved; in twenty-four, throat quite clear, and he seemed bright and asked for food. In forty-eight hours there was not a speck of false membrane in his throat and has not been since. This is the fifth day. He is up about his room now, and took a good dinner of beefsteak. I really feel much indebted to you, and thought I must just say so to you. I cannot but think that had it not been for my good fortune in seeing your pamphlet, to-day would have been the day I should have had to bury my son.

"I have had to treat the disease, I think, oftener than any physician in this city, and am regarded by many as having better fortune than any of my brothers, but I feel that the best I have ever done is far inferior to your treatment.

"May I ask you to forward me your treatment for adults? About one-fifth of our cases are young men and women.

"I have now been put pretty busily at work with this disease, and feel confident that all are going to do well that I can have nursed well.

"Yours, very respectfully,  
T. CLOWES BROWN."

I replied that my treatment of adults differs little from that of children, consisting generally of the administration of Number 1 every hour or half-hour, with very frequent spraying. To this may be added, when indicated, the use of such gargles as a solution of mel. boracis, or of a little alum in sage tea, or the salicylic acid mixture, of which the formula is given above.

I also requested Dr. Brown to favor me with the results in his other cases, and to permit me to publish them with the interesting case of his son.

I received the following reply, dated Dec. 13th:

"Since the case of my son I have had to treat a number of cases of diphtheria, with the best possible result in every one.

"The most malignant case I have had was fortunately my next-door neighbor, a boy aged 13 years. He was ill with a cold about two days, when throat symptoms showed themselves. I at once adopted your treatment—the iron and glycerine mixture, the salicylic acid and soda mixture, and spraying the throat; but in spite of the best nursing I could desire to have, and giving the case nearly hourly attention, it went from bad to worse until the fifth day; then for two days it did not seem that he could recover. He must have suffocated at different times had I not with dressing-scissors removed the partially detached portions of false membrane. At one time I took from his throat a portion of false membrane as large as your twenty-five cent piece and as thick as my little finger. This, for the time, gave great relief. The next day he must have smothered had I not removed the whole palate, which was one solid portion of false membrane as large and long as my little finger to the middle joint. The next day I had the throat clean. Since that time, once in twenty-four hours, it would re-coat itself, and the spraying would remove it—each day the coating getting thinner. He is now well, looks bright, and throat clear.

but could you see it, you would not say he had elongation of the uvula!

"I have seen diphtheria in all forms, but never a worse case than this. I have seen whole families carried to the grave in one week with exactly the same type of the disease this boy had, and I believe he was saved by the iron and spraying. I just followed it up and awaited the result.

"Diphtheria has raged here this fall, nearly leaving childless some families. All plans of treatment have been tried; some relying on the sulpho-carbolate of soda, some on the strong acids, others on carbolic acid; but, to my mind, your treatment in our present state of knowledge cannot be equalled."

I feel greatly indebted to Dr. Brown for these letters and for his permission to make use of them for the following reasons: First, his large experience with the disease enables him to speak with authority of cases and their types. Second, they illustrate the efficacy of this method of treatment, not merely in cases of diphtheria occurring in this city, but in a malignant epidemic in a remote region. Third, the perseverance with which Dr. Brown "just followed it up and awaited the result" in his worst case through seven discouraging days is noteworthy. It is too common to hear a physician, after treating a fatal case of diphtheria, say "*everything* was tried!" Fourth, the close personal attention, and the skill, dexterity, and judgment in the management of that case that are evident in the doctor's unpretentious narrative, show that my method, as carried out by him, was like good tools in the hands of a master-workman. Vacillation, lack of energy, and want of tact and skill, may easily bring discredit upon the best method of treatment in a disease of such critical emergencies as is diphtheria in its bad forms. Fifth, the types of the two cases described in these letters are worthy of consideration. Although the doctor was doubtless right in regarding the former as malignant and of rapidly fatal portent, yet the exudation was evidently comparatively superficial, as was shown by its yielding so readily to proper treatment. The disappearance of the marked constitutional symptoms with that of the exudation is also noteworthy—illustrating the dependence of the former upon the latter. In the second case the exudation was deep in the tissues as well as thick and extensive. Such cases are the most formidable of all. Rapid removal of the membrane or its complete disinfection is impossible. The greater difficulty and the occasional failures in dealing with such cases, however, simply confirm the lesson taught by the other class as to the nature and the only useful treatment of the disease. Sixth, the age of these patients was the one favorable circumstance. Had it been under three years, such intensity of disease must have been almost necessarily fatal for the following reasons: the absorbents are at that age very active; and the resistance that is offered to throat-spraying and other necessary manipulations is a formidable obstacle to treatment. The very failures of the antiseptic method, when intelligently considered, furnish strong confirmation of the great principle that demands its employment.

The few remaining copies of my pamphlet will be gladly furnished, on application, to physicians who may wish to test this method of treatment in an actual epidemic of the disease.

Those who have fairly tested it in a number of cases, or who may hereafter do so, are earnestly requested to communicate to me the results obtained.

157 LEXINGTON AVENUE, NEW YORK.

# CERTAIN GENERAL CONSIDERATIONS RESPECTING THE MECHANICAL TREATMENT OF CHRONIC DISEASES OF THE JOINTS, WITH ESPECIAL REFERENCE TO THE USE OF TRACTION.\*

By L. M. YALE, M.D.,

SURGEON TO BELLEVUE HOSPITAL; LECTURER ADJUNCT UPON  
ORTHOPEDIC SURGERY IN THE BELLEVUE HOSPITAL  
MEDICAL COLLEGE.

At the present time, in this country at least, the use of some form of mechanical appliance is very generally recognized as a proper part of the treatment of a chronic joint inflammation. The form, the principle of action even, of this appliance, will vary with the ingenuity and the pathological views of the practitioner, but the striking fact is that each endeavors to accomplish the cure by the use of an agent the action of which upon the diseased articulation is directly mechanical as distinguished from medicinal. I say striking, because such practice is not only at variance with, but to a great degree is a reaction against, that considered thoroughly established a generation, or less than a generation ago. Mechanical treatment in the sense and for the purposes that it is now used is of very recent date, and its introduction into general use is the work of men still living. The treatment which it has in part displaced, was that based upon the theory of the exclusively constitutional origin of all chronic arthropathies. Any chronic indolent joint inflammation not evidently due to the rheumatic, the gouty, or the syphilitic taint was judged to have its origin certainly in the serofulous diathesis. The inference directly followed that a diathetic disease could be successfully met by constitutional remedies alone. The judiciousness of meeting the arthritic expression of the diathesis by appropriate local surgical treatment was rarely appreciated, and the management of a diseased joint was generally as purely medical as that of a strumous adenitis for example; amputation in the one instance, extirpation in the other, being resorted to when medical resources had failed.

Probably the more practical surgeons always resorted to local support of a diseased joint. At all events, Brodie, as long ago as the first appearance of his well-known work, was fully aware of the value of fixation of joints by splints to insure their quiet. He seems, too, to have used traction, but only to overcome deformity. But the earliest record with which I am acquainted of the use of traction definitely for the cure of joint troubles is in the *Medical Examiner* of January 19, 1839. Dr. Harris, of Philadelphia, there reports certain cases of hip-disease treated by Physick's splint, followed by paste-board splints, and another treated by Gibson's Hagedorn's splint. Later, Dr. Alden March, of Albany ("On Coxalgia, or Hip-Disease," Trans. Am. Med. Ass., 1853), developed the use of traction in hip-disease, basing his treatment partly upon certain pathological investigations, but mainly upon the clinical observation of the relief afforded by such traction. Then followed, within the next few years, a rapid elaboration of the idea and a substitution of traction by means of portable apparatus for traction made while the patient was in bed.

The only safe basis upon which a plan of treatment can rest is that of clinical experience. This particular plan was gaining strength through the facts ob-

\* Read before the Surgical Section of the New York Academy of Medicine.



served as to the relief of pain, the diminution of deformity, and the probable abbreviation of the duration of the disease by its use, when it unfortunately became involved in a dispute with which it had no necessary connection: the dispute, namely, as to the etiology of this whole class of diseases. Whether this entanglement was the result of the coincident discussion of the two subjects, or whether it was due to the illogical zeal of those who believed that if the new treatment was right then the old theory of causation was wrong, I do not pretend to say. But at all events the controversy was regrettable since it made what should have rested upon an experimental ground alone, contingent upon the settlement of an etiological and pathological question. Thus, a subject of great interest and importance was made a hindrance to the proper consideration by one yet more important.

It is in no way the object of this paper to attempt any discussion of the relative value of struma and traumatism as factors in the causation of joint diseases. But as an indication of the futility of endeavoring to attack or defend the mechanical plan of treatment upon any etiological theory, it may be worth while to quote some of the definitions of the word *scrofula*.

Mr. Savory, in the beginning of the article upon *scrofula* in "Holmes's Surgery" (Vol. I.), says:

"*Scrofula* is, in one respect at least, an unfortunate word, for it is not clearly defined. On the contrary, very different significations are attached to it. It has certainly become a vague term, so that wherever met with it is necessary to refer to the context to obtain an idea of the sense in which it is employed. For example, by some it is applied to a certain state of constitution, and by others to the disease which results from it. Again, it is often applied to all the diseases which, arising in a certain state of the constitution, possess some general features in common; while it is sometimes limited to the absolute deposit of tubercle, being simply synonymous with the more modern phrase *tuberculosis*. Finally, the confusion reaches its climax by the introduction of the adjective *scrofulous*, which is, and perhaps ought to be, if used at all, employed in the same sense as the substantive, but it is applied more frequently, at least in conversation, as a less definite term to doubtful cases, when the features are obscure and the diagnosis uncertain.

"It is necessary to state, then, that in these pages by the term *scrofula* is understood a certain disease or defect of the constitution in which there is a tendency to produce and deposit a substance called tubercle in various tissues and organs. Tubercle may therefore be said to be the essential element of *scrofula*." A little later tubercle is described so as to include both the milary tubercle and the cheesy tubercle. Mr. Savory certainly does not exaggerate the confusion regarding the matter. Writers that were of the greatest authority when some of those present were students, Samuel Cooper and Abernethy, for instance, generally avoid a definition. Cooper, in his "First Lines," speaks simply of local manifestations; nor in his "Dictionary" does he venture upon a definition, but while describing the local expressions of the disorder, combats the idea that these are the primary disturbances, and holds to an antecedent cachexia. Mr. Abernethy ("Lectures") says in his peculiar abrupt and practical way:

"Now the glands are peculiarly liable to be disordered in a bad state of health, and we call it *scrofula*; that is, if the disordered state continue for a

long time. To say that the absorbent glands are not subject to *scrofula* would be absurd. We know that they are; there is every symptom of *scrofula*; there is an indolent tumefaction, succeeded by a more active degree of inflammation, followed by a secretion of a curdy kind of matter, called *scrofulous* matter. I am very adverse to calling all intractable diseases cancerous, or all indolent diseases *scrofulous*. There are many indolent diseases of the absorbent glands that are not *scrofulous*," and more to the same effect. The matter was certainly not by him clothed with any unnecessary prolixity.

But of late years the attempt has been made to establish the real nature of *scrofula*, and most writers experience a difficulty similar to Mr. Savory's in framing a definition, although they agree in many points upon the essential peculiarities. One insists upon inveteracy and the tendency to cheesy degeneration—another upon the non-vascularity of the products, etc. One of the writers, Birch-Hirschfeld ("Ziemschen's Cyclopædia"—Am. Trans., Vol. XVI. p. 761), after a preliminary discussion of about twenty pages, says:

"Having premised these general remarks, we may try to give a short definition of *scrofulosis*. Leaning on previous definitions, especially those furnished by Virchow and Billroth, we may designate *scrofulosis* as a constitutional anomaly which shows itself by changes partly of an inflammatory, partly of a hyperplastic nature, excited in the tissues by a comparatively slight noxious influence, changes which are endowed with insufficient recuperative power, and are therefore prone to lapse into regressive metamorphosis and, following thereupon, into local *tuberculosis*."

In the essentials of this definition, Rindfleisch, in his article upon *tuberculosis* in the same work (Vol. V.), concurs.

So Hueter ("Allgemeine Chirurgie," p. 731) recurs to the necessity of every writer defining what he means by *scrofula*. He adopts nearly the definition of Billroth and gives: "*Scrofulosis* is characterized by an increased inflammatory irritability of the body and by a tendency of existing inflammations to extension both as to space and to time." But with Hueter an assumed dilatation of the lymphatic vessels and a consequent ready ingress of monads plays an important rôle.

In making these quotations I have not sought to multiply them, but have taken simply those in works within reach from my writing-table. One more quotation shall be the last. It is from Flint's "Practice" in a brief article on *scrofula*. After giving a list of disorders "considered as local expressions of this diathesis, or, at least, as deriving from it important modifications," the author says: "That these affections involve a morbid constitutional state, either congenital or acquired, is undoubtedly true; but that they originate in a special cachexia is by no means certain. Even in children who have a *scrofulous* affection of the glands, the concurrence may be accidental. It is certain that the various affections just named are often observed in cases in which the glands are not affected; and *per contra*, the glands are often the seat of *scrofula* without the coexistence of any of the other so-called *scrofulous* affections."

These quotations have been adduced with no purpose to establish a theory of *scrofula* or of its effect in joint diseases, but simply to show that if the mechanical treatment of these diseases is to stand or fall with any such theory, we have yet to wait a long time for the decision.



Still further is it regrettable that the question of treatment and the question of etiology should have thus become involved, since the fervor of controversy has driven many to take up positions which I suspect they do not soberly purpose to defend. Much of the acrimony of the discussion is doubtless due to mutual misapprehension. The issue is mainly one of terms. For, while one party claims that these peculiar inveterate joint diseases arise from struma, and the other party is equally sure that it must have arisen from an injury, the one means that whatever injury may have been received, such a white swelling cannot be developed without a previously existing scrofulous diathesis; and the other, that whatever the diathetic taint, the local disease is excited by an injury received at that point. In a very considerable proportion of cases the evidence of the existence of both the diathesis and the traumatism is conclusive. In other cases again, the history of struma is plain, and that of injury obscure; and on the other hand, cases may be traced to a distinct injury while but uncertain symptoms of a vulnerable diathesis exist. These cases are seized upon by the disputants, each emphasizing those that impress him, and ignoring those which are convincing to his antagonist. And yet he would be a bigoted diathesist who held that an injured joint was no more susceptible to inflammation than an uninjured one, and he would be a hardy traumatist indeed, who should deny the influence upon a synovitis of the constitutional condition of the patient.

But in detail the believer in struma enlarges his definition of that word and cross-examines the patient as to his personal and ancestral health with a minuteness that would lead the strongest and soundest to confess "there is no health in us;" and the traumatist carries his point so far that a hydrops articuli or a synovitis following—say scarlatina—is attributed to an assumed sprain received in turning in bed. The debate might be prolonged as indefinitely as that famous one in the colored debating society on the question, "Which is the mother of a chicken, the hen that laid the egg, or the hen that hatched it?" It would indeed not be of particular interest in this connection were it not for the tendency to forget that a disease may be at once scrofulous and traumatic, and that the exclusive adoption of one or of the other side of the controversy is likely to lead to the abuse or neglect of mechanical treatment.

The abuses that arise from belief in the exclusively diathetic origin of the disease, are the reliance solely upon anti-diathetic treatment, and the neglect of several evident surgical needs. Thus pain is allowed in many cases to continue which could be relieved by the proper use of traction, and distortions are allowed gradually to occur, which likewise could have been prevented. These two claims of the mechanical treatment should insure its use, whatever views regarding the diathesis a practitioner may hold, unless he is prepared to show, or is at least convinced, that mechanical treatment delays recovery, or in some other way is sufficiently disadvantageous to offset its evident benefits.

On the other hand, the too eager traumatist may fall into the error of trusting as fully and exclusively to his apparatus as he would to his splints in the treatment of a fracture, and of utterly neglecting the constitutional condition of the patient. The psychical effect upon the patient or his friends (the ocular evidence, namely, that "something is being done") is such that there is often a tendency to construct apparatus for cases that would be quite as well without it. The commoner disadvantages, however, are: 1. The

general practitioner, even if he be desirous of trying new plans, has ordinarily little knowledge of mechanical appliances, and little time to study or adapt them, and consequently relies mainly upon the instrument-maker, who is ignorant, at least, of the whole surgical aspect of the question.

2. When a machine has thus been provided, both attendant and patient are likely to trust to it as if it had some occult power, and are confident that "the best is being done," when real and serious neglect exist.

3. This neglect, combined with the extravagant expectations entertained by the patient, and perhaps encouraged by the attendant, pretty certainly leads to disappointment; and,

4. By a natural revulsion the whole plan of treatment is abandoned, and a fair amount of advantage that might have been obtained is thrown away.

It is always a thankless, often a hazardous task to endeavor to estimate the relative or actual value of contending theories. Yet, generally, as in this instance surely, the only safe ground is between the extremes. Both theories rest on facts; error comes in only when exclusive dogmas were built upon a part of the facts. Error always will come when the one safe plan of meeting as far as possible empirically all the indications is deserted. In regard to the diseases under consideration, this plan demands that a practitioner should be on the alert to detect any diathetic condition to be combated and, if possible, corrected. He will not be blind to syphilitic manifestations, nor to those of rheumatism or rickets. He should be as watchful for those of scrofula or any other form of cachexia. And according as he detects these, will he modify not only the constitutional treatment, but perhaps even the local surgical appliances. On the other hand, I must repeat, whatever the cachexy, he cannot be excused from seeking to relieve the local trouble by appropriate surgical dressings.

We gladly then pass to an attempt to estimate the general mechanical indications—in a wide sense—of the local treatment of diseases of joints, and in a general way to suggest some of the principles that should govern the choice of mechanism.

The local indication in all cases of the kind we are considering during the activity of the disease, is rest of the affected articulation. This fact is sufficiently well established by clinical experience and may be explained by reference to the physiological law that all use of a part of the body is attended with a flux of blood toward that part. Hence, motion of a joint brings blood to it, already hyperemic from disease, and the inflammation must be increased thereby.

Now, in some cases of synovitis the joint seems to gain sufficient rest if the patient simply keeps the bed or, at most, has the limb supported in such a way as shall relieve it from motion, strain, or tension. These are cases which lead to doubt and dispute whether they are cases of simple synovitis, or whether they are essentially the same as those others that subsequently become synovitis fungosa or white swelling. And herein lies the chief objection to treatment, at least for any considerable time, by confinement to bed, that namely in cases where the constitution is such as to make the occurrence of fungous synovitis probable, the disadvantage in want of air and sunlight, and the disturbance of function due to confinement, will probably fully balance the good obtained by the rest. In cases of fair constitution, where simple rest is sufficient to meet the symptoms of the arthropathy the general condition may be kept up by the means of massage, not applied to the affected joint, but to the person in general. The circulation,



condition of the skin, and, as a consequence, the general nutrition, are thus improved.

Again, cases occur where although the patient, a child for example, is kept in bed, he is only nominally at rest. He is incessantly active, and the bed is only a more restricted field of operation. I can recall a case of hip-disease that was distinctly worse—though under active treatment and constant care—after Saturday holidays, because the other children played in the sick-room, and the invalid endeavored, to the best of his ability, to do his share of the romping. Eventually this little fellow was sent away from home, to gain a rest he could not otherwise obtain.

But if the inflammatory action be quite acute, an enforced rest of the joint beyond that obtained by simple recumbency will probably be necessary. This may be secured by the use of almost any kind of simple splint properly adapted to the contour of the joint and trunk or limbs above and below. The particular material selected is often a matter of indifference, although one may chance to suit an individual case better than another, or may better accord with the tastes of the attendant. Among the best are leather, and the starch, glue, or plaster-of-Paris bandages. They should all be so arranged as to admit of ready removal for the inspection of the joint, or for other purposes. This involved no real loss of fixation; for although the immovable dressing seems at first to be more secure, it very soon loses its exact conformity to the surface of the limb, and unless it be frequently changed, it speedily ceases to be of more value than a simple padded splint would be.

If, however, there be much muscular spasm, appliances of the sort described will rarely be sufficient. Indeed the advance of the disease to a point where the muscular spasms become a prominent symptom is often, I am sure, due to the real, though not evident, inefficiency of the retentive dressing. When the muscular spasm is urgent, fixation cannot be secured, save by the use of a force as constantly acting as that which is to be overcome, and the agent best adapted to this purpose is *traction*, or, as it is generally called, *extension*. The word *extension* is objectionable because of its obscurity, since it is used as the opposite of flexion; and in the treatment of fractures the agent traction is called by the name of the object sought, namely, the *extension* of the broken bone to its normal length, and, probably as a result, the expression *extension* in this connection involves a false supposition which I shall mention later. Under traction I mean to include all methods of applying it, whether by simple weight and pulley, elastics, or by the various forms of portable apparatus that are applied to the person, and are so arranged as to make traction directly or indirectly upon the diseased articulation.

*Traction* may be used: 1st. As a means of relief when the disease is active and acute; 2d. To remove or correct deformities resulting from the disease after the latter as such has ceased; or, 3d. It may be used for both purposes during the activity of the disease, or to prevent anticipated distortion. The second use of traction is purely mechanical, like the application to the treatment of fractures, and its particular methods and modification must vary with the mechanical obstacles to be overcome. Now I am not aware that any one has ever claimed that traction in and of itself exerted any curative influence upon a synovitis or upon osteitis or caries of the joint-ends, although the excess to which the treatment has been carried by some injudicious practitioners would suggest that they acted upon a theory that the benefit

could be calculated by a mathematical formula, and that it was directly proportional to the tractile force employed. Its most intelligent and ardent advocates employ and advise it simply because clinically it is the best method, all things considered, of securing true rest of a diseased articulation. In order that it should be so employed as to deserve this praise a number of things are to be considered, for traction misapplied certainly is of no use, and often is downright distressing, and in many ways harmful.

The crucial test as to the propriety of using traction is, does it or does it not give relief—I am now speaking of its use while the disease is in progress. If it does, it is certainly indicated, if not, it is of doubtful utility; if it occasions distress, it is certainly contraindicated. But before deciding that it does not give relief, we must answer at least the following questions:

1st. *Has the traction been long enough continued?*

In order that it may do any real good, the traction must be long continued, although the relief of pain may be immediate and continue as long as the traction is employed, yet as the disease is very inveterate and slow in changes, any plan of treatment that aims to be successful must be persisted in for a long time.

2d. *Is the amount of traction proper?*

It sometimes happens that the traction is insufficient and but partially overcomes the muscular spasm. In that case addition to it will give the desired relief. But it is quite as likely to happen that the traction is unnecessarily great. The relief gained is not, as was formerly imagined by some, from the separation of diseased surfaces. This separation is scarcely possible under any amount of force likely to be employed by a surgeon; and again, it is very probable that whatever separation could be accomplished has already resulted from the effusion within the joint. The relief is gained simply from the prevention of muscular contractions which violently grind together the inflamed and perhaps eroded surfaces. The aim of the surgeon should then be, not to use all the traction that can be tolerated, but to use the smallest amount that will ensure the rest of the articulation.

3d. *Is the traction made in the right direction?*

It should always be borne in mind that the position in which the limb, a joint of which is diseased, is found, is not the result of accident. In the first place the muscular spasms, resulting from the joint irritation, change the position of the joint from the normal one. But the irritation affects not a single set of muscles alone, but several, and their contraction varies according to the relative strength of the muscles and the degree of irritation. The limb cannot follow the dictates of each group, and the position assumed would express the resultant of their forces were it not that there is added a certain amount of instinctive or semi-voluntary muscular action, having for its object the diminution of or abolition of motion in the joint. The position of the joint then—excepting cases where adhesion exists, or where some muscles may have become contracted—represents the equilibrium of the muscles to prevent attrition. The position of fixation is probably not painless, and is not maintained without serious effort, but it is generally the attitude of minimum suffering. This position of equilibrium should not be rudely disturbed, for an attempt to suddenly change it causes a spasm of those muscles at the expense of which the change is effected, and this spasm will cause pain, possibly trivial but most probably agonizing. If in such a case then we desire to make traction, we should first see that the tractile force is applied in such a direction, or in such direc-

tions, as shall exactly supply the place of the muscular contractions, if they have been sufficient to keep the patient free from acute pain. Then, when the relief of the pain allows the muscles to relax, the direction of the traction may be gradually changed from that first assumed to that calculated to bring the limb into the desired position. To illustrate: A diseased hip with strong contraction of the flexors of the thigh will be rather irritated than relieved by traction (by weight and pulley) horizontally when no allowance is made for the angle of flexion. The insertions of the contracted muscles become a fulcrum, the traction will move the thigh in an angular direction, like a lever, and the effect will be to crowd the head of the femur into the acetabulum instead of preventing such crowding. So in a contracted knee, and generally.

In a similar way traction may defeat itself through the tension of muscles and become a real compression of the diseased joint: thus, when the synovial sac of the knee is much distended with liquid, traction from below the knee may act simply to compress the subpatellar enlargement beneath the rectus and the vasti, or in the same way to crowd eroded surfaces together. In such a case these muscles must be relaxed by position or by strapping them *toward* the joint.

4th. *Is the traction acting on the proper joint?*

Where, as is generally the case, the joint diseased is in a limb, any traction applied to the extremity of that limb will be distributed over the various joints. Some of them would be thus subjected to unnecessary or injurious traction. The method of applying the force should therefore be such that all joints between the point of application and the joint to be acted upon should be efficiently protected against the traction. The particular means of protection must vary with the kind of traction employed.

The length of this paper forbids my entering upon any discussion of the general principles of portable traction instruments. It may facilitate discussion, if I recapitulate the points I have endeavored to establish.

1st. The origin of the mechanical treatment of joint diseases was empirical.

2d. That the involving of the discussion of this plan of treatment with a question of etiology is unfortunate and unwarrantable, since the etiological dispute is largely one of terms, and is yet too far from settlement to be allowed to dictate what shall be the surgical treatment.

3d. That too eager espousal of the one or the other side of the controversy may lead to abuses.

4th. That in any event the merits of a local mechanical treatment are sufficient to demand its employment.

5th. After speaking of some simple means of retention, I have enumerated some of the essentials of the proper use of traction.

ST. LUKE'S HOSPITAL.—Dr. J. L. Little has been appointed Consulting Surgeon, and Dr. James R. Leaming, Special Consulting Physician for diseases of the heart and lungs.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.—This Society celebrated its sixtieth anniversary December 20, 1877. Addresses were delivered by Drs. J. M. Toner and A. Y. P. Garnett.

DR. ANTON FLEISCHER, Professor of Chemistry in the University of Klausenburg, committed suicide recently. He was driven to the fatal act by the unbearable suffering caused by an incurable disease.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

##### QUININE IN THE TREATMENT OF INTERCOSTAL NEURALGIA—DIAGNOSIS BY EXCLUSION AND BY DIRECT EVIDENCE.

A FEMALE patient complained of pain in the chest. It had continued four weeks, and at times had been rather severe—sufficiently so to interfere with the act of respiration. The pain, as it commonly is in this disease, was in the left side, and the patient was somewhat anæmic. Diagnosis of intercostal neuralgia was reached *first*, by exclusion; and *second*, by direct evidence, consisting of points of tenderness in the course of intercostal nerves. These points of tenderness on pressure were three: 1, in the intercostal spaces near the sternum; 2, in the infra-axillary and axillary regions; and 3, close to the spinous processes. The explanation of the tenderness at these points is that in these three situations the intercostal nerves send out cutaneous branches. The treatment recommended in this case was to develop slight cinchonism and maintain it for *two weeks*. It was regarded necessary to thus prolong the cinchonism in order to determine whether quinine was to prove efficacious in the treatment of any of these cases. Many cases did not yield until nearly at the end of two weeks, but if slight cinchonism was kept up for that length of time and the neuralgia was not benefited, it was quite evident that some other measure would be required.

##### SUPPOSED CASE OF PROGRESSIVE PERNICIOUS ANÆMIA—CANCER OF THE STOMACH—INTERESTING CASE FROM TWO POINTS OF VIEW.

A male patient, who dated his sickness from the summer of 1876, was admitted to the hospital in July, 1877. Physical examination, at the time of admission and subsequently, was negative with reference to all his internal organs. His peculiar pale countenance suggested examination of the blood, when it was found that there was evident diminution of the normal proportion of red globules, but the white globules were apparently undisturbed; there was no pigment in the blood. There was loss of digestion; the patient vomited his food occasionally, and occasionally suffered from diarrhœa. The anæmia had been progressive for a year or more when admitted to the hospital, and yet no satisfactory explanation of the condition could be found. There was no tumor, or pain, or vomiting of blood, or other symptom which suggested the existence of cancer of the stomach, and yet at autopsy cancer of that organ was found.

The case was interesting from two points of view: 1. As bearing upon the existence of the disease which has received the name of progressive pernicious anæmia; and 2, as illustrating the sparsity of symptoms which may attend the development and progress of cancer of the stomach.

##### CARDIAC DILATATION—RAPID DEVELOPMENT OF SERIOUS CARDIAC SYMPTOMS FROM APPARENT HEALTH.

A middle-aged man dated the beginning of his present condition at three months ago, when, after what he regarded as a trifling exposure at Creedmoor, he was seized with a chill, which was followed by a fever and pain in the left side. He was never sick



previous to that date. His sickness at that time kept him in bed for a few weeks, and he then was able to get about some, but unable to perform any labor which called for much physical exertion. During his sickness he had some cough and expectoration, and occasionally spat up *small masses of dark-colored blood*. He had lost about fifty pounds of flesh. He was unable to walk very much without getting tired, and was unable to go upstairs without sitting or lying down several times to get relief from the shortness of breath. During his acute sickness there was simple swelling of the feet without redness or pain. He was a marksman, and previous to the date assigned as the beginning of his sickness had been able to hold his rifle with perfect steadiness; that is, it received no noticeable motion from the body. He had been in the habit of drinking lager-beer for many years.

Physical examination revealed the existence of an increased area of cardiac impulse, epigastric pulsation, pulsation in the carotid, very indistinct apex beat, and situated to the left of the nipple. The case was regarded as one of probable dilatation of both sides of the heart, but especially of the left ventricle, and without compensating hypertrophy.

#### TENDERNESS UPON PRESSURE ON DIFFERENT PARTS OF THE STERNUM AS A SYMPTOM OF CONSTITUTIONAL SYPHILIS.

The case was one in which the presence of syphilis was suspected, and yet no history of the primary lesion could be obtained, nor could the evidence of secondary manifestations be made clear. Tenderness upon pressure over different parts of the sternum, especially the epigastric portion, was regarded as exceedingly strong evidence in favor of the presence of constitutional syphilis, for it was said there is nothing except that disease which produces such tenderness.

#### DOUBLE PNEUMONIA—A CASE SPECIALLY INTERESTING WITH REFERENCE TO TREATMENT.

A male patient, *æt.* 50 years, while in a state of partial intoxication, fell into the river, where he remained five or six minutes before being rescued. When brought into the hospital he was intensely cold. He was admitted at 2 A.M. on the 11th of the month. Although not actively delirious, his mind was wandering, there was slight fever, the pulse was 105, and his urine normal.

Soon after, his temperature was found to be  $103\frac{1}{2}^{\circ}$  F., and grs. xv. of quinia (sulphate) were administered. Evidence of pneumonia in both lungs was present.

Dec. 12th.—Temperature in the morning,  $104^{\circ}$ ; in the evening,  $103^{\circ}$  F. Pulse, 120. Respiration, 28 in the morning; and at 3 P.M., P. 132 and R., 32. Patient delirious, tongue white and moist; pupils contracted. On account of the high temperature, the quinine was increased to thirty-grain doses, and  $\frac{5}{8}$  ss. doses of whiskey were given every three hours. To-day symptoms of pulmonary oedema developed, and immediately dry cups were applied, and also wet cups, the latter removing  $\frac{3}{4}$  x. of blood. One hundred dry cups were applied within a few hours. The patient also received twenty drops of tr. digitalis and half an ounce of whiskey hypodermically. These measures of treatment cleared up the symptoms of oedema of the lungs. Evidence of oedema of the lungs returned, and dry cups were again applied. In the progress of the case over 200 dry cups were employed, and  $\frac{3}{4}$  x. of blood were removed by wet cups. Besides, whiskey, digitalis, carbonate of ammonia, were freely administered hypodermically and other-

wise, and a liberal supply of nutritious food was given.

On the 13th there was marked improvement in all the symptoms, both local and general.

#### REDUCTION OF TEMPERATURE BY MEANS OF THE SPONGE-BATH—INTERESTING CASE WITH REFERENCE TO DIAGNOSIS AND TREATMENT.

A female patient had a fever, yet no local cause could be found to account for it, and it lacked the characteristics of any of the essential fevers. It was wanting in many of the characteristics of typhoid fever. There was no diarrhoea, no tympanitis, no eruption, and only slight sensitiveness upon pressure in the right iliac region. There was neither delirium nor appearance of stupor. If the case was not one of typhoid fever, what was it? It was believed by the visiting physician to be probably true that there are fevers which are really fevers of different species, but which at present are necessarily classed under the head of typhoid fever.

There was considerable rise in temperature, and yet the skin was quite cool, and the pulse scarcely accelerated.

With reference to the elevation of temperature and the means employed for its reduction, the following note was made.

On the fifteenth day of the fever, the patient was placed under treatment by means of the sponge-bath, and the house-physician, Dr. Chadwick, proceeded in the following manner. The patient's clothing was removed entirely; then with *tepid* water the whole of the anterior surface of the body was sponged, the patient was then turned upon the face and the entire posterior surface of the body sponged in the same manner; the sponging was continued *fifteen* minutes each time.

Dec. 7th, 3.30 P.M.—Temperature,  $103\frac{1}{2}^{\circ}$  F. The sponge-bath was used, and at 3.55 the temperature was  $101\frac{1}{2}^{\circ}$  F.

At 5.30 P.M. the temperature had reached  $104^{\circ}$  F. The bath was repeated, and at 5.55 the temperature was  $103^{\circ}$  F.

At 6.30, without another bath, the temperature was  $102^{\circ}$  F.; at 7.30,  $101\frac{1}{2}^{\circ}$ ; at 9,  $101^{\circ}$ , and at 12 P.M.,  $101^{\circ}$  F.

The effect of the bath apparently continued for some time.

Dec. 8th. 3 A.M.; temperature  $103^{\circ}$ , sponge-bath, and at the end of twenty-five minutes the temperature was reduced to  $101\frac{1}{2}^{\circ}$  F. At 7 A.M. the temperature was  $98^{\circ}$ , from which point it arose until at 3 P.M. it had reached  $103^{\circ}$  F. The sponge-bath was then used, and at 4 P.M. the temperature was  $103\frac{1}{2}^{\circ}$  F. The bath was renewed, and at 4.30 P.M. the temperature was  $102^{\circ}$ ; at 5 P.M.  $102\frac{1}{2}^{\circ}$ ; at 6 P.M.  $102\frac{1}{2}^{\circ}$ ; at 10 P.M.,  $102\frac{1}{2}^{\circ}$  F.

Dec. 9th, at 2 A.M. the temperature was  $103\frac{1}{2}^{\circ}$  F.; the sponge-bath was used, and at 2.30 A.M., the temperature was  $102^{\circ}$  F. At 7 A.M., the temperature was  $102\frac{1}{2}^{\circ}$ ; at 8,  $102\frac{1}{2}^{\circ}$ ; at 9,  $102\frac{1}{2}^{\circ}$ ; respiration 30, and pulse 80. At 10 A.M. the temperature was  $101^{\circ}$ ; at 12 M.  $104^{\circ}$  F. The bath was then repeated, and the temperature fell to  $101\frac{1}{2}^{\circ}$  F.

At 1 P.M., the temperature was  $101\frac{1}{2}^{\circ}$ ; at 4 P.M.,  $101\frac{1}{2}^{\circ}$ ; and at 6 P.M.,  $102\frac{1}{2}^{\circ}$ .

Dec 10th; at 1 A.M., the temperature was  $102^{\circ}$ ; and at 11 A.M.,  $101\frac{1}{2}^{\circ}$  F. At 2 P.M., the temperature was  $103\frac{1}{2}^{\circ}$ . The bath was resorted to, and the temperature soon after was found to be  $104^{\circ}$  F. The bath was repeated, and at 3 P.M. the temperature was  $103\frac{1}{2}^{\circ}$  F.; at 4 P.M.,  $102^{\circ}$ ; and at 5 P.M.,  $103^{\circ}$  F. The bath was

repeated and the temperature soon fell to 101° F. At 12 P.M., the temperature was 100½° F.

Dec. 12th; at 2 A.M., the temperature was 100½°; at 8 A.M., 100½°; at 10 A.M., 100½°; and at 6 P.M., 103° F.; pulse 80, and respiration 20. The bath was again employed. At 10 P.M., the temperature was 102° F., and at 12 P.M., 101° F.

At the time this note was made, Dec. 13th, 10 A.M., the temperature was 100° F., and the outlook of the case was good.

#### THE RELATION OF CARDIAC ENLARGEMENT TO EFFECTS PRODUCED UPON RESPIRATION IN CHRONIC HEART DISEASE—ILLUSTRATIVE CASES.

Two cases of chronic heart disease were seen which were interesting by way of contrast. In both cases there was physical evidence of valvular lesion; both patients had a musical, aortic, regurgitant murmur. There were no other valvular lesions in either case. One patient, however, suffered in a marked degree from shortness of breath on slight physical exertion, and in his case there was an increased area of cardiac dulness.

The other patient had little or no enlargement of the heart, and did not suffer specially from symptoms referable to the chest. The man was anæmic, but he did not suffer from labored respiration. The cases illustrated the fact that it is the enlargement of the heart, coincident with valvular lesion, that stands in direct relation to symptoms of cardiac disease, especially with reference to the effect produced upon respiration.

## Progress of Medical Science.

**DILATATION OF THE URETHRA BY THE URINE ITSELF.**—Towards the end of the last century Brunninghausen recommended this method of dilatation, which he claimed to be more easy and simple than that by bougies. To practise it the patient must simply compress lightly the urethra behind the glans with his fingers whenever he wishes to urinate. The pressure must be such that the urine can only escape slowly and after having remained some time in the canal; as a necessary result the canal will be more or less dilated through its entire length, in the constricted as well as in the healthy portion. If this be repeated every time the urine is voided, the same effects will gradually be produced as if bougies had been used, while at the same time the inconveniences of the latter are avoided. M. Bérenger-Férard has employed this method in his practice, and the following are the conclusions he has arrived at with regard to it:

1. Dilatation of the urethra by the urine, repeated at each urination for a long time after a prolonged attack of gonorrhœa, seems to prevent the formation of strictures.

2. In cases of moderate strictures it seems to have restored the normal calibre of the canal, or at least to have restored the calibre sufficiently to render micturition easy.

3. After the operation of urethrotomy it will perhaps prove useful to prevent, or at least to retard notably, the return of the constriction.

4. In cases of varicose dilatations at the neck of the bladder, or in the membranous portion of the urethra, it appears calculated to be serviceable.

5. It seems to prove useful also in the cases of partial or total hypertrophy of the prostate in old men.

In such patients the first drops of urine, which are emitted with so much difficulty and slowness, will serve effectually to fill the canal if the meatus be kept closed. When the ordinary calibre of the canal is once re-established in this way, the remaining contents of the bladder can be evacuated easily. The method has this great advantage, that it does away with the difficulty of emission after the first drops have escaped from the bladder; when it is not employed, the difficulty of emission persists during the entire act: the micturition, moreover, becomes intermittent, and the bladder is incompletely emptied, as a result of which, frequent desire to urinate is soon experienced.—*Lyon Medical*, October 7, 1877.

**IS CASEOUS PNEUMONIA TUBERCULOUS? —** Prof Charcot insists that the fundamental and exclusive basis of all caseous masses, large or small, in the lungs is tubercle. The ordinary microscopic gray granulation consists of an aggregation of elementary tubercles, each of which consists of a central giant-cell, surrounded by a zone of embryonic cells that are readily colored by reagents. When degeneration sets in, the central giant-cell is the first to undergo the caseous transformation; it is no longer tinged by carmine. In agglomerate masses of tubercle, the central follicles are the first to become caseous. In caseous pneumonia, the diseased mass is really made up of tubercles, but they are lost sight of in consequence of their enormous numbers. When a section from a small caseous nodule is examined under the microscope with a low power, the lobular bronchus and arteriole are found imbedded in caseous islets. Otherwise, with this power, the pulmonary tissue appears healthy. When higher powers are used, the central bronchus and arteriole are seen to be more or less obliterated, and their walls to be more or less altered. They are surrounded by a yellowish, uniform mass, which does not color with carmine. In this mass caustic soda reveals elastic fibres, which outline the alveoli. The zone around it colors red, and is composed of embryonic cells. Here and there at the periphery of this zone are giant-cells arranged like detached forts. Each of these giant-cells is surrounded by a small embryonic zonule; it seems to be the centre of formation of an elementary follicle, just as it would be a centre of crystallization in mineralogy. In a word, each islet is merely an agglomeration of elementary tubercles, which increases peripherally by the formation and annexation of elementary follicles, each with its central giant-cell. The larger caseous masses, whether they be as large as a nut or fill an entire lobe, are formed in the same way; the zone of embryonic cells and giant-cells will always be found at the periphery.

A careful examination of the pulmonary parenchyma around the nodules will, according to Charcot, demonstrate still more conclusively the error of Virchow and his followers, in regarding caseous pneumonia as simply a degenerated pneumonia. The neighboring alveoli are filled with proliferated epithelium, or with fibrinous, purulent, or mucous exudations; these pathological products, however, never undergo real caseous degeneration. Here, as elsewhere, the epithelial cells become granular and fatty, and form granular bodies, etc.

Prof. Charcot consequently believes that we must return to the theory of Laënnec; caseous or pneumonic phthisis is by nature tubercular. It is constituted by agglomerations, often very voluminous, of tubercles.—*La Tribune Médicale*, Sept. 23, 1877.

**PHYSIOLOGICAL ACTION OF PAO-PEREIRA** (*geissospermum lœve*, Baillon).—The following is a resumé of a



communication made to the *Académie des Sciences* by MM. Bochefontaine and de Freitas, on the physiological action of the pao-perreira. In their experiments they employed the infusion and the alcoholic extract of the powdered bark, and also geissospermine (pereirine) dissolved in water or alcohol. The effects were studied on frogs, Guinea-pigs, and dogs, the drug being administered by hypodermic injection.

1. Geissospermine has no, or at least only a very feeble, local irritating action, and hence is suitable for hypodermic use.

2. It is a toxic substance. Two milligrammes (gr.  $\frac{1}{44}$ ) prove fatal to a frog, when introduced under its skin; one-half milligramme (gr.  $\frac{1}{155}$ ) is enough to cause paralysis. Administered in the same way, one centigramme (gr.  $\frac{1}{6}$ ) proves fatal to an adult Guinea-pig. Two grains are sufficient to paralyze a small dog so as to render all spontaneous movements impossible.

3. In many of the experiments, geissospermine diminished the frequency of the heart-beats. This fact has also been noticed clinically. The arterial pressure in the carotids was notably diminished.

4. The respiratory movements become less frequent.

5. The voluntary movements cease before the reflex movements. The drug consequently seems to act on the brain.

6. Finally, the reflex movements are gradually abolished. The drug, consequently, acts on the spinal cord and the medulla. In a frog from which the brain had been removed, but in which the cord still retained its reflex power, this power was abolished by geissospermine.

7. The sensitive nerves appear to preserve their functions as long as the motor nerves. When the main artery of one hind leg of a frog is ligated, and the geissospermine is injected into one of the front legs of the animal, the limb whose nutrient artery has been tied is not affected by the poison. Nevertheless the reflex movements excited by irritation of the sensitive nerves are exactly the same in both hind legs. The excitability of the nerves is not lost until the animal has been torpid and inert for a considerable time.

8. Muscular contractility is not affected by the poison, for it persists even after the death of the animal.

To conclude, the active principle of geissosperminum læve is a paralyzing poison, which abolishes the physiological functions of the central, gray, nervous substance, and particularly of the gray substance of the spinal cord.—*Le Mouvement Médical*, Sept. 15, 1877.

**DIAPYCNOSIS OF LEUCOCYTES IN MAN.**—In a short but very interesting memoir, Prof. Collin, of Val de Grace, gives the results of his studies on the migration of leucocytes in man. He shows that clinical observation and pathological anatomy confirm the researches of experimental physiology. It has long been known that when a fine, colored powder, carmine for instance, is injected into the vascular system of an animal, the leucocytes seize on the small red granules, envelop them with their protoplasm, and carry them along through the blood-vessels. They can readily be followed through the circulation, and it is easy to demonstrate their passage through the vascular walls, and their extravasation into the surrounding cellular tissue. In malarial poisoning and the melanæmia which results from it, pigmented depots are found in different tissues, particularly in those which are in most intimate contact with the blood,

such as the vascular walls. These depots are derived originally from the red blood-corpuscles, which are destroyed in the spleen. The white blood corpuscles, as has been proved by microscopical examination, take up the debris of the red globules, and escaping from the blood-current, form with it the pigmented collections in the vascular walls and in the different tissues. According to M. Collin, this migration of globules filled with pigmentary corpuscles is very active. In countries where malaria is rife, the yellowish, earthy tint which is due to general pigmentation of the tissues, and consecutive to a diapycnosis of white globules filled with pigmented granules, sometimes appears after only two or three attacks of fever.—*Le Progrès Médical*, Sept. 22, 1877.

**THE ETIOLOGY OF DIPHTHERIA.**—Dr. Thorne has observed and reported an extensive epidemic of diphtheria occurring at Great Coggeshall, in Essex. The outbreak commenced in November, 1875, and continued till the end of 1876. The disease was at first not recognized, the first seven deaths being registered as due to "croup." Dr. Thorne, however, satisfied himself that these early cases were diphtheria, showing amongst other things that the disease was from the start of an infectious character. No antecedent case could be heard of, and both Great Coggeshall and the surrounding district had been for some time remarkably free from those diseases liable to affect the throat, thus having more or less affinity with diphtheria. There were no diseases among the cows that might affect the milk supply, nor were there any known sanitary defects common to the houses first attacked. Dr. Thorne confidently expresses the opinion that the first case or cases had not been arrived at. Strong evidence is brought to show the infectious nature of the disease; in one series of cases the infection is traced through fifteen persons, starting from two children who were attending school. The whole place is remarkable for the dampness of its site. The effect of temperature and rainfall on the spread of the disease was very marked, and from the tables Dr. Thorne has prepared it is seen that the largest number of attacks occurred during the months of excessive rainfall and comparatively low temperature, whereas, with a rising thermometer and a diminished rainfall, the number of attacks became smaller. Owing to the bad sanitary arrangements throughout the entire place, observations on this point were unsatisfactory, but it was noticeable, nevertheless, that a very large proportion of the cases occurred in overcrowded and ill-ventilated houses. In two instances second attacks occurred, and in each the second attack was far worse than the first. In one of them the last attack was fatal.—*The Practitioner*, November.

**ADULTERATION OF BUTTER WITH FAT.**—Butter is frequently adulterated with other animal fats, such as suet, lard, margarine, etc. It is often difficult to discover this adulteration, because the chemical and physical properties of the doctored article differ very little from those of pure butter. Dr. Jaillard, of Algiers, employs microscopical examination in his analysis of butter, and finds it more reliable as well as more simple than the chemical examination. Pure butter appears under the microscope as round globules, varying in dimensions, while the other animal fats appear under the form of needle-like or branched crystals. When the butter has been adulterated with fats, these crystals will be found in more or less abundance.—*Journal de Méd.*, etc., August, 1877.

# THE MEDICAL RECORD:

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## THE PECUNIARY VALUE OF EXPERT TESTIMONY.

A DECISION has recently been rendered, before the Superior Court of Indiana, which is of the greatest interest to the medical profession not only of that State, but of the whole country. The question which was sought to be settled was, whether or no a physician has a right to receive compensation for testimony as an expert in a court of law. Until the case to which we shall refer was brought up for serious adjudication no one had any doubts on the subject, and that such doubts have been created will be as much a surprise to the majority of the profession as were the arguments upon which they were based.

On the 16th day of November, 1877, Dr. Thomas J. Dills, a practising physician of Fort Wayne, Indiana, was summoned by subpoena to testify as an expert in the case of the State against Robert Hamilton for Rape. After answering the usual questions as to qualifications, he was asked the following by counsel for the defense: "State whether or not, in cases of female menstruation and towards the end of the period, there is sometimes a retention of a portion of the menses." This the witness refused to answer, upon the ground that it called for his professional opinion as a matter of right and without compensation. He thereupon filed his objections and appealed to the court in behalf of the justice and equity of his claim. After due deliberation, Judge Borden ruled against the petition, and on further refusal he adjudged the witness in contempt and ordered his commitment to the county jail as a punishment therefor. A writ of *habeas corpus* was sued out before Judge Lowry, who, after a long and patient research in English common law, statutory enactments, etc., decided against the suit and remanded the witness to the custody of the sheriff. After this decision the witness returned to the stand, purged himself of contempt, but offered his testimony

under protest, thus reserving all his individual and professional rights before the law.

The case was in many respects a novel one, and, as we shall see by reference to the opinion of his Honor, Judge Lowry, was the occasion of some curious exceptions. The question to be decided by Judge Lowry was, as stated in his own words, briefly this:

"Has a person called as an expert—in this case a physician—having in all other respects as to attendance as a witness, at the instance of the defendant, and answering all preliminary questions in a trial in the criminal court for felony, when called upon for his opinion upon a question of skill pertaining to his profession, a right to refuse to answer until provision is made for his compensation, either by the defendant or the court; or is he in such case guilty of contempt and subject to imprisonment?"

In regard to the matter of special compensation, it is contended by his Honor that no provision therefor has been made in common law, and that even in criminal prosecutions there has been no distinction between witnesses testifying as to facts and those called as to questions of skill. So far, then, as the common law is concerned, the question would seem on general principles to be settled.

Examining into the subject still further, his Honor bolsters up his argument against extra compensation by a reference to statutory enactment. There is a constitutional provision in the laws of Indiana providing that

"\* No man's particular services shall be demanded without just compensation. No man's property shall be taken by law without just compensation; nor, except in case of the state, without such compensation first assessed and tendered."

While the fact of the existence of this law is of course admitted, its applicability is denied; that is to say, it is claimed that a man's opinion is not his special and individual property, and is therefore not comprehended in the term "particular services."

The manner in which this proposition is attempted to be proved by the judge is so ingenious, and carries with it so much of the air of subtlety, that we make from his charge the following quotation in point:

"When a witness is required simply to testify in a court of justice, it cannot be said in the sense of this provision that his property is to be taken. He is not to be deprived or divested of anything. If he have an opinion on the question in hand, it is not proposed to dislodge it or dispossess him of it and transfer it to the enjoyment and dominion of some one else. It is proposed simply that he shall give it expression. To do this it is necessary to set in motion the organs of speech. By their use he lays before the jury a statement of the laws appertaining to some department of nature, science, art, life or business not within the common and general observation and knowledge of mankind. This knowledge he has at some previous time acquired through the use of his senses, by the impressions made upon them from without, and by classifying, arranging, and comparing those impressions he has formed conclusions or opinions. He is now required to state what those opinions are; or it

\* The Bill of Rights, Art. 1, Sec. 21, Const. Ind.



may be he is simply to state what the views of others of acknowledged authority are as received and acknowledged by his profession, as he may have got those views from books or heard them from the platform. This is obviously, in either case, a 'service' that he is required to render. It is not even some original combination of forces, or some new and grand invention of his own, that he is required to divulge. It is not an hereditament, corporeal or incorporeal—nor an easement connected therewith—nor a corporeal or incorporeal chattel."

Another reason for considering the services in the case in question of no pecuniary value is that they were to be rendered in a criminal case. (*Israel vs. State*, 8 Ind.) On this point the Judge remarks:

"We do not propose to go into a discussion with a view to a definition of 'particular services;' but we are prepared to say that the services of witnesses in criminal cases are not particular, but are of the class of general services which every man in the community is bound to render for the general as well as his own individual good. It is as much the duty and interest of every citizen to aid in prosecuting crime as it is to aid in subduing any domestic or foreign enemy; and it is equally the interest and duty of every citizen to aid in furnishing to all, high and low, rich and poor, every facility for a fair and impartial trial, when accused, for none is exempt from liability to accusation and trial."

Again, another reason which he offers why professional opinions in court should not be considered of extraordinary value, is simply that "persons in every pursuit in life are subject to be called as experts, to speak in court on questions appertaining to the particular domain of life in which they are engaged."

In further support of this particular view, his Honor quotes what he considers to be a case in point (*Gaston vs. Board of Commissioners Marion Co.*, 3 Ind., 407). In that instance Dr. Gaston was directed by the coroner to make a post-mortem examination to determine the cause of death. He complied, and filed a claim accordingly. In that case the Court ruled in effect that "in a case where a post-mortem was really necessary, the coroner, by his employment, might bind the county to the payment for a sufficiency of professional skill to make the examination." What is considered to be the strong point here is that the Court did not allow extra fees for mileage and for attendance as a witness.

Having thus sketched as briefly as possible the charge of Judge Lowry, and presented the purely professional aspects of the question, we are prepared to discuss them in the order of their presentation. The first point which invites our attention is whether the opinion of a professional man is his property, and can be demanded as such by law, without compensation.

It must be acknowledged that a man's opinion is peculiarly his own. In the proportion as such an opinion is the result of an outlay of time, money, and labor, it becomes more or less valuable. It represents an entity of investment which is acknowledged by

every one and rated accordingly. It is as much property, in the ordinary acceptance of the term, as any substance the existence of which is recognized by legal title. It is so much stock in mental trade, for which the world is willing to pay.

Judge Morris, the counsel for Dr. Dills, makes a strong point in this connection by quoting in his argument the decision in the case of *Webb vs. Baird* (6 Ind., 13), and applying it to his client's profession: "To the attorney his profession is his means of livelihood. His legal knowledge is his capital stock. His professional services are no more at the mercy of the public as to remuneration than are the goods of the merchant, the crops of the farmer, or the wares of the mechanic."

We fail to see how any professional opinion is proved not to be property because the party delivering it is not apparently impoverished. If we view an opinion as an entity its bestowal upon another, and for his uses, implies, as far as that particular case is concerned, a direct and unconditional surrender. It is then as much the property of the person receiving it as it was formerly of the person who gave it. As the party giving an opinion yields up an exclusive right to it, he is made the poorer in proportion to the many whom he has benefited by its expression. The giving expression to an opinion implies to the party receiving it all the benefits of actual possession. If an opinion is of any value to the party receiving it, the one who gives must be somewhat of a loser, else we are forced to the acknowledgment that something can come out of nothing, or what is the same thing, that a part can be taken from a whole without the latter suffering any change. Of what possible value are professional opinions if they are not worth paying for?

His Honor does not consider that it is any labor to give an opinion; all that it is necessary to do being "to set in motion the organs of speech." The Court would seem to draw a distinction between the expression of an opinion and the opinion itself.

His opinion on this question would seem to be a striking illustration of this theory, in that its expression is its most remarkable feature, and proves how much may be said by merely putting "in motion the organs of speech." If his Honor's theory be true, why could not any fool give it equal force and expression by merely setting "in motion his organs of speech?"

That professional opinions should not be paid for simply because the trial was a criminal one, is the poorest possible objection. When a medical man is a mere witness to facts, he is bound with every other citizen to testify to all he knows in regard to them. In this respect all men, professional or non-professional, are equal. When, however, professional opinions are asked, the testimony becomes of a particular character, of more than ordinary value, and should be recompensed accordingly. These particular opinions are really more valuable to the community in the trial of criminal cases than in any other. According

to the new doctrine, however, this is perhaps the very best reason why the State should simply demand and not pay for them.

Not only this, but the physician, while bearing the burden of an ordinary witness, has that of an extraordinary witness forced upon him as well. His capital and stock in trade, his education, his individual experience, and the time which belongs to the practice of his profession, whereby he makes his daily bread, are all placed under contribution by the State, simply because all that it is necessary for him in giving a professional opinion is to "set his organs of speech in motion." In either case he must answer all and every question without reserve. As an ordinary witness, this is his duty; as an expert, this is his misfortune. To be equal with all other citizens, he has no business to have more than ordinary knowledge of matters and things.

In order to further prove that expert testimony should not receive any extra pay, his Honor states that all professional men are alike, as each and all are liable to be called upon for special and expert opinions.

We grant this so far as giving testimony is concerned, but it is by no means plain why any court should command these services without recompense. There is a strange lack of relation between services and pay which can hardly be explained merely on the ground that such services are professional. This is probably one way of interpreting the principle of law which provides against any extra tax upon a particular class, by allowing imposition upon as many classes as possible.

In the case of *Gaston vs. Board of Commissioners*, which is apparently relied on by his Honor to prove that medical witnesses as such are not entitled to extra fee, there is a direct contradiction to his view. Here a post-mortem was considered necessary, and a pecuniary equivalent allowed. Everything relating to that autopsy was paid for with a view that it should furnish aid in the trial. The professional opinion upon that case, founded upon said autopsy, was as valuable as for any other expert service, and the mere fact that the witness did not get extra mileage and extra fees for expressing said opinion has nothing to do with the main issue.

There are many other points which are of a technical character, but which, having no direct professional bearing upon the case, we pass by. The case has, however, been appealed in a masterly argument by counsel for the witness. As we before remarked, the ruling in this instance, until it be set aside, is, in the light of a precedent, a dangerous and unjust one to the profession, and the appellant deserves the thanks of his brethren for the course he has pursued in making his case a test one.

We are informed both by Court and counsel that the plea is a novel one, that in fact no question like the one under consideration was ever brought up for settlement. In reading, however, a very able address on the "Medical Witness," delivered before the Indiana

State Society by Dr. Wilson Hobbs, of Knightstown, Indiana (*Trans. Ind. State Med. Soc.*, 1877), we find a reference to a letter from the distinguished Medico-Jurist, Dr. John Ordronaux, and in answer to a question upon this very point Dr. Ordronaux calls attention to the case of the *People vs. Montgomery* (13 Abbott Pract. Rep., N. S., p. 207), where the Court said:—"A witness meets the requirements of a subpoena if he answers in court when required to testify and gives proper impromptu answers to such questions as are then put to him. He cannot be required, by virtue of the subpoena, to examine the case, to use his skill and knowledge to form an opinion, nor to attend, hear, and consider testimony given, so as to be qualified to give a deliberate opinion in a question of science arising upon such testimony." Even previous to this ruling, however, it has been and still is the custom to pay for expert testimony when such compensation is demanded before the examination-in-chief.

#### THE NEXT MEETING OF THE STATE SOCIETY.

The next meeting of the Medical Society of the State of New York will be held January 15, 1878, at Albany. As will be recollected, the time of holding the meeting was changed last year from June to the date named. We are constantly reminded of the necessity of giving regular notices of the meetings; otherwise, in consequence of the frequent changes of time which have been made of late, there might be a possibility that many of the members might become confused and lose an opportunity for attendance. The time set for the present meeting is illegal unless some special legislation is obtained beforehand to make it otherwise. We presume, however, that this will be attended to in time to prevent the Society from stultifying itself by the motion made last year. Let us hope if, for no other reason than that the Society should have a regular time to meet, that no further change will be made. We have no doubt that under the able presidency of Dr. Foster Jenkins, of Yonkers, the Session will be a very enjoyable and profitable one. There does not seem to be any doubt that the programme will be well filled, and that the usual number of valuable and interesting papers will be presented.

Dr. Squibb last year inaugurated a plan of soliciting papers, which on the whole was a very good one. It certainly secured an abundance of scientific material. In fact, if anything there were too many papers crowded into the allotted time, and there was too little opportunity for discussion. This was a trouble which might have been anticipated by referring all papers thus obtained to a proper committee. Far from the latter being the case last year, the Business Committee had but little more to do than to read the order of exercises. Doubtless Dr. Jenkins has provided for all these contingencies, and will in so far profit by the misadventures of his predecessor.



For the first time the new rule for the selection of the Nominating Committee will come into play. Heretofore the members of this committee were named by the President, now they are to be selected by the members of each district. It is difficult to see how any improvement could be made upon such an arrangement, or how its representative character could be more effectually secured.

#### THE LYING-IN HOSPITAL AT WASHINGTON AGAIN.

A WASHINGTON correspondent, and an Assistant Surgeon in the army, takes exception to our recent strictures upon the management of the Columbia Hospital for Women and Lying-in Asylum, and transmits the report of the institution for the fiscal year ending June 30, 1877, by way of furnishing the materials for correcting certain statements. As the statements were not only based upon, but explicitly credited to an article republished in pamphlet form from the November number of the *Louisville Medical Journal*, no original investigations of ours being either implied or pretended, it is a little singular that our correspondent omits to furnish the materials upon which a specific denial of the strictures can be predicated; particularly as we have no partisan bias to subserve in such strictures, and would be delighted to make the *amende honorable* most fully, were sufficient reasons assigned for doing so. For example, in looking over the schedule of annual appropriations submitted by the treasurer, it appears that for the six years ending June 30, 1877, they have amounted to \$203,100. Add to this amount the appropriations for 1866 to 1871, inclusive, in all \$73,000, and the sums appropriated to the hospital since its foundation foot up to the enormous aggregate of \$276,100—almost \$50,000 in excess of the aggregate stated upon the authority of the pamphlet. It is very true that the schedule of the treasurer accounts in full for the appropriations; but this is altogether beside the question whether extravagant expenditures have or have not been one of the features of the management under Dr. J. Harry Thompson, of whom our correspondent frankly confesses that he knows nothing. Eight thousand dollars for a mansard roof is, for illustration, a rather extravagant amount for such an improvement. Again, while the number of pay-patients and the amounts received for the last two fiscal years are stated in the report of the treasurer, their number under the administration of Dr. Thompson is not stated, and this is just the point at issue. Neither the present surgeon, Dr. P. J. Murphy, nor the administration of the hospital since he was appointed resident physician, was called in question in the article to which exception is taken; and as the report transmitted by our correspondent makes no answer whatever as respects the receipts from pay-patients from 1866 to 1875 inclusive, although the appropriations from 1872 to date form a part of the

document, it is difficult to understand upon what data the allegation that such moneys have not been accounted for during Dr. Thompson's administration is to be authoritatively denied. Most certainly not upon the authority of the report, for, while giving the receipts from that source as \$3,905 for the last two years, it ignores the nine years preceding. That the amount paid by such patients has been from \$6 to \$10 per week is not denied, nor are any of the material allegations of the critic in the *Louisville Medical Journal* specifically denied either by the figures of the report or by our correspondent. On the other hand, the report of the resident physician shows very clearly that the hospital and dispensary have not been devoted especially to the treatment of diseases peculiar to women, as specified in the act of incorporation, but that cases of alcoholism, epilepsy, maxillary necrosis, syphilis, *tænia solium*, etc., have figured prominently in the records of both. This, however, is a question of the interpretation of an act of Congress, upon which, within proper limits, reasonable differences in opinion may exist.

Our correspondent, one of the present Advisory and Consulting Board of Physicians and Surgeons, by the way, will therefore accept our excuses for declining to disavow the strictures condensed from the pamphlet in question, upon the insufficient data furnished by his letter and the accompanying report; and must, for the present, be content with our assurance that upon such facts being submitted as shall fairly refute the allegation of extravagant management, the earliest opportunity will be taken to place them before the medical public. Perhaps it may be well to assure him also that no special disrespect to the Board of Directors, further than to intimate that, granting the allegations of the critic, they did not exercise a sufficiently active supervision over the management of the hospital under Dr. Thompson's administration, was intended by the term "flexible," to which he excepts so strenuously. It is, no doubt, true that the statements of the critic were actuated by personal dislike. But that is not our affair, unless they are disproved.

### Reviews and Notices of Books.

THE EAR; ITS ANATOMY, PHYSIOLOGY, AND DISEASES.  
By CHARLES H. BURNETT, A.M., M.D. Philadelphia:  
Henry C. Lea. 1877.

THIS treatise, as its title announces, is intended for the use of medical students and practitioners. It is a work of large size (over 600 pages), and is distinguished from all other existing treatises on the ear (in the English language) by the fact that an unusually large portion of the space is devoted to the anatomy and physiology of this organ. Hitherto students have almost sought in vain for a sufficiently minute and clear account of these two fundamental subjects.

They have been obliged to glean their knowledge from text-books of anatomy, from shorter monographs, and from magazine articles. In the present manual all the latest advances of any importance in the anatomy and physiology of the ear are embodied in the author's clear and well-arranged account.

The second portion of the treatise is devoted to the important subject of how to examine a patient. The author describes the different procedures clearly. His invective against the hard-rubber ear-syringe usually sold in the shops, will hardly be assented to by most aurists. On the other hand, the form of syringe which he advocates as "the model ear-syringe" is undoubtedly safer than the one which he condemns, but unfortunately the shape and size of its nozzle are such that with it very few patients could possibly cleanse their ears thoroughly.

Further along we find an excellent description of the proper way in which to introduce the Eustachian catheter. Not a word, however, is said of the use of the forehead-mirror in examining the deeper parts of the ear. This method, which enables the physician to use both his hands, requires perhaps a little more practice at the beginning than does the usual method of holding the mirror in one hand. After the physician, however, has once acquired the ability to use the forehead mirror in illuminating the deeper parts of the ear, nothing would probably induce him to return to the antiquated method which compels him to have an assistant whenever he performs paracentesis of the drum membrane.

The remainder of the volume is devoted to aural pathology and therapeutics. In the main the author has fulfilled this part of his task creditably. In the section relating to chronic catarrhal inflammation of the middle ear, one searches in vain for the slightest reference to the subject of prognosis. This oversight should be corrected in the next edition.

Finally, under the head of chronic purulent inflammation of the middle ear, we find the remarkable statement (p. 485), that the "solid stick [of nitrate of silver] should *never* be used." Again, in another place (p. 524), in describing the proper treatment of the stump left after the removal of a polypus, he states: "But at best the 'solid stick' is a dangerous application about the ear, and should, therefore, be kept out. A saturated, aqueous solution of nitrate of silver (480 gr. to f.  $\frac{3}{4}$  i.) may be advantageously applied to the seat of the polypus and any surrounding granular surface, by means of a tuft of cotton on the cotton-holder." That strong solutions of nitrate of silver simply stimulate the growth of granulation-tissue, while the "solid stick," thoroughly applied, represses its growth, is a pretty well-established fact in surgery. An extensive experience in the use of the "solid stick" (in the form of a bead fused upon the end of a probe or cotton-holder) in the treatment of granulations (or stumps of polypi) in the middle ear, has convinced the writer of this review that such applications are not only very effective, but perfectly safe.

Notwithstanding the few defects (or differences of opinion) to which we have called attention, this new treatise on the ear cannot fail to prove a valuable addition to the physician's library. Books cannot teach him much about aural pathology and therapeutics until he has served a certain apprenticeship in aural examinations. This apprenticeship very, very few men are willing or able to serve. On the other hand, books can teach him—in connection with such dissections as every physician can make—a great deal about the anatomy and physiology of the ear, and certainly from no other one book in the English language can he ac-

quire this knowledge better than from the one we have thus hastily reviewed.

1. A GUIDE TO THERAPEUTICS AND MATERIA MEDICA. By ROBERT FARQUHARSON, M.D., F.R.C.P. Lond., enlarged and adapted to the U. S. Pharmacopœia by Frank Woodbury, M.D. Philadelphia: Henry C. Lea, 1877. Pp. 410.

2. THE ELEMENTS OF THERAPEUTICS: A CLINICAL GUIDE TO THE ACTION OF MEDICINES. By DR. C. BINZ, Prof. of Pharmacology in the University of Bonn. Translated from the fifth German Edition, and edited with additions in conformity with the British and American Pharmacopœias, by Edward J. Sparks, M.A., M.B., Oxon. New York: Wm. Wood & Co. 1878. Pp. 347.

THE almost simultaneous appearance of these two works, the first a new one, the second new to most American readers, and the fact that they are both exponents of what may be called a new system of therapeutics, termed by its followers the "physiological," invests them with an unwonted interest, and invites a careful examination and critical consideration of the facts and doctrines on which it is based. In this preliminary notice, however, we cannot attempt a complete review of this large and increasing field of research, but must confine ourselves more particularly to an exposition of the special peculiarities and merits of the individual works before us.

1. FARQUHARSON.—In examining the American edition we have naturally compared it with the original, and shall base the majority of our remarks upon the latter, for the simple reason that in perusing the former we found ourselves continually mixing the editor with the author, in spite of a plentiful supply of brackets that served to mark the additions to the original text. After a very judicious consideration of the questions of combination of medicines, period of administration, relative value of large and small doses, idiosyncrasy, habit, accumulation, incompatibility, etc., the author proceeds to a consideration of the different drugs in succession. There is no attempt at classification, and the drugs follow each other without regard to physiological, chemical, or other apparent relationship. In the American edition the editor has arranged them alphabetically in accordance with the plan of the U. S. P. In the discussion of the individual drugs, however, the author has adopted a novel and somewhat striking method. It consists in arranging the assumed physiological actions of the medicine in one column, and its therapeutical uses in a parallel one. This will be most readily understood by the following extract:

| "LEAD."                                       |                                            |
|-----------------------------------------------|--------------------------------------------|
| LOCAL ACTION.                                 |                                            |
| Physiological.<br>'The external action,' etc. | Therapeutical.<br>'Lead in the form,' etc. |

#### INTERNAL ACTIONS AND USES.

|                                                                                                      |                                                                                                                   |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1. Brain and Nervous System.—<br>—When lead, etc.                                                    | 2. 'This contractile influence,' etc.                                                                             |
| 3. Heart and Circulation.—<br>'During the action,' etc.                                              | 3. Acetate of lead is an excellent astringent in diarrhoea, more especially that of phthisis and British cholera. |
| 3. Intestinal Tract.—'A prominent symptom of chronic lead poisoning is obstinate constipation,' etc. | Dr. Thorowgood has obtained good results from lead in obstinate obstruction of the bowels.'                       |

We fail at this point to perceive the relationship between the physiological action of the drug and the clinical results obtained by Dr. Thorowgood.

To the author's text the editor adds a list of the official preparations of lead with doses, etc.



The remaining drugs are considered in the foregoing manner. It is somewhat unfortunate that the lack of correspondence between the physiological effects and the results of clinical experience, as above indicated, form the rule rather than the exception throughout the whole work. In some instances, however, a reconciliation is attempted by means of explanations remarkable for ingenuity rather than soundness.

We are sorry to state that the work contains numerous errors, as on page 65 (Eng. ed.). "Alkalies" are said to be the antidotes to ammonia poisoning. Under the heading, "Acidum citricum," the author states that 17 grains of this substance neutralize "20 grains of bicarbonate of soda" or "35 grains of carbonate of soda." On page 85 (Eng. ed.), he says that "the familiar black wash" is "calomel dissolved in lime-water" (italics our own). We regret that these peculiarities have escaped the attention of the editor. On page 92 (Eng. ed.), we find "R. Hydrargyri chloridi, gr. ij.; pulveris opii, gr. ½; confectionis rosæ q. s., ut fiat pilula quartâ quâque horâ sumendâ." We confess that we were sorely puzzled by this prescription, as the expression "Hydrarg. chloridum" is not official in the Br. Ph., and its recent employment in a prescription in this city resulted in a serious accident. In the American edition Dr. Woodbury has changed the Hyd. chlor. to Pil. hydrargyri, a substitution which the context appears to fully warrant.

On the whole, the work is rather carelessly written, and not fully revised, but the American edition possesses in addition the extracts from the pharmacopœia, notices of several new remedies, and a series of "Questions in Materia Medica," that are well worth perusal.

2. Bixz.—We rise from a careful perusal of this work with feelings of extreme satisfaction, in part due to the subject-matter itself, and in part to the concise but clear manner in which it is expressed. It has not been our fortune for a long time to study a work in which it was evident that the author was so completely conversant with his subject, and had so thoroughly sifted the materials of which he was to make use. The book consists of twelve chapters, each devoted to certain groups of medicines, as nervina depressoria, nervina excitantia, adstringentia, plastica, etc. Chapter I. opens with the statement that "most neurotic drugs act on certain parts of the nervous system more rapidly and distinctly than upon others, or else they affect some part of it very violently and the rest not at all. Probably this is due to differences in the chemical affinities of these parts." This idea, that many if not most drugs have special affinities for different portions of the organism, prevails to a great extent throughout the work, and reminds us of the organopathy of Rademacher, and of the similar but cruder notions of still older writers. That this idea is in the main correct, the work before us, as well as modern physiological experiments generally, affords abundant evidence. How far it may be utilized for therapeutic purposes, clinical observation can alone decide. The main features of the work are a condensed statement of the results of physiological research in connection with the different drugs, and the exceedingly practical character of the advice which is given regarding their administration. Speaking of hypodermic injections of morphia, the author says that they are "only suited to such chronic cases as are incurable, or to cases in which the effects of disease are less tolerable than those which morphia induces." . . . "In consequence of the proximity of large blood-vessels, and of the possible danger that the poison (morphia) may reach the nervous centres insufficiently diluted, it

is advisable, if possible, to avoid the neighborhood of the head and neck altogether as the seat of injection." Of atropia, he says that it "has been much used subcutaneously in treating certain neuroses, but owing to the severity of some of its attendant phenomena, and especially of delirium, it is necessary to employ it in this way with the utmost caution." Of lobelia: "its efficiency seems to be partly dependent on the conditions under which the plant is grown. At any rate, the reports founded on the use of the cultivated variety in Germany cannot be trusted, while those which deal with the wild American plant are more reliable." The great difference in the medicinal effects of the two varieties of *Cannabis sativa*, distinguished pharmaceutically as *C. Indica* and *C. Americana*, is well recognized; but the comparative values of other medical plants grown in different countries have not been as fully investigated as the importance of the subject demands. Of conium: "its active constituent is the liquid conia (official in Germany), and it contains a much smaller quantity of another crystalline alkaloid conydrin. . . . We should expect from the volatility of conia that there would be none of it left in the dried plant, and this appears to be the case. It is irrational, therefore, to use any but the fresh drug, or, at most, the yellow alkaloid." The articles on opium, belladonna, salicylic acid, and quinia are worthy of special study. At the end of each article the editor has appended a list of the preparations official in the British and United States Pharmacopœias, together with their doses.

The work appears to have been written with great care, and bears the impress of reliability, and is a volume that we do not hesitate to recommend in the strongest manner.

#### TRANSACTIONS OF THE WISCONSIN STATE MEDICAL SOCIETY. 1877.

If the medical profession in the far Northwest is in the habit of doing such thorough work as is represented in this pamphlet of 150 pages, our metropolitan physicians must look to their instruments if they would maintain their hegemony in operative surgery, and to their pens if they would hold their supremacy in medical literature. Exclusive of President Bartlett's address and of routine matter, the report contains sixteen articles, led off by a lecture from Dr. Kempster, of Oshkosh, on the "Brain in Health and Disease," which compares favorably both in method of investigation and caution of statement with the work of the best German master in psycho-physics. Dr. F. H. Day, of Wauwatosa, prefaces with a report on practical medicine in the State, a group of able articles, of which Dr. Wenzel's on the "Etiology of Typhoid Fever," and Dr. Barnett's on the "Treatment of Scarlatina," are noticeable for scientific precision and practical suggestiveness. Adopting the ferment theory of the disease, Dr. Barnett discusses the relative value of such antizymotics as sulphite, bisulphite, hydrosulphite, and sulphocarbonate of soda, and salicylic acid, giving his preference to the sulphocarbonate, and suggesting belladonna, digitalis, and alcoholic combinations as appropriate cardiac stimuli. Dr. Senn's report on operative surgery describes a large and varied series of cases and operations, with the minuteness essential to practical value; and under the caption of "Uterine Diseases," the hints of Dr. Fox relative to the best methods of correcting displacement are worthy the attention of gynecological experts as well as of professional tyros. Dr. George W. Jenkins, Kilbourn City, reports two interesting cases of embolism; Dr. E. W. Bartlett, Milwaukee, a

successful transplantation of the conjunctiva, and Dr. M. M. Davis, Barnaboo, a successful treatment of tumor of the neck by hypodermic injections of nitrate of silver. The pathological report of Dr. C. L. Stoddard, Whitewater, abounds in valuable memoranda of cases.

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

#### SURGICAL SECTION.

*Stated Meeting, Nov. 13, 1877.*

DR. STEPHEN SMITH, CHAIRMAN.

The paper read by Dr. L. M. Yale,

ON CERTAIN CONSIDERATIONS RESPECTING THE MECHANICAL TREATMENT OF CHRONIC DISEASE OF THE JOINTS, WITH ESPECIAL REFERENCE TO THE USE OF TRACTION (see p. 24).

being before the Section for discussion, Dr. A. C. Post remarked that he thought the author of the paper had unintentionally slandered our fathers in the profession by making the statement that all articular diseases were regarded as constitutional, and that they were treated only by constitutional means. For long before the present mechanical treatment of joint affections came into use, it was a common practice to treat articular disease as a local inflammation, and by the use of the local remedies supposed to be the best adapted to subdue such inflammation, without regard to diathesis. It was common to employ leeches, cups, blisters, moxas, etc., including the actual cautery. He was of the opinion that the reader had overlooked that fact, and that in that respect the statement in the paper should be corrected.

DR. YALE remarked that he intended to speak with special reference to mechanical treatment.

Dr. Post continued by saying that the treatment of joint disease by rest was not of very modern origin, although for some time it was but little used. Comparatively little, however, had been done in the way of making extension and counter-extension, until within the past few years. The paper was regarded as one of very great interest, and one which gave correct views regarding the mechanical treatment of articular affections.

DR. WEBER remarked, with reference to *massage*, to which the author of the paper had referred, that it was a very old method of local treatment, and had been used very largely with a view of benefiting joints which were in a state of chronic inflammation. It would be well, therefore, to modify the statement that mechanical treatment had not been used until quite recently. With reference to the presence of a strumous element in joint diseases, Dr. Weber related the history of a case under observation, which seemed to show that a similar cachexia could be developed by improper nutrition and hygiene in one not having any hereditary tendency thereto. In his case the pain in the diseased joint ceased on the second day after the application of a mechanical apparatus that secured perfect rest; the general febrile movement was also diminished. But at the end of nine days, no constitutional treatment having been adopted, the appearance of the joint remained unchanged. The mechanical appliance was continued, cod-liver oil with the syrup of the iodide of iron was administered, and the improvement at once became marked and rapid.

DR. LEWIS A. SAYRE remarked that there was one point in the paper which he thought should be corrected, namely, that the principle of traction in the treatment of joint affections originated empirically. He believed that to the late Dr. Alden March, of Albany, the credit should be given of first directing the attention of the profession to the use of traction in the treatment of joint disease. It was done in a paper in which he gave his reasons for employing traction in the treatment of hip-joint disease. The reasons assigned were that interstitial absorption was produced in the head of the bone and the acetabulum because of the incessant pressure caused by the reflex contractions of the muscles acting upon the joint, and Dr. March's idea was to correct that tendency by making traction upon the limb. It could hardly be said, therefore, to have an empirical origin, and he would be pleased to have Dr. Yale correct his paper in that particular.

Dr. Post remarked that there was nothing offensive in the term empiricism as used, for it simply meant "as the result of clinical experience." It was proper, in many instances, to treat disease in the line of clinical experience, notwithstanding we might not be able to reason exactly how the treatment operated.

DR. C. FAYETTE TAYLOR exhibited sketches and photographs of interesting cases of joint disease. He was of the opinion that perhaps our ideas with reference to ankylosis in Pott's disease should be corrected. In a case related, motion, after recovery, was present in the five vertebræ involved.

Dr. GIBNEY was happy to hear the reconciliation brought about by Dr. Yale, namely, that joint diseases should be treated both constitutionally and mechanically.

DR. GOODWILLIE related the history of a case in which the temporo-maxillary articulation was the seat of chronic disease. Almost immediate relief was afforded by the use of an interdental rubber splint.

DR. JUDSON thought that one point might with propriety be emphasized rather more than it had been, and that was the giving of mechanical protection to diseased joints from concussion in locomotion, and from the weight of the body while standing. That feature in the treatment of hip disease had not received the attention it should, although the pad attached to the long splint employed in the treatment of that affection was a *step* in the right direction.

DR. SAYRE referred to the liability to do damage by making excessive traction. It was a mistake very commonly made. Only so much traction was required as was necessary to make the patient perfectly comfortable; more than that was absolutely injurious.

Dr. Post referred to the value of issues established by the actual cautery in the treatment of certain obstinate cases of chronic disease of the joints.

DR. SAYRE corroborated Dr. Post's remarks upon that point.

After extending a vote of thanks to Dr. Yale for his paper, the Section adjourned.

### MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, Dec. 17, 1877.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### REPORT OF THE COMMITTEE ON ETHICS.

DR. R. J. O'SULLIVAN, from the Committee on Ethics, made a report, which was referred to the Committee Minora.



## ON THE THERAPEUTIC USES OF SOME OF THE RANUNCULACEÆ, ESPECIALLY IN NERVOUS DISEASES.

THE PRESIDENT read a paper upon the above subject, in which brief reference was made to the therapeutic uses of *hydrastis canadensis*, *podophyllum*, *pulsatilla*, *actæa racemosa*, *aconite*, *staphisagria*, and *helleborus niger*.

While studying the history and the characteristics of each of these drugs, the historical point was brought out that it was Baron Stoereck who first performed experiments upon healthy persons with reference to the action of certain medicines. *Pulsatilla*, as a remedy, had its origin among the Arabians, and was used by them in the treatment of malarial fevers. It was thought that this remedy could be employed with advantage much more extensively than it was at the present time.

DR. H. G. PIFFARD regarded *pulsatilla* as a remedy that should be used more extensively. He had employed alcoholic preparations of the drug in dysmenorrhœa complicating acne, and in epididymitis, with good results. In two out of three cases of dysmenorrhœa treated the relief has been rapid and complete, and continued six or eight months. In acute epididymitis the pain was relieved in from six to twenty-four hours, and all was accomplished that ordinarily followed the use of tobacco poultices, or recourse to the emeto-cathartic plan of treatment. The swelling did not subside as rapidly as did the pain. Special attention was directed to the fact that a reliable preparation could only be made from the *fresh* plant, and perhaps one reason why the *use* of the remedy had not been followed by more satisfactory results was because the preparations employed had been made from the dried plant.

DR. PUTNAM-JACOB believed that *podophyllum* acted by producing a primary irritation upon the peripheral extremities of nerves spread out upon the mucous membrane, that that impression was transmitted to central ganglia, and that those ganglia sent out motor influences to the muscular fibres in the coats of the gastro-intestinal tube, and also to the liver, rather than by acting upon the termination of the bile-duct in the duodenum, as suggested by the author of the paper.

The action of *aconite* was believed to be inhibitory with reference to the cardiac ganglia.

DR. LEALE referred to two cases of death produced by the administration of *podophyllin*. The dose prescribed by Stillé was two grains, but one and one-half grains had been administered to a woman in the sixth month of pregnancy; it produced an active effect and the movements of the fetus ceased. He was called in consultation, and was not able to discover any foetal heart-beats. The child was carried to term, and when delivered had the appearance presented at six months' development.

In the second case a horse-farrier, accustomed to prescribe for horses, took twenty grains, and a fatal result was produced.

DR. G. H. FOX corroborated the statements made by Dr. Piffard regarding the use of *pulsatilla* in the treatment of epididymitis.

DR. SELL referred to the use of several of the remedies mentioned, and to certain special conditions in which he had found them useful.

The Society then adjourned.

DR. JURECKI, who was killed before Kars, is the only Russian surgeon who has fallen in the present war, Ugrinmow, a surgeon of the Bulgarian contingent, was wounded at Shipka.

## New Instrument.

## LEVER EXSECTION SAW.

By B. A. WATSON, M.D.,

SURGEON TO JERSEY CITY CHARITY AND ST. FRANCIS' HOSPITALS,  
JERSEY CITY, N. J.

THE above engraving represents an instrument intended to take the place of the chain-saw, and the inventor believes that surgeons will find it more satisfactory. The complete instrument consists essentially of a frame, a lever saw, and an adjuster. The frame is composed of an oval top and lateral bars. The appendages of the former are lateral handles and a transverse bar. The top of the frame and the transverse bar each contain a slot through which the lever passes, and is moved while the instrument is in use, and at the same time the lateral handles are required

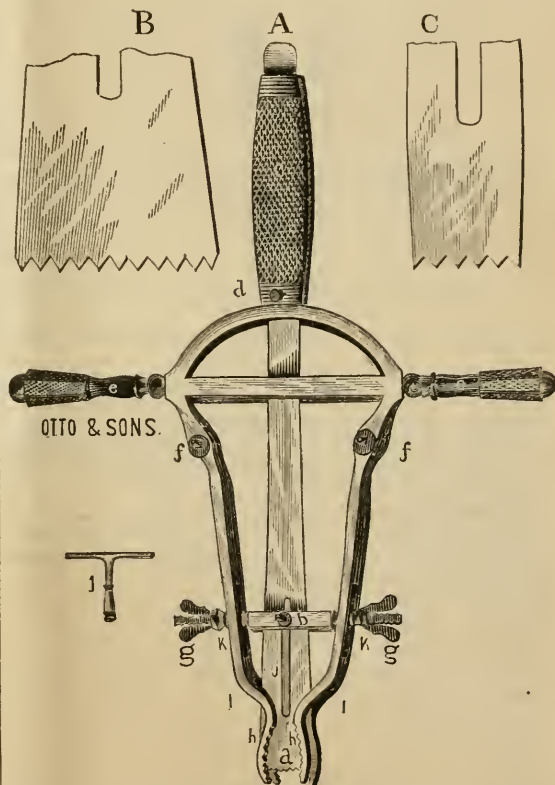


FIG. 1.—A, complete instrument; a, saw; b, fulcrum; c, sliding handle; d, screw by which handle is made immovable; ee, lateral handles; ff, joints; gg, adjuster-screws; hh, double clasp; ii, slots in clasp; j, slot in saw; kk, slots in lateral bars; l, key.

B, wide saw; C, narrow saw.

to give the instrument the necessary steadiness. The lateral bars on each side are connected with the top of the frame by means of hinge-joints. These joints may be rendered immovable by the key which is fitted to the screws which hold the different parts of this structure together. In each lateral bar there is a slot two inches in length, through which the adjusting bar (of saw) passes. These slots contain three cup-like depressions, intended to receive the rounded head of the screws, by means of which the adjustment of the

saw may be made at any fixed point. The lower portions of the lateral bars are shaped so as to form clasps which firmly seize and hold the bone while the saw is in motion. In each clasp there is a slot which allows the requisite freedom of motion to the saw.

Each instrument is furnished with two saws, which differ mainly in the extent of their cutting surfaces; the wide one being a fraction more than one inch, and the narrow one being a fraction more than one-half an inch. About one inch above the cutting edge in each saw a slot commences and extends two inches upwards; this slot receives the fulcrum which passes through the adjusting bar, and while this bar remains stationary the saw simply gravitates downward as the act of sawing progresses. The saw and lever are made into a single piece of steel, which is of uniform thickness throughout. The handle is movable, and may be fixed at any distance from the cutting edge of the saw by means of the screw. The adjuster consists of a bar and two screws.

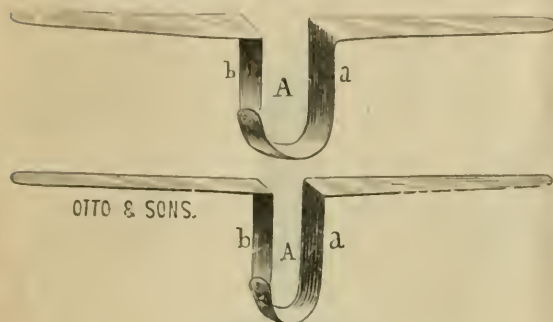


FIG. 2.—AA, protectors; aa, long arms; bb, short arms.

This figure represents instruments designed for the protection of the soft parts while the saw is in use. The wide one is used with the wide saw, and narrow one with the narrow saw. The mechanism of these protectors is so simple that no further description will be necessary.

In using this instrument the first step in the operation is to separate the soft parts from the bone; this being done, the surgeon takes the long arm of the protector, and with the fenestrated end in contact with the bone carries it under the bone to the opposite side, where he joins the arms of the protector through the hook and fenestrum. The saw is now raised in the frame, and the clasps are placed on the bone; the adjusting and joint screws are firmly tightened by the key. This latter precaution is especially necessary in all cases of irregularities in the surfaces of the bone. The shape and structure of the clasps enable them to hold round bones with the greatest firmness. The instrument is now ready for use, and no further explanation is required to enable the practical surgeon to use it successfully. It is believed to possess especially the following advantages over the chain-saw:

1st. It is not liable to break, and consequently there should be an entire absence of the usual interruptions during an operation.

2d. The bone is firmly clasped, and therefore there cannot be the same trouble in making the section. This point is especially applicable while making the second cut.

3d. The excision can be made much more rapidly.

The instrument is manufactured and sold by Messrs. F. G. Otto & Sons, New York City.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Dec. 30, 1877, to Jan. 5, 1878.*

MURRAY, R. Colonel and Surgeon.—Announced as Medical Director of the Division. G. O. 1, Mil. Division of the Missouri, Jan. 2, 1878.

ALEXANDER, R. H. Major and Surgeon.—Granted leave of absence for four months, from Jan. 1, 1878. S. O. 1, A. G. O., Jan. 2, 1878.

CARVALLO, CARLOS, Capt. and Asst. Surgeon.—Granted leave of absence for one month, and permission to apply for ten days' extension. S. O. 1, Dept. of the Missouri, Jan. 2, 1878.

BUCHANAN, WM. F., Capt. and Asst. Surgeon.—Granted leave of absence until April 1, 1878, and his resignation accepted by the President, to take effect April 1, 1878. S. O. 2, A. G. O., Jan. 3, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES IN NEW YORK FOR 1876 AND 1877.—Comparative statement of cases of Contagious Disease reported to the Sanitary Bureau, Health Department, for the two years 1876 and 1877.

| YEARS     | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-Spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-----------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| 1876..... | 15            | 556            | 2422           | 139                        | 1657     | 3510        | 878        |
| 1877..... | 15            | 608            | 3482           | 132                        | 1253     | 2337        | 48*        |

\* No cases of small-pox have been reported at this Bureau, as occurring in the city since July 16, 1877.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 5, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-Spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Dec. 29, 1877.... | 0             | 13             | 90             | 2                          | 50       | 82          | 0          |
| Jan. 5, 1878....  | 0             | 9              | 85             | 2                          | 70       | 66          | 0          |

THE TREATMENT OF ABORTION.—Our attention has been called to some typographical errors in Prof. Penrose's lecture on abortion in the number of RECORD for December 29th. At the bottom of page 819, 2d column, instead of giving the woman *two grammes* of opium by the rectum, it should be *two grains*. The former dose would not only prevent a given abortion, but all others in the same subject. On page 820, the dose of five drachms of bromide of potassium is an obvious absurdity.

RHODE ISLAND MEDICAL SOCIETY.—The quarterly meeting of the Rhode Island Medical Society was held December 19th. Dr. E. T. Caswell read a paper on Fracture of the Spine, Dr. Garvin a paper on Alimentation in Disease, Dr. Capron a paper on Placenta Prævia.



## Original Lectures.

### DISEASES OF THE NERVOUS SYSTEM.

A LECTURE DELIVERED AT BELLEVUE HOSPITAL  
MEDICAL COLLEGE, NOVEMBER 30, 1877.

By C. E. BROWN-SÉQUARD, M.D.

[Reported for THE MEDICAL RECORD.]

**SYMPTOMS INDICATING DISEASE AT THE BASE OF THE BRAIN, CONTINUED—SYMPTOMS ACCOMPANYING DISEASE AT THE LOWER AND AT THE UPPER PART OF THE PONS VAROLII—NYSTAGMUS—CONJUGATE DEVIATION OF THE EYES AND NECK—TWO IMPORTANT SERIES OF FACTS WHICH SHOW THE FALSITY OF THE GENERALLY ACCEPTED DOCTRINE REGARDING THE PHYSIOLOGY OF THE NERVOUS SYSTEM—ABSENCE OF DECUSSATION OF VOLUNTARY MOTOR FIBRES AT THE BASE OF THE BRAIN—HEMIPLEGIA DUE TO DISEASE IN THE CEREBELLUM, ETC.—SYMPTOMS, SUCH AS GENERAL WEAKNESS, AMAUROSIS, HEADACHE, VOMITING, PECULIAR DISORDER OF MOVEMENT, ETC.**

GENTLEMEN:—You will remember that a fortnight ago I examined with you certain questions relating to the modes of diagnosis between cases of disease in the base of the brain and cases of disease in other parts of the brain. I said that it was sometimes very difficult to diagnose paralysis caused by disease in the base of the brain from paralysis caused by disease in other parts of the brain, but I mentioned a good many facts which tend to show that, in a large number of cases, at least, we can determine where the cause of the paralysis is situated. There are a few symptoms which I did not mention, as I was unable at that time to make the subject absolutely complete, and to those I will now direct your attention.

#### SYMPTOMS OF DISEASE IN THE PONS VAROLII.

When there is paralysis of one side of the body, caused by disease in the pons varolii, if there is facial paralysis—and there is almost always—it exists upon the side of the face opposite to the paralysis in the body. This is true in most cases; the facial paralysis, however, may exist upon the side corresponding with the paralysis in the limbs.

If the seat of the disease is low down in the pons, near to the medulla oblongata, if it affects the roots of the facial nerve, then there will be facial paralysis upon the side corresponding with the disease, and paralysis of the body upon the opposite side. But if the disease be in the upper part of the pons varolii, the symptoms are different, and in most cases the paralysis exists both in the face and in the limbs upon the side opposite to that on which the disease exists. But there is one very important feature. If you look at a patient who has been attacked with brain disease, you may notice that a kind of paralysis is present which consists in an inability to close the eye; the orbicularis palpebrarum is paralyzed, and this form of paralysis occurs almost exclusively in cases of disease in the pons varolii. This muscle is not found paralyzed, except very exceptionally, in cases in which the disease exists elsewhere than in the pons varolii. If you direct the patient to close the eye, in case the disease exists in the lower part of the pons varolii, you will find that he is unable to do so. There is, therefore, in that symptom a characteristic condition which in almost all cases shows that the disease is either in the

pons varolii or near there. If the orbicularis palpebrarum is paralyzed, and the side of the face is also paralyzed, and the limbs are paralyzed upon the opposite side of the body, there is almost a certainty of the existence of disease in the lower part of the pons varolii. As you will see in the last lecture of this course, this is an important fact to recognize, because the treatment of disease in the pons varolii is not the same as treatment of disease in other parts of the brain. This peculiar feature is well worth remembering, as it is quite characteristic.

#### NYSTAGMUS.

There are other symptoms which show that the disease is in the pons varolii, or in the medulla oblongata, or in both. One of these is very striking, and is called *nystagmus*; it consists of an involuntary spasmodic oscillation of the eyeball. What this trembling of the eyes produces with reference to the gait of the patient you can readily understand.

#### CONJUGATE DEVIATION OF THE EYES AND NECK.

Another feature of interest consists in a symptom which has been studied only within the last fifteen or twenty years, and more particularly by Vulpian and his pupil at Geneva. This symptom consists of a deviation of the eyes and of the neck. If I look towards my left shoulder you will observe that both my eyes and my neck are turned in that direction, and you have an illustration of what has been called conjugate deviation of the eyes and neck. This is a very frequent symptom indeed of softening of the brain. It is also a frequent symptom in cases of hemorrhage in the brain.

There is another peculiarity about this symptom. In cases of disease elsewhere than in the pons varolii, the tendency of the eyes and the neck to turn towards one shoulder shows itself, but it is towards the side where the injury exists in the brain; whereas, if the disease is in the pons varolii, the deviation of the eyes and neck is very generally towards the paralyzed side of the body, and not towards the seat of injury. This symptom may be present with disease in any part of the brain; it comes in fact as convulsions do, in connection with any disease or injury of the brain. The symptom consists of a spasmodic or convulsive movement of the muscles of the eyes and the neck, and the deviation in most cases is towards the left when the disease is in the left side of the brain, and towards the right when the disease is in the right side of the brain, and not towards the side of the body which is paralyzed. In cases of disease of the pons varolii, however, it is not infrequently just the reverse, and the deviation will be towards the paralyzed side and not towards the side of the pons which is injured. Here again we have a means of diagnosis between disease in the pons varolii and disease in other parts of the brain.

Still, there are a number of cases in which the deviation has taken place in the wrong direction to agree with the statements which I have just made; that is, there are cases in which disease in any part of the brain, instead of producing deviation towards the side injured, has produced deviation towards the opposite side, and *vice versa*. In most cases, however, the rule mentioned will hold good.

#### TWO IMPORTANT SERIES OF FACTS.

Before passing to the study of other parts of the nervous system, I have to say two things which I regard as very important, and hope you will remem-

ber. For by these two series of facts the generally accepted doctrine of the physiology and physio-pathology of the nervous system are shown to be false, and it is especially for this reason that I ask you to do me the favor to write them down in your memory.

*First.*—There are many cases upon record in which the pons varolii or the medulla oblongata have been in a great measure altered in structure without the production of marked paralysis. You remember that I have often said a few fibres of communication existing between the upper portion of the brain and the spinal cord may be perfectly sufficient for the persistence of almost all voluntary movements. If this is so, the facts are very simple which I will now mention. You can easily understand if a few fibres—a few compared to the immense number—are sufficient to establish a communication between the brain and the spinal cord, how it is that extensive disease in these parts may occur without producing marked paralysis. You can easily understand how, in a case like Stanley's, in which a sailor was able to perform his duties up to within a few weeks before his death, and who died of another disease than that of the brain, this might occur without marked paralysis, although the medulla oblongata was reduced to one-fifth its normal size by pressure at the foramen magnum produced by an exostosis. Notwithstanding this pressure upon the medulla, the sailor performed all the duties which his calling required, with force and agility. He died of a disease entirely distinct from this brain affection, and there was no marked paralysis in his case at any time, if any paralysis at all. There are many other cases upon record which have nearly the same strength as the one reported by Stanley.

Indeed, there are many cases in which the odontoid process has become extremely large, and so pressed upon the medulla oblongata as to render it extremely small; what remained of the medulla certainly could not have been perfectly healthy, and yet no marked paralysis was developed.

There are many other cases in which tumors have produced marked alteration in the medulla without giving rise to marked paralysis. There is one case on record in which it is said that the medulla oblongata, when cut into, gave a noise like cutting into hard cheese, so extensive was the change in structure; and yet no marked paralysis existed. In some cases the structure of the medulla oblongata has been so changed that not a single fibre has remained unaffected.

So there are many cases—a great many indeed—in which these parts have been deeply altered without producing any marked paralysis. I purposely use the term marked paralysis, although the writers said there was no paralysis at all. But as I know that examination of the strength of the patient has not been done with sufficient care until quite recently, I allow for that, and instead of saying there was no paralysis, I say there was no considerable or marked paralysis. These facts may seem very strange to those among you who remember that these two portions of the nervous centre—the pons varolii and the medulla oblongata—are those which are the most delicate, and those upon which, if a sudden injury be inflicted, it almost always proves fatal, and proves fatal rapidly.

Indeed, a mere prick with a needle in the medulla of an ox will kill the animal immediately; and such is a favorite method of killing bullocks in Spain. A mere prick made at the lower part of the medulla oblongata almost always causes death at once. But although death is caused so easily in this manner, lesions which are not so rapid, or which occur at some

distance from the lowest part of the medulla oblongata, can gradually, and sometimes rapidly, alter the tissues without producing marked symptoms. There are cases on record in which hemorrhage has taken place into the pons varolii without producing marked paralysis. My former assistant, Dr. J. Hughlings Jackson, has seen one of these cases. There is no contradiction between the two series of facts: (1) that death may be produced suddenly from rapid and sudden injury of the medulla oblongata in its lower part; and (2) that disease slowly developed, or if developed at some distance from the "focus of life,"—the gray matter at the nib of the calamus—may not give rise to marked paralysis.

The *second* point, relating to the base of the brain, to which I wish to draw your special attention, is also most important. It is most important, for it establishes my views regarding the origin of paralysis and convulsions, or at least proves that the old views must be laid aside; certainly the old views are in opposition to thousands and thousands of facts.

What I have to say clearly shows that there cannot be any decussation of voluntary motor fibres at the base of the brain, such as is most essential for the maintaining of the old theories regarding the production of paralysis. You already know that what is taught in your books, and by nearly every man who teaches medicine, consists in admitting that paralysis appears on the opposite side of the body from the side where the disease which caused it exists in the brain; and that it appears so because of a pretended decussation in the middle line, either in the pons varolii or in the medulla oblongata, or in both, of voluntary motor fibres, which go from the right side of the brain to the left side of the body, and from the left side of the brain to the right side of the body.

It is very easy to show from a large number of facts that we cannot admit that voluntary motor fibres cross each other in the pons varolii; and it is also easy to prove that such decussation does not occur in the medulla oblongata. If I show that there is no part in the base of the brain in which decussation of voluntary motor fibres can be expected to take place, of course we are obliged to admit that there is no such decussation of voluntary motor fibres.

You already know that the bands of union between the brain and the spinal cord are the crura cerebri, the pons varolii, and the medulla oblongata.

The cerebellum has never been regarded as a centre from which voluntary motor conductors pass to the spinal cord. Indeed, it would be absurd to suppose that there can be through the cerebellum such a communication, because destruction of that organ a great many times by disease has proved absolutely that it is impossible for disease of the cerebellum to produce paralysis. There certainly is no one who admits that the cerebellum is a channel of communication between the brain and the spinal cord.

The only possible channels of communication, then, are the crura cerebri, the pons varolii, and the medulla oblongata. The question then which is decisive as regards the theory of the cause of paralysis is, is there or is there not any decussation of voluntary motor fibres in any of these parts? I will now take the facts as they exist.

Suppose there is disease in the pons varolii destroying one-half of that organ. In most of these cases, not in all, there has been paralysis upon the opposite side of the body, and only there. There has been no paralysis at all upon the corresponding side in most of these cases, while the paralysis was absolute in the limbs upon the opposite side. What conclusion do



we draw from this? It seems clear from this fact that fibres which serve for the production of voluntary movements upon the opposite side of the body, pass across there, as we find complete paralysis upon the opposite side.

If you admit this conclusion, you must also admit that the decussation which takes place in the pons varolii does not include all the voluntary motor fibres; for if they all cross at that point, lesion in either half of the pons would destroy the voluntary motor fibres going to both sides of the body, and there would be paralysis of both sides of the body, and not paralysis of the opposite only, as occurs in most cases. The fibres which come from the side in which the disease exists are destroyed, and the fibres coming from the opposite side are also destroyed; so if these were all the fibres which serve as conductors of voluntary motor action, there would be complete paralysis of both sides of the body. We see, however, that paralysis occurs only upon the opposite side of the body, or upon the corresponding side with the disease. We must then, as also does Schiff and many others, reject the view that the voluntary motor fibres make their decussation in the pons varolii, and there only. The fibres which decussate in the medulla oblongata are, as you well know, extremely numerous. These fibres go through the pons varolii.

For a long time I believed that decussation of the voluntary motor fibres took place only in the medulla oblongata, and I published a paper with the view of establishing that doctrine. In after-time facts came which seemed to give strength to what I had stated. We know that when there is disease in one-half of the pons varolii, or in the crura cerebri, or in other parts of the brain, there is frequently degeneration of the fibres all along the crura cerebri, then in the pons varolii and the anterior pyramid upon the same side, and so the theory seemed to be complete. But now I think it can be proved absolutely that decussation does not take place in the medulla oblongata alone. If this is done it will be shown clearly that the decussation in the pons varolii is not that which is employed in the transmission of the power of the will from one side of the brain to the other side of the body; it will be shown that we must reject the view that voluntary motor fibres decussate in the brain at all. What are the facts? There are many cases of disease of either part of the spinal cord upon one side without any paralysis whatever.

The corpus restiformis, or anterior pyramid upon one side, can be destroyed without producing any marked paralysis upon the opposite side of the body. Still more, experiments upon animals, as already stated, have shown that the anterior pyramids can be divided without producing paralysis. After section of one-half of the medulla oblongata, you may see paralysis upon the corresponding side just as frequently as upon the opposite side of the body. There are some physiologists who maintain that paralysis in such cases is always upon the same side. I have seen the paralysis incomplete on one side, incomplete on the other, and complete on both sides. If we find that disease can destroy one anterior pyramid without producing paralysis; furthermore, if we find that disease can destroy both anterior pyramids without producing paralysis, as in the case reported by Prof. Vulpius, in which no trace of paralysis appeared, the woman walking into the wards of the hospital two or three days before her death, and giving no other indication of serious disease of the brain—when we see such facts, and then find at autopsy that almost all the fibres of the anterior pyra-

mids are destroyed, or at all events atrophied, it is clear that we are not to look to the medulla oblongata as the place where decussation of voluntary motor fibres takes place. If you put these two series of facts together—those relating to the pons varolii and those relating to the medulla oblongata—you will find that the voluntary motor fibres cannot be decussated in the pons varolii or in the medulla oblongata, and, as there is no other place where decussation can occur, the conclusion must be that, if there are fibres in those parts which decussate, they are not voluntary motor fibres. This is the conclusion to which I wish to lead you. The result is that paralysis, which we know to be almost always upon the side of the body opposite to the seat of the disease in the brain, cannot depend, as it is claimed, upon destruction of voluntary motor conductors. If there is no decussation, you can easily understand it is not because there are such decussating fibres that there is paralysis.

The same conclusion can be reached not only from an examination of facts relating to paralysis, but also from an examination of facts relating to convulsions. Convulsion, which is another form of muscular contraction due to involuntary muscular action; rigidity of the muscles, as well as choreic movements, trembling, catalepsy, etc., all these forms of disordered movements may appear upon the side of the body corresponding with the seat of the disease in the brain. You will find that there are many cases in which disease has existed upon the pretended motor conductors in the pons varolii, the medulla oblongata, and the crura cerebri, with convulsions upon the same side of the body. If the fibres which exist in those parts are the fibres which move the muscles upon the opposite side of the body, you would, as a result of destruction of those fibres, always, always, always have convulsions upon the opposite side of the body. There should not be a single exception, if the fibres which cross each other in those parts go to produce movements in muscles upon the opposite side of the body, for irritation of those fibres would always produce convulsions upon the opposite side. As there are many, many cases in which disease in these parts upon one side has produced convulsions upon the same side of the body, it is clear that these fibres are not what it is pretended they are. I think the facts as examined clearly show that the voluntary motor fibres supposed to exist in the base of the brain and to decussate there—those from the left side of the brain for the right side of the body, and those from the right side of the brain for the left side of the body—have no existence as such. That there are fibres there which participate in the production of voluntary movements I will not deny, but they are not essential, nor are they motor fibres, as has been heretofore imagined. I will take up the subject in a subsequent lecture, and will then try and show by what mechanism the will-power acts upon muscles, and will give some rules which will lead to diagnosis of the cause of paralysis and convulsions, even when those cases appear to be in discord with the present theory.

#### HEMIPLEGIA CAUSED BY DISEASE IN THE CEREBELLUM, ETC.

I have now to deal with hemiplegia caused by disease in various parts of the brain; and I will first consider hemiplegia caused by disease in the cerebellum.

I will say that any one among you who will devote a few hours of study to individual cases of disease of the cerebellum, taking them at random as they are re-

ported in medical journals, and without selection at all, will at once find that almost any symptom can appear from disease of that organ. You will also find that there is no symptom which is constant. What the entire function of the cerebellum is, I do not know; but I believe one of its functions is to produce nerve-force. The only constant symptom that is present in disease of the cerebellum is general weakness, debility, and usually upon both sides of the body. Even in those cases in which there is a localized paralysis, there is usually debility in cases of disease of the cerebellum. There are many symptoms, however, which belong to disease of that organ, so that paralysis co-existing with those symptoms would lead you to suspect what part of the brain is diseased. One of the most important of these symptoms is loss of sight, and this symptom is very frequently present in cases of disease of the cerebellum. Why, you will ask, is there loss of sight? With the view I hold, that any symptom may appear from disease anywhere in the brain, it is very easily explained. There is no direct connection between the cerebellum and the eye. It has been supposed that when disease existed in the cerebellum, if attended by loss of sight, it was because of pressure upon the tubercula quadrigemina. If it were true that the tubercula quadrigemina were the nervous centre for that sense, there would be some reason in the supposition; but what of those cases of disease in the cerebellum attended by loss of sight, and in which there was no pressure upon this nervous centre?

As is the case, disease in the left side of the cerebellum may produce amaurosis of both eyes, or amaurosis of the right or of the left eye. So there is no connection, not the least general connection, between the part which is affected in the cerebellum and the eye that is to be affected.

Another point: there are many cases in which disease in the cerebellum, of very slight extent, occupying the back part of the organ, and in which there was no possibility of pressure because of the nature of the disease, it consisting only of softening or inflammation, has caused amaurosis. As regards amaurosis, some medical men have tried to explain it by saying that an effusion of serum into the ventricles of the brain occurs in connection with disease in the cerebellum, and that that is the cause of the disturbance of the sense of sight. It is an important feature in all cases of disease of the cerebellum that there will be considerable production of serum in the lateral ventricles of the brain. There is a fact to be considered in this connection, and that is, that the sinuses of the brain are pressed upon by disease in the cerebellum, and it may be to such an extent that the circulation is greatly changed in one half, or in both sides of the brain. As you know, pressure upon veins anywhere in the body will produce effusion of serum. It is natural to admit that there is such an occurrence in connection with disease in the cerebellum, and this is in harmony with several facts. Disease in the cerebellum, if it causes amaurosis, does so, in most cases, by alteration of the nutrition of the eye, or by producing an inhibitory action, which I consider the great cause of the cessation of the activity of any part.

What are the other symptoms which can show that the paralysis with which we have to deal depends upon disease in the cerebellum? There are two symptoms which are of frequent occurrence, besides the amaurosis. There is headache, chiefly in the back part of the head, although it may exist in other parts. It is a headache that is much more violent than any headache which we know of dependent upon brain disease.

There is vomiting, and this is also a frequent symptom. Now, if you take the views admitted in science, that contractions of muscles take place when there is disease in the brain, because of irritation of fibres which extend from that part diseased to the muscles, and so serve to produce voluntary movements, how can you explain the vomiting which occurs when there is disease of the cerebellum? There is no voluntary motor fibre connecting the cerebellum directly with the stomach. The cerebellum has never been imagined to be the nervous centre that produces movements of the muscular fibres of the diaphragm and the stomach, which muscular fibres act together in the production of vomiting. So vomiting, in this case, is a reflex symptom, as I believe it is in every case of disease of the brain. There is an irritation of certain fibres which is transmitted to cells at a distance (I do not mean to say where these cells are), and they manifest it by putting into action the walls of the stomach and muscular fibres of the diaphragm, and produce vomiting.

#### PECULIAR DISORDER OF MOVEMENT.

There are other symptoms of disease in the cerebellum which are interesting. One which has been the subject of a great deal of discussion is a peculiar disorder of movement: the patient seems like a drunken person. If he can walk at all, he walks as if intoxicated. It is not that peculiar disorder of movement seen in locomotor ataxy, when the patient, instead of throwing the limb directly forward as in health, will swing it one way or the other, and strike the ground with the heel first; but it is simply a disorder of movement such as is seen in a case of drunkenness. This symptom is sometimes very marked. Another feature is, that the patient cannot stand upon one foot while the eyes are closed. This symptom is also present in the other form of ataxy.

There is lack of power to balance the body in many cases of disease in the cerebellum; but you are not, therefore, to conclude from that, that the cerebellum is the nervous centre employed in maintaining the equilibrium in giving proper balance to the body. It has been said that the cerebellum is the nervous centres for muscular sense. Muscular sense has been said to be the guiding power of our movements, and that if it is lost it is natural that there is developed a condition of apparent drunkenness. It certainly is not owing to the existence in the cerebellum of a nervous centre which presides over the balancing of muscular action, that there is disorder of muscular movement when the cerebellum is the seat of disease. For there are many cases in which there has been destruction either of the whole or a great part of the cerebellum, without any trace of disorder of muscular movement. If the cerebellum were a nervous centre for muscular sense, or for balancing the muscular movements of the body, certainly when destroyed there would always be present disorder of those muscular movements.

DIARRHŒA DUE TO IMPURE SALT.—A few weeks ago a large number of patients in different departments of the General Hospital in Vienna were suddenly attacked with diarrhœa. A chemical examination revealed the fact that the outbreak was due to impurities in the salt used in cooking. This contained a large proportion of sulphate of magnesia. The diarrhœa disappeared as soon as a pure salt was substituted for the impure article.



## CLINICAL LECTURE.

By PROF. T. GAILLARD THOMAS, M.D.,

November 23d, 1877.

(Reported by P. BRYNBERG PORTER, M.D.)

I. A CASE OF ABDOMINAL PREGNANCY—REMOVAL OF FÆTUS BY ABDOMINAL INCISION—THE QUESTION OF REMOVING THE PLACENTA. II. PERI-UTERINE CELLULITIS—THE SIGNIFICANCE OF LACERATIONS OF THE OS UTERI—THE DANGERS OF THE UTERINE PROBE. III. POST-UTERINE FIBROID.

GENTLEMEN:—Four weeks ago to-day the negress whom we decided to be the subject of abdominal pregnancy was presented to you for the first time at the clinic, and one week ago, as it is hardly necessary for me to remind you, I gave you some account of the operation which I had performed upon her the day previous: cutting through the abdominal walls, removing the fœtus, and leaving the placenta *in situ*, after having passed a strong silver wire through its body, by which to remove it in case it should become detached. At the time I made my report to you, twenty-four hours after the operation, the patient, you will remember, was in excellent condition, and though by no means out of danger, her chances of recovery seemed quite as fair as we could possibly expect at so early a period after the operation. On the fourth day after the removal of the child, however, while I was temporarily absent from the city, the patient began to develop unfavorable symptoms, and when I reached the hospital I found her in a very alarming condition, the temperature having run up to  $103\frac{3}{4}$  degrees, and there being every indication of the development of septicæmia. I at once made up my mind that there was but one thing to be done, and having reopened a considerable portion of the abdominal wound, which, as I told you, had been closed with sutures, with the exception of about two inches, and in which I found union had already taken place by first intention, I withdrew quite a large quantity of exceedingly fetid fluid from the cavity. I then washed it out thoroughly with copious injections of salt water containing sufficient carbolic acid to give it a slight pungency to the taste, and finally allowed a considerable quantity of the liquid to remain in the cavity. All this occupied about half an hour, and during that short interval the temperature actually fell from  $103\frac{3}{4}$ ° to  $99\frac{1}{2}$ °; showing that the patient was not actually suffering from septicæmia, but that septic absorption (from the fetid fluid described) was already taking place; and this is usually the first step towards septicæmia. Since then, I am happy to report, the patient has been doing very well; but up to the last day or or two it has been necessary to repeat the antiseptic injection about every three hours, night and day, and one of the house-staff has remained constantly with her for this purpose. The guide for the frequency of the injections has been and is the thermometer, and whenever the temperature has been noticed to rise they have been repeated.

At present it is found necessary to use them only about four times a day, and to-day I learn that the temperature is  $99\frac{1}{2}$ °; the pulse 102. The placenta still remains in position, as we have been very careful not to disturb it in the least, and it has as yet shown no signs of coming away spontaneously. I confess that I am afraid to remove it, and I certainly shall not do so unless it should show a decided tendency to slough off. It is probable that if it were removed at the present time, so long after the operation, there

would be but little or no hemorrhage; but the condition of the patient would not thereby be improved in the slightest degree. On the contrary, the removal of the placenta would inevitably increase the risk of septicæmia by enlarging the area of surface for the absorption of septic material.

The patient is now quite as cheerful as she was the day when she first came here, her appetite is good, and she takes a considerable quantity of beefsteak, soft-boiled eggs, and other nourishing food; so that altogether her condition is so favorable that I think we can anticipate the happiest results in the case.

## PERI-UTERINE CELLULITIS.

The first patient whom I show you to-day is Mrs. Bridget F., a native of Ireland, and thirty-three years of age. She has been married twelve years, and has had three children, the youngest of whom is now eight years of age. In our usual manner I will proceed to question her, in order to draw out the history of her trouble. How long have you been sick, Mrs. F.? "Just a year." You had good health before that time? "Yes." How were you taken ill? "I was taken with a great pain." Very suddenly? "Yes." What was the cause of it? "I do not know, but think it was from cold." Where was the pain situated? "Down around here" (placing her hand upon the pelvic region). Were you so sick as to have to go to bed? "Yes." For how long? "About a week." Was it at the time of your monthly sickness that the pain came on? "Yes." Did the pain go away at the end of the week during which you were confined to bed? "It got a little better then, but I have had it ever since." Are there any special times when it is worse than at others? "Yes, always at the time of my monthly sickness, and also at night." Has your general health failed? "Not a great deal." Have you lost any flesh since you had the attack of which you speak? "I did lose a great deal for a time, but think I am gaining a little now." Have you any trouble in walking or standing? "I can walk pretty well, but it hurts me to stand." Is there anything else of which you complain? "No."

I have now succeeded in getting all the history that I desire in the case. Here is a patient who tells us that she was perfectly well up to one year ago, when she had a violent attack of hypogastric pain, at the time of the menstrual epoch, which confined her to bed for a week, and she has never been well since. At the end of a week she got up, and then for the first time, as she tells me, consulted a physician, who seems to have understood the character of the attack, since he told her to keep as quiet as possible, not to lift heavy weights, etc. The pain has been constant ever since, and it is usually worse when she lies down at night; while it is always greatly aggravated at the time of menstruation. She has also become considerably emaciated, though that condition is not so marked at present as it was some little time ago.

The physical examination was as follows: On passing my finger to the cervix, the patient lying upon the back, I found it was normal in size and position, though there was a slight laceration in it. As I have had occasion so frequently to remark, this little nicking of the cervix is the rule, and not the exception in women who have borne children; and I do not consider them of any consequence whatever. I do not wish you, however, to confound this with the more extensive lacerations of the neck of the uterus, which frequently give rise to the most serious results, and in connection with which I recognize to the fullest extent and most gratefully the value of the labors of

Dr. Emmet, who has so ably brought the subject to the attention of the profession. But Dr. Emmet does not consider these slight lacerations of any more consequence than I do, and I do protest against the practice of some meddlesome gynecologists of the present day, who do not appreciate the vast difference between the two sorts of injuries to the cervix, and who can never rest content until they have sewed up everything of the kind, however insignificant it may be. I have made this little digression simply for the purpose of putting you on your guard against laying more stress upon slight laceration of the cervix than it deserves.

When, now, I attempted to draw the cervix forward, I found that this was impossible, and, in fact, that the uterus was perfectly immovable in any direction. This condition of fixation was so marked that almost any medical student, however inexperienced I, would not have failed to recognize it. Now, a fixed uterus is an abnormal uterus; not necessarily diseased itself, but at all events indicating disease of some of the pelvic organs. On making conjoined manipulation, I found that in Douglas's cul-de-sac there was a large hard mass, compressing to no small extent the rectum posteriorly, and that in the broad ligament of the left side there was another similar mass; while nothing abnormal could be felt about the right broad ligament.

I did not carry the examination any further, because I felt perfectly satisfied as to my diagnosis from the sense of touch alone. If I had not, I might have placed the patient on the side and introduced the speculum; but I certainly would have considered it very unsafe to pass the delicate and flexible uterine probe, to say nothing of the large and unyielding sound. And just here I want to impress a point of great importance upon you. The careful passage of the probe in the hands of an experienced uterine surgeon is, as a rule, almost altogether unattended with risk; but that of the sound is by no means so harmless. The introduction of the probe and of the sound are most assuredly two very different procedures. When the first edition of my work on diseases of women was published, some of the German authorities criticised it very severely, because, as they claimed, I said the introduction of the uterine sound was unattended with danger, when they knew positively that it *was* attended with danger. The criticism was unjust, however, for I never really said anything of the kind. What I did say was, that the passage of the *probe* was unattended with danger when performed in a certain manner. I may illustrate this point by the somewhat analogous introduction of the sound into the male urethra. A skilful surgeon with a proper instrument may perform the operation without the slightest bad result; but if a rough instrument is passed in a rough manner, incalculable mischief may result. Let us suppose, now, a case in which there is retroflexion, and that the attending physician, without knowing at all the position of the uterus, attempts to carry a sound up in the normal curve of the organ. If he persists at all, he may do a great deal of injury, not only to the uterus, but to the bladder and intestines as well. But if the slender and flexible probe is used cautiously and skilfully, how different is the case! Take, for instance, the cases in the Woman's Hospital. A very large number of patients are treated there every year, and in every instance the probe is used in the examination, instead of the sound, unless there is some peculiar reason for resorting to the latter, because my colleagues all recognize, as well as I, the dangers which are to be apprehended in the use of the sound. As a consequence, we have no accidents due to this cause. Now, in the present instance, what do

the marked fixation of the uterus and the hard masses which we have found posterior to it and upon one side of it, signify? They are undoubtedly evidences of peri-uterine cellulitis, and consequently I would not venture to introduce even the probe here, for fear of lighting up fresh inflammatory trouble. This inflammation of the pelvic cellular tissue must have originally occurred at the time of the acute attack, which the patient has described to us, and, as a consequence, Douglas's cul-de-sac was completely filled up with a deposit of exuded lymph. But all the trouble did not end here, for this is one of those cases of progressive cellulitis in which a certain amount of fresh inflammation is set up at each menstrual period, in consequence of the congestion of the pelvic organs incident to that physiological epoch. At the present time the patient's hands are quite hot, and she tells us that not infrequently she has more or less fever.

Now, you can see the importance of this point which I wish to make in connection with the case before us. The lesson to be learned here is, always to find out as fully as possible, by means of the vaginal touch and conjoined manipulation, the condition and position of the uterus before passing either the probe or the sound. As I have already intimated, I never use the sound at all, unless there is something special to be gained by it; and I would emphatically warn you to be always careful to think before you resort either to it or the probe. I will venture to say that there is scarcely a gynecologist of extensive experience living who has not unwittingly produced abortion by the passage of one or the other of these instruments. Almost every one gets caught at some time, and finds to his horror that the sound or probe has passed four inches into a gravid uterus; the innocent little operation being followed by hemorrhage and the expulsion of the fœtus. Therefore, always proceed with the greatest caution in every instance. Only yesterday I saw at my office a case of great interest in this connection. A Canadian lady, who had been charged by the physician whom she had when in London some little time ago, to consult me in case she should have any uterine trouble in the future, came to seek advice, and told me that she thought she had a small polypus growing from the cervix uteri. On making an examination I found that this was really the case, and I had no difficulty in twisting the polypus off with a pair of forceps. The cervix uteri looked like a very inviting one into which to pass the uterine probe, and I would have done it if there had been any special reason for it. But, in the meantime, I had been questioning the patient in reference to her case, and she now presented to me a letter from her former physician in England, Mr. Knowsley Thornton, in which he stated that he had removed both ovaries and the entire body of the uterus, and particularly warned any one making a vaginal examination of the patient, not to attempt to introduce a probe or sound, as it would pass directly into the peritoneal cavity. It was one of those brilliant cases illustrating the triumphs of modern uterine surgery, which reflect so much credit not only upon the operator, but upon the whole profession as well.

But to return to our present patient. In a case of peri-uterine cellulitis, I would say, then, never pass the probe; and I cannot dwell with too much emphasis upon this point. But, you say, perhaps there is something to be learned by this means? Well, then, be cautious how you learn it. I see in my audience to-day a gentleman, in consultation with whom I have seen a patient in three several violent and dangerous attacks of pelvic inflammation, all of which



were set up by the simple manœuvre of probing the uterus. Once he passed the probe himself, but on the other two occasions it was done by other practitioners. The danger is particularly great in cases of progressive pelvic cellulitis, like the one now before us. I might pause here a moment to inquire, Are we perfectly certain of our diagnosis in this case? I know of no other condition whatever which could have originally produced, and can now fully explain, all the rational and physical signs of the case.

In the way of treatment there is, unfortunately, not a great deal to be done. First of all, however, the patient should be removed altogether from the field of her present labors, where there is always so much to be done by women in her condition of life, and fortunately there are plenty of institutions at the present day open to the poor, where such patients can enjoy perfect rest. Securing quiet is the most important element in the treatment of this case, and this is of special importance at the time of the monthly sickness. The patient should be confined strictly to bed from the time when ovulation first begins (several days before the appearance of the flow), which is indicated to her by the increased pain and sense of weight incident to the congestion of the pelvic organs, until menstruation is completely over. In addition, she ought also to abstain entirely from the marital embrace, and this will be one of the advantages to be derived from a residence in a hospital. But what medicines are to be given her? you may inquire. I do not know of any drug or drugs that will cause the disappearance of the inflammatory products here present, or put a stop to the progressive cellulitis, or else I should have mentioned them first. No doubt quite a number of you would like to suggest "a mild course of mercury;" but I have no faith whatever in the efficacy of any course of mercury. Quite as many more would doubtless suggest the prolonged use of the iodide of potassium; but such a course of medication would only derange the digestion, impoverish the blood, and impair the general health of our patient, without accomplishing anything at all in the way of the removal of her trouble.

There is one point, however, which should receive our most careful attention, and that is the constipation which almost invariably marks these cases of peri-uterine cellulitis.

The pressure of these phlegmonous masses in Douglas's cul-de-sac, and the presence of inflammatory bands of adhesion, not infrequently cause fecal impactions which greatly aggravate the severity of the condition, and should always be avoided by the strictest care in regard to the patient's bowels. In addition, she should have the most nourishing food, and such tonics as will improve the condition of her blood and build up her whole system. In a more acute case than the present one, in which, you will remember, the patient has been suffering for a year, I would recommend the systematic use of counter-irritation; but I do not believe it would be of service here. Opium ought by all means to be avoided, if its use can possibly be dispensed with, on account of the danger of the patient's becoming an opium-eater in consequence; which has been noted by quite a number of observers to be a not infrequent result in these cases of chronic cellulitis.

#### POST-UTERINE FIBROID.

Mrs. Sarah S., thirty years of age, and a native of Ireland. She has been married twelve years and has had five children (the last four years ago), but no miscarriages. How long have you been sick, Mrs.

S.? "Four years." Were you quite well up to four years ago? "Perfectly." What do you complain of? "Pain at times." Where is it situated? "Here" (placing her hand upon the pelvic region). Are you regular in your monthly periods? "No." In what way are you irregular? "I have my sickness too often, and lose too much blood when it is on me." Have you any pain in your back? "Yes." Is it constant? "No, I do not feel it all the time." Are your bowels regular? "They are always constipated." Do you have any trouble with your bladder? "I feel a very frequent desire to pass water." Do you suffer at all from the whites? "Yes." When your monthly sickness comes on, do you lose a great deal too much blood? "No, not a great deal more than I ought to do." Does it hurt you to stand? "It makes me feel very tired."

Now, gentlemen, you have heard the history as given by the patient. She looks healthy, you will observe, except being a little pale, and I will proceed to tell you what I found in making a physical examination. The patient being placed on her back, I passed my finger up to the os uteri, when the first thing that I noticed was a slight laceration, such as we found in the last case and such as is so frequently met with. It is a little more marked than in the last case, but still by no means sufficiently extensive to give rise to any trouble. Unlike the last case, the cervix was perfectly movable, but still I found a mass filling up the whole post-uterine space. This mass was very hard and much larger than the uterus ought to be, almost closing up the rectum, and yet I could not feel the body of the uterus in its normal position. Now, I said to myself, here is a case of retroflexion with hyperplasia of the uterus, and this was the picture that mapped itself out in my mind. I was not able to decide positively, however, without the introduction of the probe, on account of the unusual rigidity of the abdominal walls in this case, which interfered with the success of any examination by conjoined manipulation. The patient was accordingly placed upon her side and the speculum having been introduced and held by an assistant, I bent the probe to what I thought was about the right curve, and attempted to pass it downward. Finding that this was impossible, I then attempted to pass it upward in the normal direction, but it would not enter the body of the uterus in this way either. So I withdrew it altogether, and making it almost straight, I again introduced it into the cervix, and this time passed it up to the extent of four inches very easily, which was not at all the picture which I had imagined. The reason that I had not felt it in front, was that it was so much farther back from the abdominal walls than usual. A careful examination revealed an immensely large mass blocking up the rectum, and this I found to be a growth attached to the posterior wall of the uterus. But might not this be a mass of inflammatory lymph, as in the last case? No, because when you find a hard mass in Douglas's cul-de-sac, and are able to move it, it is not a deposit of lymph. This is not an absolute rule, but the exceptions to it are exceedingly rare. The lymph, when present, is firmly attached to the walls of the pelvis, and in the last case I could not only not move that, but could not move the uterus either. In the present instance I used the sound to rock the uterus backward and forward in order to ascertain whether the mass, whatever it was, was attached to the uterus, and I found that it undoubtedly was. But, you say, is it not dangerous to employ the sound? Yes, there is certainly some risk in so doing, but I decided that the benefit to be derived from its use was



quite sufficient to justify the latter. Even the simplest procedures in surgery are attended by a certain amount of danger. Many children have died from having their gums lanced, and I think it is Sir Henry Thompson who has noted a number of deaths merely from the passing of the catheter. The size and character of the growth were further determined by introducing the finger into the rectum.

What is the prognosis here? When I speak of prognosis, I do so in the real meaning of the word, which does not require us to tell positively what will be the whole future history of the case. What I understand by the term is, the most logical deductions that you are able to make from ascertained facts in medical literature and your own personal experience. This is a benign tumor, and, as a rule, these hard, round fibroids will permit a woman to go to a good old age. Perhaps I may be mistaken here, and the patient may possibly come back in the course of a year with the tumor as large as your head; but I think this is altogether improbable.

In the treatment there are three principal points to be attended to. The first is to remove the pressure from the rectum by changing the position of the tumor, and this is to be done by throwing the uterus over on to the bladder and thus lifting the mass out of the true pelvis. The pain from which the patient suffers is greatly increased by the pressure of hard feces in the rectum, inducing a neuralgic condition of the fibroid. For a time the uterus should be thus carried forward two or three times a week, the patient being in the knee-chest position, and then after a little while a Cutter's pessary may be introduced, which will keep it permanently in a somewhat anteverted condition. Should any trouble be created thereby, it may easily be obviated by leaving the pessary out for a time. Secondly, the patient should take about twenty drops of Squibb's fluid extract of ergot night and morning, in order to keep up a constant impairment of the circulation of the uterus. If we had an interstitial fibroid to deal with, we might expect the ergot to act by causing contractions of the uterine fibres; but here we have to depend on the general property which the drug has been shown to possess by Brown-Séquard and many other observers, of diminishing the calibre of blood-vessels. In the third place, we must improve the general condition of the patient. I do not look upon this affection as showing an exuberance of health at all, but as an evidence that her health is depreciated; and our efforts are therefore to be directed towards improving the nutrition and building up the strength.

I have still two points to speak of in connection with this case, and the first is this: Suppose the patient should begin to bleed freely. At present there is not much hemorrhage, but a tumor of this kind is apt to cause flooding by keeping up a continual congestion of the uterus, and the use of the curette upon its lining mucous membrane will be found to control the menorrhagia and often the metrorrhagia resulting from it more effectually than any drug. By this means the condition of the mucous membrane is altered, and in the intervals we thus help the patient to recover the ground lost at the time of her menstrual periods.

Finally, I wish to caution you against giving iron and quinine in cases like this. It is the commonest thing in the world to see such patients taking these two drugs in large quantities, because their attending physicians are desirous of improving and increasing the blood and stimulating the appetite; but from my own experience I can declare positively that they con-

stitute the best possible prescription to excite hemorrhage, and consequently are productive of much harm. It is like giving alcoholic stimulants to a man who is suffering from delirium tremens. It may ward off trouble temporarily, but in the end it only makes his condition a great deal worse. Now our patient theoretically really needs both these remedies, but I feel sure that they would practically only do her further injury.

## PERITYPHLITIS, AND ITS TREATMENT.

By LEONARD WEBER, M.D.,

NEW YORK.

(Read before the Surgical Section of the New York Academy of Medicine, December 11, 1877.)

In addressing you upon the subject of perityphlitic abscess, Mr. President, I have reference in particular to abscess resulting from perforation of the appendix vermiformis. Perityphlitis in a general sense, of cæcum or any part of colon, occurs frequently, and may go on to resolution quite as often as to the formation of abscess; and the latter may and often does perforate the bowel or bladder, and the patient will get well without any surgical-interference. I have seen a number of such cases before I ever operated for abscess of the vermiform appendix, and, in my opinion they may be considered, apart from this special form of perityphlitis, due to perforation of the appendix vermiformis.

In those cases the characteristic tumor does not grow up from the bottom of the iliac fossa, is felt more superficially and higher up along the cæcum or colon, not unfrequently fluctuates, and sometimes disappears over night, being evacuated by the bowel or bladder.

For the literature on the subject, I refer you to my first paper, published in the *N. Y. Med. Journ.* of August, 1871, to the well-known papers by other American authors, and to the Encyclopædias of Virchow and Ziemssen.

For the formation of an abscess after perforation of the vermiform appendix, we have to depend upon a sufficient amount of adhesive inflammation around the ulcerated spot, in order to prevent the escape of fluid into the peritoneal cavity before perforation has actually taken place. When no adhesions have been built up prior to the perforation of the ulcer, general peritonitis will supervene, with early fatal termination. I have made the autopsy of two cases in which there was perforation with no attempt at adhesive inflammation, and general peritonitis was found.

Permit me to give you briefly the history of three cases I operated on since 1874, and to invite your discussion on the mode of proceeding which experience has taught me to adopt.

H. W.—, 30 years of age, merchant, a robust and healthy man, who had never before had any trouble with his bowels, came to my office on June 3, 1874, complaining of pain in his abdomen. Ordered purgative. He called again on the 7th, 8th, and 9th of June. Bowels had been relieved, but pains still present, and more in the right lower part of abdomen. Ordered an opiate, strict diet, and rest. June 10th I saw him at his house, found him with fever, and pain in the ileo-cæcal region well marked. No tumor could be felt, the less so as palpation was difficult on account of the great thickness of abdominal parietes and existing tympanites. From this day on, all the usual symptoms of perityphlitic abscess were present, although it was not until the end of the fifth day from my first visit that I was able to make out



the characteristic tumor in the ileo-caecal region; nor could I at any time feel any part of tumor per rectum. The patient having been kept under the influence of opium, and the tumor steadily increasing in size, I concluded to operate on the ninth day. The tympanitis, which was unusually troublesome and greatly interfered with the patient's respiration and sleep, had had no small share in urging me to operate early.

The operation was done by a four and a half inch incision above and parallel to Poupart's ligament, narrowing down to an inch and a half at the fascia transversalis. The exploring needle having been thrust into the tumor, showed the presence of pus, and the abscess was laid open. From four to six ounces of fetid pus and gas, mixed with small portions of sloughy fibrous tissue, were evacuated, the cavity was washed out with carbolyzed water, the edges of wound carefully cleansed and united by harelip, and interrupted sutures and a drainage-tube inserted. The further treatment of wound was carried out on the antiseptic plan; the patient progressed favorably, and on the twelfth day after operation a small and hard faecal lump was discharged. On the fifteenth day an attack of traumatic erysipelas set in, spreading from the wound upwards as far as the short ribs and back over the hip as far as the spine, reaching posteriorly and anteriorly as far as the median line. The accompanying fever was very high, marking sometimes 104 degrees in the axilla, and the pain and discomfort to the patient were considerable. The affected parts, including wound, were freely painted with tar four times daily, and teaspoonful doses of tinct. ferr. mur. exhibited every four hours. The erysipelas spread no further, and entirely left the patient five days after the seizure. The wound, which presented an oedematous and inflamed appearance, and discharged but little yellowish liquid during the attack, suppurred more freely again afterwards, and healed without further disturbance, with a broad and firm cicatrix, on the thirtieth day after operation. The pins introduced to hold the edges of the wound well together caused some sloughing, although they were removed at the end of the second day, and their suppurating tracks took almost longer to heal than the wound itself. About two months after operation the centre of cicatrix was nearly an inch in breadth, and protruded slightly when the patient made efforts to cough. He was ordered to wear a truss to prevent the formation of hernia, and wore it for a year, or more, I believe.

A. Z—, 32 years of age; merchant; a tall and thin man, with a good family history; had always been in fair health until 1873, when he began to suffer from occasional attacks of colic, which were relieved by purgatives, anodynes, and rest in bed. Similar attacks he had also in 1874, combined with troublesome dyspeptic symptoms. In the night of March 28, 1875, I was sent for, and found him suffering severely from an acute attack of pain in the abdomen, more to the right lower side. For some time before this sudden seizure he had been well and in daily attendance upon his business. He presented all the symptoms of incipient peritonitis, and was put under the influence of opium at once. On the fifth day, the tympanitis having yielded, the bowels were evacuated by an enema. I could now feel the tumor in the ileo-caecal region, and discovering fluctuation, although deep-seated, on the evening of the sixth day, I operated at noon of the seventh, in precisely the same manner as in the foregoing case, reaching the cavity of the abscess without difficulty, and evacuating about six ounces of fetid pus and gas. Although a good deal of sloughy connective tissue was discharged at and after the

operation, no foreign body was seen. The wound was treated in the same manner as above, and everything went well for some time, although the patient was excessively weak, requiring constant attendance and careful nursing. In the third week after operation—the wound still suppurating freely—another abscess formed in the neighborhood and a little above the first one, with eventual perforation of the bowel and discharge of pus per rectum. In the sixth week additional inflammation occurred, and an abscess formed close to the left lower side of the first, which perforated the bladder, with free discharge of pus per urethram for about a week. In spite of these secondary abscesses and the continued suppuration from the wound, the patient held out under good nourishment and the generous exhibition of stimulants, and was restored to health three months after operation. The centre of cicatrix was broad and thin, and required the support of a truss. As soon as he was able to be about, I sent him to the mountains of Virginia, where he spent the month of August, using the baths at Hot Springs. He regained his strength, and had no trouble with his bowels afterwards, except a slight tendency to constipation.

E. R—, 17 years of age, clerk, a well built young man, had no serious illness previously; was taken on February 15, 1877, with symptoms of acute peritonitis, which soon became localized in the ileo-caecal region. Ordered leeches, poultices, and opium. On the 17th less pain in abdomen and generally much better. On the 19th tumefaction more distinct; 20th, abscess pretty well defined; 21st, no change locally; 22d, tympanitis increasing. On the 23d, at 4 p.m., operation by a four-inch incision, narrowing down to an inch and a half at the fascia transversalis, and evacuation of about five ounces of pus and gas. No foreign body on this or any subsequent day. Very little fever, and voluntary stools on the 25th; wound looks well and discharges copiously. Sutures removed on the 26th, and I will here mention that they were of fine silver wire, closely laid, embracing all the tissues, and that no pins were used for lateral support. I was much better satisfied with the appearance of the wound closed in this manner than in the previous cases in which pins were employed. On March 12th the wound had nearly closed, and the patient was well except occasional attacks of colic in the left lower part of abdomen. He very soon got over these, and I did not see him again until about three months after operation, when he presented himself at my office on account of some protrusion of the centre of cicatrix. He was ordered a suitable truss for support. Patients Nos. 2 and 3 have laid their trusses aside, feeling quite comfortable without them. The cicatrices appear to be quite firm now.

When we let these cases and others of abscess of the vermiform appendix that have been published pass in review, we find that, whether they set in abruptly or gradually, with peritonitis and tympanitis more or less severe, they are always marked by considerable pain on pressure in the ileo-caecal region. There is only one symptom which may be called pathognomonic, a tumor growing from the bottom of the iliac fossa and above Poupart's ligament up towards the integuments. This gradually growing tumor can generally be felt by palpation; rarely can its lower circumference be made out by exploring per rectum. Seldom can we feel distinct fluctuation, and percussion generally yields a muffled tympanitic sound. The abscess containing always pus and gas, the percussion-sound over it cannot be entirely dull.

When shall we operate? The formation of the ab-

cess begins with the adhesive inflammation set up by the ulceration of the vermiform appendix, and experience teaches that, counting from the commencement of peritonitis, at least seven days are required to accomplish agglutinations firm enough for surgical purposes, between the fibroplastic walls of the abscess and the parietal peritoneum. Cases Nos. 2 and 3 go to prove that we can successfully operate on the eighth day, and, other things being equal, I see no reason why we should wait any longer than the second week. We have to deal with an abscess containing fetid pus which we know to be of an aggressive nature, and the sooner we have it evacuated the better for our patient. However, there are a number of cases on record in which the operation has been deferred to the end of the second week and even longer, and the patients have made a good recovery. Sometimes, the general condition of the patient may be such as to induce the surgeon to postpone the operation somewhat beyond the time indicated by the local condition. How long shall the incision be, and where had it best be made? In none of my cases has the cut through skin and fascia been less than four inches in length, narrowing down to two inches at the fascia transversalis. The opening in the wall of the abscess was an inch to an inch and a half long, in order to give me all the facility I wanted for washing out and disinfecting its cavity. You are aware that in three of the cases a tendency to hernia was developed soon after cicatrization, and a truss was required for support for some months, but the patients could soon get along without it. You recollect that the late Dr. Gurdon Buck, in a paper read before the New York Academy of Medicine, July, 1875, communicated two cases of perityphlitic abscess successfully operated upon by him. The plan of operation adopted by him was, first to puncture with a fine trocar, and then make an incision along the needle into the abscess sufficiently large to allow the introduction of the finger into it. It answered the purpose, and the patients got well with a sound cicatrix and no tendency to hernia. Although it has been shown that a long cicatrix must not lead to bulging at the centre, it is desirable to avoid such unpleasant consequences by making the incision no longer than is absolutely necessary, *i. e.* from three to four inches. Dr. Buck's method has one serious defect: the surgeon is obliged to cut in the dark through thick layers of muscle and fascia, and after opening the abscess, cannot wash out and drain its cavity as well as it ought to be done. Moreover, when we close the wound with many and fine sutures as accurately as possible—leaving out all pins for lateral support—we shall get the greater part of it to unite by the first intention, and have ultimately a firm and good cicatrix. And if we instruct the patient to put on a suitable truss as soon as he leaves the bed, and wear it for some months, we shall have guarded against all possible chances of hernia developing at the centre of cicatrix.

In making the incision I go straight for the abscess and operate in the following manner: Putting the thumb of the left hand in the inguinal fold close to Poupart's ligament, I lay the four fingers well upon the upper circumference of abscess, making gentle but firm pressure downward. Midway between thumb and fingers thus placed in position, I divide skin, fascia, and the fibres of the external and internal oblique muscles, enter the exploring needle at a point where I have felt certain that I shall get pus, and getting it, carry the knife through the remaining tissues into the abscess by a single cut. This is by no means a summary proceeding when you have watched

your case well from the beginning and become familiar with every feature of it, when you have marked the gradual growth of the abscess, and by repeated examination expelled from your mind all doubts about the presence of pus in a locality where you can but seldom get well-marked fluctuation.

Immediately after operation I wash out the cavity of the abscess with carbolized water, and twice a day thereafter, until the discharge has lost all its fetid odor, and the wound becomes too small for the further introduction of a drainage-tube. Hancock's operation for abscess of the vermiform appendix has not originated in this country, it is true, but Willard Parker has given us a formula for its proper and timely performance, and by careful study it has become a sound and useful mode of surgical practice.

## TREATMENT OF DIPHTHERIA BY TURPENTINE INHALATIONS.

By C. EDEL, M.D.,

NEW YORK.

BEFORE I enter upon the mode of treatment of diphtheria, it may not be inappropriate to give, in a few words, my opinion concerning the nature of the disease.

I regard it, in the majority of cases, as a local infection from the beginning, affecting the mucous membrane of the nose, pharynx, and larynx, the fatal termination of the disease being brought about by pyæmia. The latter may be either primary in cases where the poison has been absorbed by the capillaries of the lungs or the mucous membranes (and these frequently become fatal after a short duration, even without the formation of membranes); or the pyæmia may be secondary to the formation of membranes, and the poison is then taken into the system in the usual manner.

But we must distinguish this pyæmic fever from the reactive fever, common to all cases of diphtheria, and which I think is only an effort on the part of nature to eliminate the obnoxious substance.

The character of the disease has a close resemblance to the gangræna nosocomialis. If we have under observation a surgical patient, we may be certain about the favorable conditions of his wound as long as his temperature does not suddenly rise. When the latter occurs, all practitioners are aware that we must be upon our guard. It is not necessary that we find the wound in a bad condition immediately, but we are sure that this will follow after a short time, if the wound is not properly treated by disinfectants. If, however, this course of treatment is pursued, the temperature will soon become normal. The cases of secondary pyæmia in gangræna nosocomialis are relatively rare, since a more proper management of the wounds has been adopted, but they occasionally occur, and prove fatal in spite of the greatest care.

The object of my treatment is not to cure the primary pyæmic infection of the "malignant cases," or to cure the "secondary pyæmia" after the formation of membranes, but to prevent the absorption of the poison, the presence of which is indicated by the reactive fever.

Since the treatment of diphtheria by steam inhalations gives relatively the best results, I resolved to combine this method directly with a local disinfectant. For this purpose I use Tiemann's steam-atomizer in the following manner: I have the boiler half filled with water, add about fifteen drops of the oil of tur-



mentine before each inhalation, and then close it. As soon as the vapor escapes, the patient is placed at a distance of three inches from the mouthpiece of the instrument. This distance I found more convenient than to apply the mouth directly to the mouthpiece, since the greater heat might prove injurious and the force of the stream would frequently make it inapplicable to children. Formerly I have used the turpentine with some water in the medicine cup, but this arrangement often fails, and I find it quite sufficient to put the turpentine into the boiler directly.

The inhalations are made every hour for about ten minutes, day and night.

This treatment I have applied in quite a number of cases, and thus far with the most favorable results. Recent cases were cured in twelve hours, *i. e.*, the temperature was reduced and the sores in the throat were clean; in older cases it took sometimes twenty-four hours before the temperature became normal, and about forty-eight hours before the pharynx appeared perfectly clear.

I shall briefly relate a few of the more characteristic cases.

I. December 2d.—W. W.—, a boy 6 years of age. When I first saw the patient he had been treated for three days with chlorate of potash locally, and tincture of iron internally. On inspection, the tonsils and pharynx were found to be covered by diphtheritic membranes. The boy complained of pain in the region of the sternum; his breathing was superficial, and he had very marked dyspnoea; his voice, however, was pretty clear. I continued the treatment for eight hours, but seeing that the infiltration had rather increased in extent, I resorted to the above-described inhalations. They were continued during the night, and after twelve hours the patient expectorated a piece of membrane five and a half inches in length and one inch in breadth, which had undoubtedly occupied the whole extent of the trachea; at the same time the pharynx was nearly clean. The pain, of which the boy had complained, ceased immediately after the membrane had been expectorated. The microscopical examination revealed, besides some epithelial cells, the presence of fibrine, small, round cells, and the peculiar organisms called micrococci.

II. November 29th.—B. S.—, a girl 3 years old. In this case I performed tracheotomy half an hour after I was called, on account of the great dyspnoea. There were no membranes in the throat, and I regarded the case as one of croup. A few hours after the operation the tube could hardly be cleaned from very tough membranes plugging the inner opening. Next morning diphtheritic membranes were seen in the pharynx. I ordered at once the inhalations, but, of course, in this case through the tracheotomy tube. The inner tube was taken out and the steam passed through the opening in the superior curvature of the outer tube into larynx and pharynx. After having used the inhalations for twelve hours, the pharynx was clear, and some relatively thin matter was discharged through the tube. The child recovered entirely, with the exception of a paralysis of the vocal cords, which will probably be cured by faradization.

III. November 23d.—M. R.—, a woman 40 years old, in whom the infiltration extended almost over the whole tongue and the greater part of the pharynx; after twenty-four hours the temperature normal, and about twenty-four hours later the mouth and pharynx clean.

IV. December 22d.—E. M.—, 15 years old. Pharynx partly infiltrated; cured in twelve hours.

V. December 31st.—C. E.—, 5 years of age; mem-

branes on both tonsils. Inhalations begun on the third day; one tonsil clear after twelve hours, but it took about two days before the membranes on the other tonsil disappeared, the parents having neglected to use the atomizer during the night.

## Progress of Medical Science.

URETHRITIS CAUSED BY THE ADMINISTRATION OF ARSENIC.—M. Saint-Philippe publishes in the *Gazette Médicale de Bordeaux* two cases in which the internal administration of arsenic was followed by urethritis. The first was a man of forty, suffering from malarial fever, for which arsenic was prescribed. He had, however, taken but four milligrammes of the remedy when he exhibited all the signs of poisoning. The following day he was attacked by a urethritis, which showed itself in a classical manner, at the same time he positively affirmed that he had not been exposed for more than two months previously. The other patient was put upon arsenic for some skin trouble, but owing to a mistake he took double the dose ordered, so that at the end of eight days he had taken sixteen milligrammes. Symptoms of poisoning now showed themselves, and at the same time the commencement of a well-marked urethritis, which yielded to the usual treatment in fifteen days. Here again exposure was denied for a long time previously, and taken in conjunction with the foregoing case, M. Saint-Philippe was forced to admit an arsenical urethritis, nor does he deem it illogical to suppose that arsenic, while being eliminated with the urine, may produce effects similar to those produced in the digestive tract and on the skin, where it is also eliminated. As, however, this is a toxic rather than a physiological irritation, the poisonous, instead of the simple therapeutic action of the drug, is necessary for its production. This is why it is so rarely met with in practice. This form of urethritis resembles that caused by certain substances known to have a very marked irritant action on the genito-urinary mucous membrane, such as cantharides, certain balsams, and even beer and alcohol in excess.—*Journal de Médecine*, November.

AN EASY, SURE, AND RAPID METHOD OF TREATING PARALYSIS OF THE FACIAL NERVE.—Dr. J. Mascarel claims great success for the following method of treating rheumatic paralysis of the facial nerve: From the first day he introduces a platinum needle a centimetre, or a centimetre and a half, in the direction of the stylo-mastoid foramen, toward the exit of the facial nerve from the cranium. A second platinum needle is placed horizontally in front of the orbit on the paralyzed side, in the superior fibres of the orbicularis palpebrarum; the needles are then connected with the poles of a battery of the desired intensity, and an interrupted current passed during twelve, eighteen, or twenty minutes. It is needless to say that very violent contractions are caused by this plan, almost convulsive in the orbicularis palpebrarum, and sometimes the eyelids are closed at the first sitting. The second day this operation is repeated with the palpebral needle below the eye. The third, fourth, fifth, and sixth days the facial needle is successively introduced into those muscles of the face which prove most refractory; the other needle is always kept near the stylo-mastoid foramen. After the seventh or eighth day of this treatment the paralysis has disappeared for ever in a dozen successive cases.—*Le Bordeaux Médical*, Sept. 18, 1877.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE EFFECTS OF SECTION OF THE SPINAL CORD UPON ANIMAL TEMPERATURE.

SOME time since the sum of five hundred dollars was granted to Professor H. C. Wood, Jr., of Philadelphia, by the Smithsonian Institute, to enable him to prosecute with thoroughness and success a series of experiments relative to the effects of artificial lesions of the various parts of the nervous system upon the evolution and production of animal heat; the results of the experiments to be published in the Contributions of the Smithsonian Institute.

Through the kindness of Dr. Wood we are enabled to lay before the medical profession his results, so far as concerns the effects of the *section of the cord* upon animal heat.

As is well known, experiments of much the same nature as those which we are about to describe were instituted in 1837 by Sir Benjamin Brodie, and later by Bernard, Schiff, Naunyn, and Quinke, Rosenthal, and Binz. According to these authorities it would seem that if the spinal cord of a rabbit be cut in the lower cervical region (the air of the room being lower than the temperature of the animal's body), the animal's temperature at once falls so that at the moment of death its heat is below normal. If, however, the external temperature be high, and the animal be wrapped in raw cotton, the fall of temperature is succeeded by a rise, so that the animal dies in a state of intense fever. The question naturally arose, of course, as to whether the subsequent rise of temperature was really due to the division of the cord, or was only a direct result of the higher external heat to which the animal was exposed. To settle this point a crucial experiment was undertaken by Naunyn and Quinke, which seemed to prove beyond a doubt that the rise of temperature was to some extent certainly dependent upon the operation.

In conducting his researches, Dr. Wood has con-

finied himself exclusively to experiments upon the dog, other commonly employed animals being too small for the performance of delicate experiments upon the brain and nerves. A wooden box was constructed, open at the top, and about three feet square; also two metallic boxes, the larger of them also open at the top, and three inches smaller each way than the wooden box; the other about three inches smaller each way than the first, and having its top-piece perforated with three holes—a large hole in the centre, and, on each side of this, smaller apertures, into which gutta-percha tubes could be screwed. The larger metallic box was then placed inside of the wooden chest, and the interstices surrounding it carefully and tightly packed with sawdust. Water enough was poured into it—*i. e.*, the larger metal box—completely to surround the smaller metal box when placed inside of it. After cutting its cord, the dog was then placed within the innermost box, the gutta-percha tubes were screwed into place, and a closely-fitting lid to the whole apparatus so adjusted as to cut off both the dog and the water surrounding the vessel which held it from the outer air of the room. A suction-pump was attached to the end of one of the gutta-percha tubes (the end of the other tube being left patulous), so that air might be drawn through the metal box which held the animal. A cut-off from the tube of exit was so arranged that specimens of air could be received into it, and analyzed for heat by a thermometer, and for moisture by a calcium tube. The difference in the number of heat-units existing in the air, after its passage through the box, and in the water surrounding the box which held the dog whose cord was cut, was then estimated by means of the following formula:  $Q = w \times t \times \text{sp. h.}$ ;  $Q$  = heat-units;  $w$  = weight of air or water;  $t$  = rise of temperature of air or water; and  $\text{sp. h.}$  = specific heat.

The bulk of the air was reduced to the bulk of air at 32°. This was weighed and the specific heat obtained. After a number of painstaking and laborious experiments, Professor Wood has been able to reach the following conclusions, *viz.*: *At a low external temperature, after section of the cord, there is increased evolution with diminished production of heat; at a high external temperature, both the production and evolution of heat are diminished. After section of the cord the animal dies in winter of cold, and in summer lives much longer on account of the high external heat.* It will be at once noted that this fact has a very important application to narcotic poisoning, to collapse, as seen, after exhaustion by heat, etc., and to thermic fever; the hot bath being the best treatment for collapse and narcotic poison, and the cold bath for thermic fever. [Collapse from heat and thermic fever are usually confounded. In collapse the internal temperature is below normal, while in thermic fever it is above.]

Professor Wood has also discovered the fact that the instant fall of temperature, after section of the



cords, is due to *vaso-motor paralysis, producing paralysis of the arterioles at the surface, thus obliterating the superficial cold layer of the body, and removing the only barrier to the animal's internal heat.* The Doctor has thus shown that *temperature is no guide to the amount of heat given off in such cases, and that fever simply reduces itself to a question of the difference in the relation of the heat-producing and heat-evolving powers; that the heat-evolving power is no longer compensatory to the heat-producing when the cord is cut.*

The experiments of Owsjannikow, which located the governing vaso-motor centre of the brain in a space whose upper boundary is one or two millimetres below the corpora quadrigemina, and whose lower boundary is from four to five millimetres above the point of the calamus scriptorius (*Berichte*, etc.; Bd. XXIII.), have received full confirmation at Dr. Wood's hands.

#### PREVENTIVE MEDICINE IN ORDINARY MEDICAL PRACTICE.

DR. RANSOME'S able address on State Medicine, published in the *British Medical Journal* for August 18th, must be read in order that the sequel on "Preventive Medicine in Ordinary Medical Practice," delivered by Dr. Ogle, at the recent meeting of the British Medical Association, may be appreciated at its full value. It will be remembered that in his final paragraph Dr. Ransome invokes supplementary aid from voluntary sanitary associations. While conceding the feasibility of forming such associations, not only in large towns, but in every locality, Dr. Ogle places upon the medical profession itself the responsibility of a deficient public opinion on medical and sanitary questions, and argues that, as preventive medicine is ignored in ordinary medical practice, legislative bodies very naturally ignore the profession when they come to frame laws to prevent the generation and spread of diseases. To establish this position, Dr. Ogle reviews the existing relations between patient and doctor, and concludes that, so far from being in harmony with the requirements of modern medical theory, they are nearly the same as they were when medicine meant physic—that is to say, the physician's claims to remuneration still continue to be based upon the quantity of medicine supplied, and upon material data respecting the number of visits, etc. As such claims—payment per bottle or per visit—take no account of enlightened methods of cure, the public cannot be expected to be wiser than physicians themselves, and to appreciate at their true value curative measures of a different kind. So long, argues Dr. Ogle, as the prevention of disease is ignored in the remuneration demanded for medical services, so long the public will conclude that prevention is not considered by physicians as a part of their work, and the influence of such self-devoted men as Anstie will be lost upon public opinion. As the first step towards realizing Dr. Ran-

some's hopes of more enlightened sanitary legislation, therefore, Dr. Ogle argues that the relations of physicians to the public must be readjusted upon a preventive basis, and draws up a plan of readjustment, which is very simple, although, unfortunately, not exactly practicable in the present state of public opinion. First, the family physician is to stand in the relation of health officer to families employing him, as well as in that of medical attendant in times of sickness, a certain sum per annum to be paid for all ordinary work, prevention included. Secondly, he is to receive supplementary fees for extraordinary visits; the medicines, whenever possible, to be supplied by druggists, or at least to be paid for separately, not as a part of the physician's duties. The stipend per annum, by which the physician is constituted health officer of the family, is to be left to a private agreement between him and his client.

Dr. Ogle states, in concluding his remarks on this aspect of the subject, that the arrangement has been tried and proved practicable and satisfactory, although the where and when of such experiments are not designated, nor are any sufficient details given. Of course, the distinctions between ordinary services and special visits must be sharply made in such arrangements, as ceaseless dispute and litigation must necessarily grow out of any ambiguity, however trifling.

There is no doubt that the work of sanitary police, of boards of health, etc., would be exceedingly simplified by the general adoption of Dr. Ogle's plan, which includes specifications for forming co-operative medical and sanitary societies in every town and village, by way of applying preventive measures to such as cannot afford a per annum stipend or even moderate fees for special services, with dispensaries for supplying medicines, hospitals, convalescent homes, and a fund for procuring expensive instruments that are only wanted occasionally. Organizations of this kind would, Dr. Ogle argues, not only secure the introduction of the newest modes of treatment in country towns and villages, but would also be instrumental in forming an enlightened public opinion upon questions of preventive medicine, and in influencing essential improvements in sanitary legislation.

Whatever may be the case in Great Britain, public sentiment in the United States is not likely for many years to become sufficiently enlightened to admit of a readjustment, upon a preventive basis, of the relations between physician and patient, although the practice of paying the medical attendant a yearly stipend has been adopted by some of our wealthy families. But, as concerns the question of gratuitous services, the idea of a co-operative association in each town may possibly furnish the practical solution of a very knotty problem—one in which the dispensaries and pauper hospitals of our large cities had their origin, but which still troubles the average country practitioner. For example, a co-operative medical and sanitary as-

sociation is practicable in any town having a thousand or more inhabitants, and by means of it the causes of disease among the poorer classes could be reduced to a minimum, thus preventing local outbreaks of fever, diphtheria, etc., etc., and relieving the town from the payment of druggists' bills and fees for medical attendance, as well as the physician from calls for gratuitous service.

#### MEDICAL CERTIFICATES IN THE DAILY NEWSPAPERS.

In a recent issue of a daily paper of this city still appear the advertisements of the Apollinaris water, with the certificates of prominent medical men attached. It is difficult to understand why this is so in the face of rumors that the names of the majority, if not of all, the medical gentlemen have been withdrawn. If such action has really been taken, it either must have been in a very feeble manner, or else advertising firms must consider that when a gentleman once signs a certificate he loses all exclusive proprietorship of his own name. In any event, the onus of an explanation falls upon the writers of the certificates. That no such explanation is offered would seem to lead to the suspicion that the gentlemen in question despise professional opinion, and are more defiant than repentant. The Committee of Ethics of the Medical Society of the County suggested the course which should have been taken, and advised the withdrawal of the names in question. In fact, that such advice was not anticipated long ago, was a matter of surprise, but now that the gentlemen still permit their names to appear, is almost past comprehension.

#### INTELLIGENT AND EFFICIENT QUARANTINE.

The report of Dr. Vanderpoel, Health Officer of the Port of New York, to the Commissioners of Quarantine, contains some interesting and suggestive facts. It would appear, as far as these facts will allow us to draw any conclusions, that the problem has been solved of securing effective quarantine at the same time that the interests of commercial circles have been amply considered and satisfactorily protected. Heretofore the existence of yellow fever in the port of New York would have been considered a public calamity, and would have called forth the most strenuous exertions on the part of our health authorities to make the quarantine complete and absolute.

Now, however, we are informed by the Health Officer that the arrival of vessels, having had cases of yellow fever on board, is an event much of the time of weekly occurrence. "During at least five months of the year little or no significance is given to the occurrence, and vessels are given an unrestrained practice, as if no sickness had occurred." And again, "During the period when the transmission of yellow fever is to be feared, and when the examination of suspected vessels is made, 1,143 vessels were at the

station in Lower Bay. Of this number 183 arrived from ports known to be infected; 44 vessels arrived from such ports, having sickness during their stay there, on passage or on arrival here; 140 cases of yellow fever occurred upon them when in an infected port, of whom 36 died; 14 on passage, of whom 12 died; 25 in quarantine, of whom 13 died. Of 7 of the 13 deaths 2 died before reaching hospital and 5 were moribund on arrival at hospital; there were 28 cases in hospital, 25 of which were yellow fever; excluding the 7 above mentioned would leave 18 cases, among whom were 5 deaths, it being about the ordinary percentage for the hospital. The remaining death was from Chagres fever." These are significant facts taken in connection with the statement that no vessels were detained in quarantine longer than for purposes of disinfection, and conclusively prove that sanitary measures and commerce need not be antagonistic, but that the former in this instance was a positive aid to the latter.

This system of quarantine, which was first organized by Dr. Vanderpoel, is for all practical purposes as near perfection as it can be, and after a successful trial of six years in the largest port of entry in the United States it presents itself with all the force of an established principle.

### Reviews and Notices of Books.

ESSAI DE THÉRAPEUTIQUE POSITIVE, basé sur l'examen de l'urine, et des produits morbides. Par le DR. M. CONAN. Paris: J. B. Baillière et fils. 1876.

NOUVELLE METHODE HOMÉOPATHIQUE. Par le DR. FINELLA. Paris: J. B. Baillière et fils. 1877.

1. We have always supposed that the homœopath's hopes of success in treatment were based on the closeness of the resemblance between the supposed pathogenic effects of a selected drug and the "symptoms" presented by the patient. In the first of the volumes before us, however, we meet with a new departure and learn that the proper remedy may be accurately ascertained by a simple examination of the urine if practised in accordance with a method devised by the author. After a preliminary examination of the patient has led the physician to believe that some one of a half-dozen different drugs is the proper one, he makes his final selection by bringing the urinary sediment under the microscope and immediately adding a little of the suspected drug—for instance, a drop of tinc. of *brionia*. If no change occurs, *brionia* is rejected, and *chamomilla*, perhaps, is next tried. If now the sediment is wholly dissolved, the task is ended and *chamomilla* selected as all-sufficient. If, however, some of the sediment still resists, a drop of some other medicine is added, and so on until the entire deposit vanishes from view. When this occurs the medicine or medicines necessary to produce this effect are the ones that must be prescribed for the patient whose urine is under examination, and a rapid cure may be confidently hoped for. We cannot but admire the ingenuity of the author, and hope that our homœopathic friends will give the method a fair trial.

2. From the days of Hahnemann to the present time,



the majority of the writers pertaining to his school have claimed as an essential feature of their system the necessity of administering a single drug at a time. At most, they have given a qualified consent to the alternation of remedies. Dr. Finella, however, boldly confronts the difficulties of diagnosis and selection, by collecting the various diseases into classes, as of the eye, skin, lungs, etc., and furnishing formulæ for the preparation of compound specifics for their successful treatment. In most cases, No. 1, or the "specificque préparatoire," composed of eleven ingredients, all in the third dilution, must be employed. In a case of chronic disease of the skin, however, after the preliminary use of No. 1 for a few weeks, No. 19 must be given. This contains nineteen remedies, all in the third dilution, except "*kreosotum*" in the fifth. Other classes of disease have their appropriate specifics. By this means the physician is saved the trouble of an extended examination of his patient, and a wearisome investigation of the *materia medica* in search of a *similimum*. Dr. Finella's specifics possess an advantage over those of Humphrey, so well known in this country, inasmuch as the formulæ of the former are published.

To be fully appreciated, the two works we have here noticed must be carefully studied.

## Reports of Societies.

### SURGICAL SECTION OF NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, December 11, 1877.*

DR. STEPHEN SMITH, PRESIDENT, IN THE CHAIR.

#### PERITYPHLITIS AND ITS TREATMENT.

DR. LEONARD WEBER read a paper upon the above subject (*vid. p. 48*).

DR. SANDS stated that he had had somewhat unusual opportunities for the study of perityphlitis, and gave the details of twenty cases of this disease which had come under his observation, nineteen of which had occurred in private practice. An analysis of these cases showed the following results: Resolution occurred in 7 cases; recovered after operation, 8; recovered after rupture of abscess into bladder, 1; recovered after rupture of abscess into rectum, 1; died after abscess had been opened, 1; died after an unsuccessful attempt to reach the abscess, 1; died, without operation, of secondary meningitis, 1.

In reviewing his experience, Dr. Sands remarked that the chances of spontaneous recovery by resolution should never be lost sight of, but ought to be carefully estimated in every case before deciding the question of operation. He could recall several instances in which the symptoms, although characteristic, were mild throughout the entire course of the disease, and never indicated suppuration. Usually the fortunate result had followed the use of opium, leeches, and fomentations, which he regarded as the most valuable means of treatment. In these mild cases, resolution had generally occurred early, at the end of the first or the second week. Occasionally the symptoms, although acute at the onset, had quickly subsided under the treatment above mentioned. In rare instances the disease had run a chronic course without suppuration, one patient having had oft-repeated attacks during a period of five months, and finally recovering without the formation of abscess.

In these chronic cases benefit seemed to have been derived from blisters and mercurial inunction. The liability to recurrence after resolution was an interesting fact. One of the patients, a young lady he had seen in consultation with Dr. Draper, had a second attack a year after the first one, both unaccompanied with suppuration. Another had abscess two years after the first attack. A third had three attacks during a period of two years, the last one only terminating in suppuration.

In the case mentioned as having died of secondary meningitis, the abscess, although large, and dependent on perforation of the vermiform appendix, was found, post-mortem, in the lumbar region. It was only suspected during life, and did not reveal itself by the usual tumor in the iliac fossa. In the case in which an unsuccessful attempt was made to reach the abscess, the latter was likewise situated behind the ascending colon, and was caused by a perforating ulcer of the posterior wall of the cæcum. General peritonitis and tympanitis existed at the time when the exploratory incision was made, and rendered the examination of the iliac region difficult and unsatisfactory. If, in such cases, an exact diagnosis could be made, or even if the situation of the abscess could be reasonably conjectured, an incision in the lumbar region would be indicated as in the operation of colotomy.

Dr. Sands had found that, in cases terminating in abscess, the signs of suppuration usually became manifest between the first and second week of the disease. Fluctuation was generally absent during this period, and the formation of matter was indicated by the occurrence of chills or sweating, and especially by a continued elevation of temperature, the thermometer often marking from 101 to 103°. In doubtful cases, he had settled the question by the use of the aspirator. In regard to the proper time for opening the abscess, he thought that no rule could be laid down which would so apply to all cases, and that the urgency of the symptoms, as well as the duration of the disease, should be taken into account. Unquestionably, delay was dangerous, and in the only case he had seen which proved fatal after the abscess had been opened, the latter had attained enormous dimensions, and was not incised until the tenth week. But, on the other hand, the operation might be performed too early, before the abscess was ripe, or before it had approached the surface so as to be accessible. He had once assisted a medical friend who operated, with his concurrence, on the ninth day, but no matter could be found, and eleven days elapsed after the operation before the abscess broke into the wound. Perhaps no harm had come from any of these early operations, and it might be urged that they were of service by dividing the resisting aponeurotic and muscular structures that would otherwise have opposed the progress of matter towards the exterior. Nevertheless, he felt inclined to wait a reasonable period, because then the matter would be more likely to be reached, and because time would thus be afforded for the consolidation and adhesion of the tissues overlying the abscess, without which the fetid contents of the latter would be apt to infiltrate the cellular planes, and occasion sloughing. This he had seen in one instance, and the complication rendered recovery tedious. Of the eight cases that were treated successfully by incision, Dr. Sands himself had operated in five, the remaining cases having been seen in consultation. Excepting the one already referred to, in which the operation was undertaken on the ninth day, they were all submitted to operation between the twelfth and the eighteenth day.

As to the method of operating, Dr. Sands preferred the plan originally practised by Dr. Parker to the modification afterwards proposed by Dr. Buck, although he had found that the external incision need not exceed two inches in length. This having been made parallel with Poupart's ligament, and over the central part of the tumor, the abdominal wall should be cautiously divided to the level of the fascia transversalis, when, by the aid of a hypodermic syringe thrust in various directions, if necessary, the precise situation of the abscess could be determined. A deep incision, half an inch in length, then completed the operation. In one or two instances he had washed out the cavity of the abscess by means of a syringe; in the others it was deemed best simply to insert a tent or a drainage-tube.

Lastly, Dr. Sands stated that he believed there was little danger of wounding the peritoneum during the operation, and that he thought the relations of this membrane to the abscess were often misunderstood. It was commonly held that in perityphlitis due to perforation of the vermiform appendix, the matter was situated in the peritoneal cavity, and the abscess circumscribed partly by coils of intestine, adherent to one another and to the adjacent abdominal wall. But he was certain that this was not the case, and that whenever perforation took place directly into the peritoneal sac, fatal peritonitis speedily ensued. When circumscribed abscess was about to form, he believed that perforation of the appendix was preceded by adhesion of the serous membrane investing the appendix to that lining the iliac fossa, obliterating at that point the peritoneal cavity. Perforation then occurring, the fecal matter or foreign body escaped into the loose connective tissue behind the cæcum, and gave rise to suppuration, which, as it extended, usually stripped off and pushed aside the peritoneal membrane, which therefore would not be endangered by the usual incision made over the most prominent part of the inflammatory swelling. He was confirmed in this view of the pathology of the disease by the result of several autopsies he had either witnessed or heard of, and in all of which the abscess was found external to the peritoneum, being sometimes in the pelvic fascia, sometimes in the loose connective tissue of the iliac fossa, and occasionally in that behind the ascending colon. In no case had he seen a circumscribed perityphlitic abscess in the peritoneal sac.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, December 20, 1877.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

### RECTAL ALIMENTATION.

DR. AUSTIN FLINT read an interesting paper upon the above subject. The importance of the subject was regarded as sufficient to suggest the question, To whom belongs the credit of having been the first to resort to this method of sustaining nutrition? The author of the paper was not prepared to answer the question. It was Samuel Hood who first suggested it in the present century—in the year 1822. Up to quite a recent date, rectal alimentation had not been regarded as an important measure for sustaining nutrition; at least, only slight reference had been made to it by writers on practical medicine.

Of late, interest in the subject had been somewhat awakened. It had not been altogether because of want of cases, which might show that life could be sustained wholly by rectal alimentation, that such

tardiness in recognizing its value had been developed. Reference was then made to a case in which life was sustained for three consecutive months by this means.

A second case was referred to, in which the following clinical facts were made prominent: it was a case of hæmatemesis; exhaustion and exsanguination were very marked. The patient was supported entirely for three weeks by nutritive injections, and the nutritive material was restricted to animal broth, which was tolerated in considerable quantities. Occasional doses of laudanum were added to promote sleep. There was no evacuation from the bowels while rectal alimentation was being pursued. There was a spontaneous evacuation from the bowels, small in quantity, soon after returning to nutrition by the mouth, showing that the nutriment introduced into the bowels had been assimilated.

Reference was made to a third case, in which life was sustained one year and three months by rectal alimentation, and during five years the patient had depended almost entirely upon this method of sustaining nutrition.

Still another case was referred to, in which the patient lived one year under the support chiefly of rectal alimentation.

There were clinical facts sufficient to prove that life could be maintained indefinitely in cases in which recovery was possible, that improvement could be secured in cases in which recovery could not reasonably be expected, and that increase in the weight of the body could be realized by rectal alimentation.

The subject was further studied under three heads:

1. Indications for its use.
2. Appropriate diet to be employed for this purpose.
3. Certain practical rules to be observed.

Rectal alimentation was indicated in obstructions of the œsophagus, the cardiac or the pyloric extremity of the stomach, sufficient to prevent adequate nutrition. It was also indicated in the treatment of gastric ulcer, hæmatemesis, acute gastritis, persistent irritability of the stomach, certain cases of typhoid fever, certain cases of coma, etc.

The kinds of aliment best constituted to form rectal diet was regarded as an important question.

The physiology of the subject was briefly considered in this connection, and it was thought not difficult to understand that, although the aliment met with no digestive juices, the secreting glands, which existed in the large intestine in considerable numbers, might take on a vicarious action when the glands of the stomach and small intestine were not excited into activity by the presence of ingesta.

The idea was also advanced that food introduced into the rectum might excite secretion by the gastric and intestinal glands, and in absence of ingesta in those parts of the alimentary canal, the fluid might pass into the large intestine in sufficient quantity to effect digestion there. Whatever the explanation might be, the clinical fact was well established that digestion of aliment, when placed in the rectum, did take place without the aid of agents which affected digestion outside of the body.

A variety of diet was regarded as better than the persistent use of the same kind of food prepared in precisely the same manner. From analogy, it was reasonable to suppose that such agents as had been found to promote digestion outside of the body might be added to the injections with advantage. Further clinical facts upon that point were needed. The articles now used were meat solution, pancreatic emulsion, Liebig's extract of meat, with or without milk, milk, eggs, mutton and chicken broths. A pancreatic meat



emulsion was mentioned, made as follows: From five to ten ounces of finely chopped meat were added to fully one-third of that weight of the fresh pancreas of the ox, the fat being removed, and mixed with about five ounces of water; the whole was reduced to the consistency of a thick soup.

It was desirable to determine more accurately the affections and conditions in which rectal alimentation was most available, and whether the range of that form of diet might not be extended. Experimental observations upon healthy human subjects would be of interest, and were required. In the cases which had fallen under Dr. Flint's observation, the nutritive injection had not been carried above the rectum. In cases in which the rectum was or became irritable, one-half or a pint of milk could be carried up into the colon and be retained without difficulty. The average quantity of material to be employed in this mode of treatment was from three to six ounces, and the intervals between the injections might vary in length from three to six hours. Small quantities of some preparation of opium might be added to the injection, if they were not well tolerated. It remained to be settled whether or not opium had the same influence upon rectal as upon gastric digestion—namely, to impair it. Preparatory to the beginning of the treatment, the bowels should be emptied either by means of enemata, or by a laxative given by the mouth. As a substitute for drink, when necessary, simple water may be thrown into the bowel, and the surface of the body freely sponged. Alcoholics and medicines might be added to the nutritive injections, or they might be given separately, or they might be used hypodermically. At first, nutritive injections might not be retained, but, if persisted in, they would soon be well tolerated. On the other hand, in some cases they were well tolerated at first, but after a time they were not retained. In such cases it was well to stop them for a short time, when they could probably be renewed with success. It was not thought necessary to wash out the rectum each time prior to using the administration of the nutritive injection. The nutritive injection should be *tepid*. Firm pressure should be made over the anus with a sponge or towel, until the desire to remove the injection had passed away. If the nutritive injections met the requirements of the case, there would follow a sense of comfort and satisfaction the same as after taking a meal in the ordinary way.

The paper being before the Academy for discussion.

DR. FORDYCE BARKER gave expression to his own clinical experience regarding the value of this means of sustaining nutrition, by alluding to cases other than those referred to by the author of the paper, in which rectal alimentation could be resorted to with the greatest possible propriety and advantage. There were cases in which paralysis of the muscles of deglutition was developed to such an extent as to preclude the possibility of getting nourishment into the stomach by voluntary action on the part of the patient, and in such instances rectal alimentation might be the means of sustaining life until such paralysis disappeared. Cases of paralysis of the muscles of deglutition as the result of diphtheria were cited, in which nutrition and life were sustained for ten and twelve days wholly by nutritive injections. At the end of that time recovery from the paralysis had occurred to such an extent as to permit the patient to swallow, and ultimate recovery took place. The stomach-tube was used at first, but it soon became impossible to continue its use. Reference was made to a case of paresis of the right side of the body and of the muscles

of deglutition, associated with pregnancy and albuminuria. The woman was sustained by rectal alimentation, premature delivery was effected, and good recovery followed.

Reference was also made to a disease which in certain respects resembled what had been described as degeneration of the gastric tubules, but which, so far as his experience went, differed essentially from it, both with reference to its pathology and its results.

While it resembled the disease described as degeneration of the gastric tubules in the fact that there was loss of appetite, nausea, vomiting, progressive emaciation, and rapid development of feebleness, it differed from that disease in certain particulars, as follows: in the first place, all those cases in which degeneration of the gastric tubules and of the glands of the intestines had been found, had occurred in patients somewhat advanced in life. The disease to which Dr. Barker alluded, of which he had seen five cases, had occurred in young subjects, between the ages of 20 and 45.

It was characterized by very excessive vomiting, the quantity of fluid ejected being from two to five times as large as that taken into the stomach, or even from three to six quarts of fluid might be vomited without having taken anything into the stomach. The material regurgitated was usually of a brownish color, was exceedingly offensive, the patients complaining of its pungency; it was acid to the taste, although showing an alkaline reaction. With such vomiting there was rapid emaciation and rapid depression of spirits.

There was absence of all evidence of any organic disease, such as ulcer or carcinoma; there was no tumor, or tenderness, or pains, but simply an excessive regurgitation of fluid from the stomach, as described.

Dr. Barker was of the opinion that in those cases there was no disease of either the glands of the mucous membrane of the stomach or of the intestines, but that it was primarily and essentially a neurotic affection. He was brought to that conclusion by a case in which the patient absolutely refused to be treated by the rectum, but determined to abstain entirely from taking anything by the mouth. This total abstinence, except an occasional swallow of water, was continued for days. At the end of that time the man thought he could take some champagne, and accordingly secured and drank two bottles of iced champagne within a remarkably short space of time, and without producing any deleterious results. From that time he was able to take nourishment by the mouth and retain it, and rapid recovery was made. It was thought that the alcohol and the carbonic acid acted as a sedative to the irritable stomach.

Since that time he had seen three cases, and they were all successfully treated by means of rectal alimentation, with the addition of such doses of anodynes as were necessary to allay all irritation.

With reference to irritability of the rectum such as prevented retention of the nutritive injection, even though opium was added, Dr. Barker had overcome that difficulty by passing the tube high up into the colon, so that the fluid would be thrown into the intestine *above* the rectum.

DR. E. R. PEASLEE regarded the value of rectal alimentation as inestimable. It was sometimes remarked that, if a patient was suffering from some active inflammation, it might be best not to make use of any alimentation at all; it was better for the patient to starve for a time. He was of the opinion, however, that such a view was entirely wrong, and did not believe in it at all; for, if those same pa-

tients, in ordinary health, with a pulse of 65 or 70, and a temperature of 98° or 98½° F., required a certain amount of alimentation to repair waste of tissues, they required nourishment quite as much when the pulse was 110 or 120, and the temperature 102-3-4-5° F., for the waste of tissue was going on much more rapidly than in health. Dr. Peaslee had acted in accordance with that principle during the past twenty-five years, and if the patient did not retain nourishment when taken by the mouth, no matter whether he had pneumonia, or peritonitis, or any other inflammation, delay was not made more than twenty-four hours in way of trial, before attention was turned towards sustaining the patient, as well as giving proper medicines, by the rectum. If a patient ever required nourishment, it was when he was rapidly being consumed by a temperature of 104° or 105° F. It was thought that we were getting to understand that fact by the treatment of pneumonia now commonly adopted. We now nourished our patients in the best possible manner in the treatment of pneumonia, and the same thing was applicable in the treatment of peritonitis. He would extend this form of alimentation—rectal—very much beyond what had been stated. It could with propriety be used in cases of persistent vomiting, which sometimes occurred in women at about the time of the menopause; in the treatment of the exhausting vomiting of pregnancy; also in vomiting after ovariectomy and in connection with fevers, etc.; in any and every case, if the patient had been twenty-four or forty-eight hours without retention of nourishment taken by the mouth, alimentation should be commenced by way of the rectum. The next question was, What was the proper substance to use for that purpose? That which Dr. Peaslee had employed extensively was prepared as follows: crush or grind a pound of beef-muscle fine; to that add one pint of cold water; allow it to macerate three-fourths of an hour, and then gradually raise it to the boiling point; allow it to boil for *two minutes*—no more—and then strain. Dr. Peaslee had sustained a woman ten days by means of injections of beef-tea prepared in that manner, and by beef-tea alone. It should be prepared exactly in the manner described, if all the nutritive elements in the beef were to be obtained. Since the introduction of Leube's pancreatic emulsion, he had employed that preparation. How far up should the material be injected? He had placed it high up in the intestine, but, as a rule, he had not found that it remained so well as when thrown into the rectum. Ordinarily, the irritation produced when the injection was thrown high up into the colon was more than when it was simply introduced into the rectum. That did not militate against the remark made by Dr. Barker, however, because there were cases in which it was better retained when carried high up than when left in the lowest part of the bowel.

The quantity used had been usually three or four ounces every four hours. He preferred to use four ounces and not repeat quite so often.

Why did nutritive material introduced into the rectum sustain the patient?

Dr. Peaslee did not think there was any digestion whatever of the aliment so used. It was important to distinguish between digestion and absorption. Digestion was entirely subservient to absorption. The object here, as in cases of inflammation and fever, when nutrition was sustained by food put into the stomach, was to use nutriment which was already digested, already prepared for assimilation, and which could be at once taken up by the absorbents, either in the

stomach and small intestine, or in the rectum, in which ever it might be placed.

Another reason for allowing the nutritive injections to remain in the rectum was because it was much more vascular than other portions of the intestine.

If opium was combined with these injections, absorption was not at all interfered with, but the process of digestion was almost at once arrested by the administration of opium. Reference was made to a single case of gastric ulcer in which life was sustained thirty-one days by rectal alimentation.

Dr. A. H. SMITH referred to cases of gastric ulcer in which nutrition had been successfully maintained by rectal alimentation for eleven, sixteen, and twenty-one days. It had occurred to him that defibrinated blood might be employed with success for this purpose. He did not regard what is called Liebig's extract as a reliable article for sustaining nutrition. He was of the opinion that the dispute which beef tea had fallen into had been greatly engendered by the unsuccessful use of the so-called highly concentrated extracts of meat found in the market.

Dr. GOUVERNEUR M. SMITH referred to a case in which there was a most marked increase in the weight of the body as the result of injections of milk alone.

Dr. PEASLEE remarked that, so far as his experience went, Liebig's extract so-called was entirely worthless; that Borden's was worth something; but that the only reliable compound of the kind was Leube's emulsion, made after Hoffmann's formula.

The Academy then adjourned.

*Stated Meeting, January 3, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

RESIDENT FELLOWS.

DRS. J. H. EDAN, G. E. Sussdorf, and Jas. Ciseneros were elected Resident Fellows of the Academy.

BIOGRAPHICAL MEMOIR OF THE LATE GURDON BUCK, M.D.

Dr. ALFRED C. POST read a memoir of the late Dr. Gurdon Buck.

Mention was made of the following contributions which Dr. Buck made to the art of surgery:

In 1846 he published a paper in the *American Journal of Medical Sciences* entitled "An Operation for Anchylosis of the Knee-joint." The operation was an original one, and consisted in removing a wedge-shaped portion embracing the condyle of the femur, the patella, and the articular surface of the tibia.

In 1848 he read a paper before the American Medical Association in which he brought forward "Scarification as a Means of Treatment in Oedematous Laryngitis."

In 1853 he read a paper before the same Association "On the Surgical Treatment of Morbid Growths within the Larynx."

In 1855 he read an elaborate paper before the New York Academy of Medicine "On Badly United Fractures of the Thigh."

In the same year he published a paper in the *New York Medical Times* "On the Treatment of Deep Wounds of the Parotid Region." The operation, resorted to for the control of hemorrhage in the case reported, was an original one, and consisted in ligation of the primitive and also the internal carotid arteries.

In 1857 he published a paper in the *New York Journal of Medicine* "On the Treatment of Post-facial Abscess in the Iliac Fossa."



In 1861 he read a paper before the New York Academy of Medicine "On an Improved Method of Treating Fracture of the Thigh." The method brought forward was that of continuous extension by means of adhesive plaster, weight and pulley, and commonly known as "Buck's Extension Apparatus."

In 1867, at the International Exhibition at Paris, a model of this apparatus was entered, and Dr. Buck received a diploma and medal as a testimonial to its great value as a means of treating fracture of the thigh. The idea, however, did not originate with Dr. Buck. The principle of continuous extension had been illustrated by Dr. H. G. Davis in his apparatus for the treatment of morbus coxarius, and it was through him that Dr. Buck became acquainted with the appliance. To Dr. Buck, however, the credit should be given for utilizing the principle in the treatment of fracture of the thigh, and for bringing it prominently before the profession.

In 1869 Dr. Buck read a paper before the Medical Society of the State of New York "On Lithotomy and Lithotripsy," and gave the results of operations for the relief of *fifty* cases of stone in the bladder.

In 1872 he published a small volume upon the same subject.

In 1876 he published a small-sized octavo volume "On Reporative Surgery," in which is given his experience in treatment and the operations performed for the relief of deformities produced by burns, gunshot wounds, and other injuries.

The life of Dr. Buck was held up as a model to young men, because it illustrated how much could be accomplished by a steady and uncompromising struggle towards an honorable position in his chosen profession. A fitting tribute was paid to the memory of Dr. Buck as a Christian gentleman.

#### TO THE MEMORY OF DR. KILBOURN.

Resolutions of respect to the memory of Dr. Kilbourn were read by Dr. Garrison.

#### ELECTION OF OFFICERS.

The President announced the election of officers as follows:

*For Vice-President*—Dr. T. G. Thomas. *For Trustee*—Dr. E. R. Peaslee. *For Treasurer of Board of Trustees*—Dr. J. R. Leaming. *For Committee on Admission*—Dr. E. Eliot. *For Committee on Ethics*—Dr. O. White. *For Committee on Education*—Dr. A. C. Post. *For Committee on Library*—Dr. J. Wiener. *For Delegates to the New York State Medical Society*—Drs. J. C. Peters, W. T. White, E. D. Hudson, Jr., T. G. Thomas, and F. A. Burrall.

The Academy then adjourned.

## Correspondence.

### HOW TO SUPPRESS QUACKERY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Your issue of January 5th contains an editorial headed "Albany Ethics, and how to suppress Quackery." To those who, like myself, are regular readers of your valuable journal, the tenor of the article in question was neither surprising nor new, as it forms, in spirit, but one of a series. While no one, however, can gainsay the justness of your views, the solution of the question, "Is the suppression of quackery possi-

ble?" remains as remote as ever. Thus far neither legal enactments nor professional ostracism have succeeded in protecting the public from unqualified practitioners, either general or special. I therefore beg leave to suggest a plan—based on the assumption that the public would employ qualified in preference to unqualified practitioners, *if only they knew which is which*—that seems to me likely to remedy the existing evil—if not entirely, at least to a great degree. This is, *to furnish the public, through the medium of the daily press, a more or less extensive list of regular practitioners and specialists.* The manner in which this may be done is very simple. The County Medical Society ask the leading daily papers to set apart a space—as much as may be required from day to day—headed, "List of Physicians recognized by the Medical Society of the County of New York;" under this head the respective papers to bind themselves to receive no advertisement that is not endorsed "*approved*" by the chairman of a committee (either that on ethics or a special committee) appointed for the purpose by the Society. This advertising space, then, is to be set apart exclusively for such advertisements, approved in the manner above described, as any physician in regular standing chooses to pay for. These advertisements are, of course, subject to certain restrictions. To limit them, however, to the simple name, address, and hours would, while sufficient in the case of the general practitioner, be inadequate where the specialist is concerned. The object being to furnish a guide to the public, it must be permitted to state the specialty to which a physician devotes himself (as permitted also in Europe), without, however, holding out any special inducements. (I would here state that, so far as my own individual opinion goes, no one ought to be endorsed as a specialist who has not, by writings, lectures, dispensary work, or in some other satisfactory manner, established a fair claim to his specialty; in other words, there should be no "self-constituted" specialists.) Should a sufficient number of both classes of advertisements offer, the respective papers might conveniently subdivide the space under the respective heads of "General Practitioners" and "Specialists."

While it may be urged that such a list would furnish but a very incomplete register or guide for the public, it would, on the other hand, tend to stamp all medical advertisements *not* under this head as those of irregular practitioners or quacks.

To make the proceeding more complete, I am in favor of having the following *standing* advertisement heading the list (the expense would, I am sure, be cheerfully borne by the profession of our city, whom, if divided *pro rata*, it would cost but a few shillings each annually): *The Medical Register, containing a list of all New York physicians in regular standing, can be seen at* — (here mention several prominent drug and medical book-stores).

Should my plan be adopted, it would, in addition to the suppression of quackery, subserve another end. You have frequently, in your editorial columns, advertised on the advertising propensities as well as facilities of certain professors. This discrimination against the untitled members of our profession would be effectually neutralized by the adoption of my plan, which would enable untitled and young physicians to compete with the more privileged on a fairer basis than is possible at present. The elaboration and details of the plan would of course fall to the County Society. Yours very respectfully,

GEO. M. SCHWEIG.

NEW YORK, January 10, 1878.

## A NEW HIGH-POWER LENS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The high importance of any improvement or new form of construction tending to augment the value of the microscope as an instrument for medical investigation, emboldens me to ask for a paragraph or two in your overcrowded journal, by way of bringing to the notice of the profession a new objective invented and arranged by myself. Its merits are, that it introduces the condenser as a part of the objective, and thus converts a practical purpose a hitherto-neglected source of illumination, and that it multiplies the power in diameters by five, and in magnitudes by twenty-five, of any objective to which it may be applied, without in the least diminishing its working distance. A  $\frac{3}{8}$ -inch arduous objective, once mentioned in the RECORD for remarkable defining and penetrating properties, forms the basis of the new lens. With one of Pike's medical stands, C eye-piece, and a long and slender capter constructed from the tube of a small continental instrument, the unmodified lens has given me a power of 1,500 diameters. With all its original excellence of definition, and with a sufficient working distance so that thin covers can be used, the same lens, as at present arranged, gives by micrometer measurement the extraordinary power of 7,500 diameters, with the assistance of a  $\frac{2}{3}$ -inch condenser introduced as a part of the sub-stage—a power at which the common monad found in perspiration, saliva, and secretions and excretions, can be studied as to details of structure and classification. The diameter of the field at this power is exactly spanned by three blood-corpuscles arranged in linear series; and yet the field has no central depression or cloud, and each corpuscle lies accurately and exactly defined under the eye. By using this modification, with a good  $\frac{1}{4}$ -inch lens, upon a stand of ordinary construction, the medical investigator may obtain all the results obtained by a  $\frac{3}{8}$ -inch lens, without any of the inconveniences incident to the use of such lenses.

FRANCIS GERRY FAIRFIELD, A.B., Ph.D.,  
*Prof. Microscopy and Micro-chemistry,*  
*New York College of Veterinary Surgeons.*

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 6, to January 12, 1878.*

STORROW, S. A., Major and Surgeon. Assigned to duty at Fort Laramie, Wy. T. S. O. 1, Department of the Platte, Jan. 2, 1878.

WATERS, W. E., Capt. and Asst. Surgeon. To return to San Antonio, Texas, and report in person to the Command'g General Dept. of Texas for assignment to duty. S. O. 4, A. G. O., Jan. 4, 1878.

ELBREY, F. W., Capt. and Asst. Surgeon. Assigned to duty at Oglethorpe Barracks, Savannah, Ga. S. O. 203, Dept. of the South, Dec. 27, 1877.

PAULDING, H. O., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month with permission to apply for three months' extension. S. O. 1, Dept. of Dakota, Jan. 2, 1878.

FINLEY, J. A., 1st Lieut. and Asst. Surgeon. Leave of absence extended two months. S. O. 5, A. G. O., Jan. 5, 1878.

NEWLANDS, W. L., 1st Lieut. and Asst. Surgeon. Assigned to temporary duty at Angel Island, Cal. S. O. 1, Div. of the Pacific and Dept. of California, Jan. 2, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 12, 1878.

| Week Ending         | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|---------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Jan. 5, 1877 . . .  | 0             | 13             | 90             | 2                          | 50       | 82          | 0          |
| Jan. 12, 1878 . . . | 0             | 9              | 85             | 2                          | 70       | 66          | 0          |

GOOD SAMARITAN HOSPITAL FOR DISEASES OF THE RECTUM.—An hospital and dispensary, with the above name, has been established in this city. The following constitutes the medical board: Consulting Surgeons, Drs. Willard Parker, William H. Van Buren, Frank H. Hamilton, and Henry B. Sands; Surgeon, Dr. Edward J. Berningham. This staff will be increased from time to time, as the requirements of the institution may demand, by the appointment of assistant surgeons.

To avoid the abuse of this charity, the managers have decided to adopt the "Provident System," as the following extract from their by-laws will show:

"No member of a family whose income is over ten dollars a week shall be entitled to gratuitous treatment. Those families whose income is between ten and fifteen dollars per week, shall be required to pay ten cents per week while under treatment in the dispensary department. Where the income is over fifteen dollars, but does not exceed twenty dollars, they shall be required to pay twenty cents per week. Where the income exceeds twenty dollars per week, the rate per week shall be fixed at the discretion of the surgeon. All moneys received from this source shall be handed to the treasurer at the end of each month."

DEATH OF MR. THOMAS TREGANOWAN.—At a meeting of the students of the College of Physicians and Surgeons, held January 8, 1878, a committee was appointed to present resolutions respecting the death of Mr. Thomas Treganowan, of South Amboy, N. J., a student of the college, who was suddenly killed on New Year's day while crossing the railroad at Menlo Park, N. J. The committee respectfully report as follows:

*Whereas*, We have heard with surprise and deep regret of the sudden death of our fellow-student in medicine, Thomas Treganowan, and

*Whereas*, We would ever bow to an All-wise Providence, which has thus so unexpectedly removed from our midst our esteemed friend and kind-hearted brother, who but a short time since was so full of life and ambition, and who gave rare promise of being an honor to, and a devoted servant in, the profession he had chosen for his life-work; therefore

*Resolved*, That we will ever cherish his memory with respect, at the same time expressing our profound sorrow at his early death.

*Resolved*, That we extend our sincere and heartfelt sympathy to his bereaved parents and relations.

*Resolved*, That a copy of these resolutions be transmitted to his parents, and also be published in THE MEDICAL RECORD.

W. P. WATSON, }  
 E. W. CRATER, } *Committee.*  
 C. P. W. MERRITT, }



## Original Communications.

### TREATMENT OF DIPHTHERIA.

By W. B. RODMAN, M.D.,

FRANKFORT, KY.

THE recent articles of Dr. J. Lewis Smith in the October, 1877, No. *Am. Journal Med. Sciences*, and Dr. Billington in the *MEDICAL RECORD*, January 12, 1878, prompt me to add my testimony in favor of the treatment advocated by these gentlemen for the cure of diphtheria. For five years I have employed the remedies mentioned in their articles, subject to slight modifications. I was not, nor am I as yet aware that there is anything strikingly new in their plan, as quinine, chlorate of potash, and tincture of the chloride of iron form the basis of numerous treatments for diphtheria, published in the various text-books and medical journals for years past; and I believe there are few practitioners in the country to-day who do not employ one or more of these medicines to combat this disease.

In confining myself to the treatment of diphtheria, I cannot, with propriety, discuss the question whether all cases of idiopathic membranous laryngitis are specific or not. I will relate all cases of this affection which have come under my observation in the last five years, and let my readers draw their own conclusions. Speaking for myself, I regard those cases of membranous laryngitis which have occurred during the prevalence of undoubted diphtheria in the family or immediate neighborhood, as diphtheritic. Those cases which have been isolated and have occurred singly, I consider as "croupous," using this word in its common acceptation.

The first case in which I resorted to this plan of treatment was that of a girl three years old, whom I saw in consultation. Five other children and the father had diphtheritic patches on the fauces. The girl had no alarming symptoms until laryngeal trouble began. It was for this complication I was called. The attending physician had used tincture of iron and quinine, a liberal diet, and stimulants sparingly. I suggested the addition of chlorate of potash to the iron mixture, hot sponges to the throat, and over these oiled silk. I ordered the room to be filled with lime-water vapor, which was accomplished by placing hot rocks in a tub of lime-water, not so elegant a method as the hand-ball or steam atomizer, but certainly as efficacious. In addition to these measures, as occasion required, I used alum, in emetic doses, which cleared the air-passages of mucus and any detached pieces of false membrane which might interfere with the respiration. This treatment was carried out for three days without the slightest variation, notwithstanding the fact that the croupous symptoms were alarming, and no apparent improvement took place. On the morning of the fourth day I was shown a piece of false membrane—an exact cast of the trachea to its bifurcation—which the patient had thrown off the night previous. Notwithstanding the cervical glands were enlarged and the breath fetid, there were no immediate constitutional symptoms indicative of systemic poisoning, but in a short time a decided paralysis supervened, which further confirmed my diagnosis of diphtheria. For this I used no treatment, and the child fully recovered after several weeks had elapsed. The remaining members of the family all recovered, the medicines seeming to limit the extension of the membrane and prevent systemic infection.

The next case was in many respects a most remarkable one. On December 25th, 1874, Col. S. (a citizen of Frankfort), age 40, as robust as any man I ever knew, began to complain of sore throat. For several days he was attended by Surg. J. C. Bailey, U. S. A., who was stationed here at the time. He had several ugly looking patches (diphtheritic?) on his tonsils and palate. These were treated by local applications of nitrate of silver, and some constitutional measures were employed, but I do not recollect what they were. January 2d, 1875, at 4 A.M., Surg. Bailey sent for me to see the case with him. The membranous growth had then invaded the larynx, trachea, and larger bronchial tubes. Lime-water vapor from a steam atomizer was most persistently employed, but still the disease progressed until the smaller bronchial tubes became involved, and our patient died of apnoea at 4 P.M. Col. S. had no enlargement of the cervical glands, no unpleasant odor of breath. There was no case of diphtheria in the county at the time nor for several months thereafter. In other respects his case very much resembled one of diphtheria. In him, the singular phenomenon was observed of the voice being almost hushed from membranous formation in the larynx, and yet the respiration was perfectly free until the disease reached the bronchial tubes. I attribute this circumstance to the large calibre of the larynx and trachea in the adult.

In August, 1875, an endemic of diphtheria prevailed in Frankfort and vicinity. The first case was brought to my office. The boy, aged six years, had a pulse of 100, temp. 100°. Upon examination, a membranous patch was found upon each tonsil. Though I had my fears as to the nature of the trouble, my diagnosis was not confirmed until the day following, when his sister was brought to me similarly affected. I pronounced both to be cases of diphtheria, and at once began my usual constitutional treatment. At that time I used no local applications, relying upon the topical effect of the iron and chlorate of potash mixture as each dose was swallowed. In a few days the patches had entirely disappeared from the boy's throat, the enlargement of the cervical glands and fetor of the breath were gone. He seemed to be well, and I discontinued my treatment and visits. Two days after, I was sent for again. I found the child almost moribund from asthenia. There was no appearance of false membrane anywhere. He died in a few hours, although stimulants and concentrated food were pressed to the utmost. This case taught me a lesson which I now most rigorously observe. At present I never fail to keep up my general remedies for several days after all symptoms of the disease have subsided, preferring to do too much rather than too little. In a series of sixteen cases which came under my own care during this endemic, this was the only one I lost, although three of the series had alarming laryngeal complications. One of these cases I think proper to relate.

My little cousin, Hallie R., age two years, began to complain of sore throat on Sept. 9th. Upon inspection, diphtheritic patches involved both tonsils and palate. I say diphtheritic because the disease was then prevalent in the city, and a sister of Hallie was at the same time attacked with it. I gave her quinine in mucilage of slippery elm, also large and frequently repeated doses of the iron and chlorate of potash mixture. Under this plan she rapidly recovered, and by the 15th I pronounced her well. Profiting, however, by my experience, I continued the remedies until the 20th and then dismissed her. On the evening of the 23d, she had decided symptoms of croup. I examined her

throat thoroughly and not the slightest trace of membrane was visible. I recommenced the use of the quinine, iron, and potash mixture, applied hot sponges to the throat, and kept the room full of lime-water vapor by hot stones, etc., as in the first case mentioned. I resorted, occasionally, to turpeth mineral as an emetic, regarding the case as one of croup and not diphtheria. I succeeded, in this way, in dislodging enormous quantities of a thick, tenacious mucus, thereby relieving temporarily the labored breathing. The case went on from bad to worse until the night of the 25th, when I thought tracheotomy inevitable. I sent for Asst. Surg. Elbrey, U.S.A., to see the case and assist me in the operation should it become necessary. We concluded to wait a few hours longer, and in that time the child began to improve; a piece of false membrane was expectorated, and from this time she rapidly recovered. At the time I treated this case I was inclined to regard it as one of non-specific membranous laryngitis, and I believe that Dr. Elbrey coincided with me in my opinion; but I think now that the diphtheritic influence was still prevalent, though the child had seemed perfectly well for more than a week.

In the family of Robert Quire, living within a mile of town, I treated four cases of diphtheria. Two of his children, aged four and two years respectively, had diphtheritic laryngitis. By pursuing the same line of treatment as in the preceding case, both recovered. The younger child, however, had paralysis to the extent that it could not stand alone, and did not walk for more than six months unless holding by a chair.

I have never seen a single case of undoubted diphtheritic laryngitis die where this treatment was employed from the beginning; the four cases, occurring in the children above mentioned, comprising all such which have come under my notice. That this treatment may fail me in the future I do not doubt, for it may fall to my lot to meet with cases in which nothing will do good.

Of four cases of supposed croupous laryngitis (cases isolated as to time and place) which I have seen, three died, one recovered. The case of Col. S. has already been noticed. Another, a girl six years of age, was seen by Dr. Sawyer for the first time after an illness of four days. He pronounced her condition an almost hopeless one, decided œdema of the lung being then present. The next day I was called in consultation; tracheotomy was immediately performed—the patient lived twenty-four hours after, and succumbed to the lung complication. A boy, aged two years, had been sick with “croup” for five days. When I first saw him he was almost moribund. Tracheotomy was performed three hours after my first visit. He lived about thirty minutes after the completion of the operation. The successful case was that of a child, aged four months, whom I saw in consultation with Dr. Sawyer. There was undoubted membranous formation in the larynx and trachea. Lime-water vapor (with carbonate of ammonia?) seemed to rescue the little fellow, after a glorious struggle of two days.

What the result might have been in these isolated cases of membranous laryngitis which proved fatal, had the measures advocated in this article been employed in time, no one can tell. The result of treatment speaks for itself in the diphtheritic cases which I have seen, and in those cases related by others adopting a similar course.

The prescription which I generally use for a child five years old, is as follows:

R. Tinct. ferri chloridi,  
Potass. chloratis..... ʒ ss.  
Syrup. limonis,  
Aq. destillat..... ʒ iij.  
M. Sig. Teaspoonful every two hours.  
R. Quin. sulph..... ʒ j.  
Div. in chart. viij.  
Sig. One with alternate doses of the mixture.

I direct the nurse to give the quinine in mucilage of slippery elm. I think that children take it more readily in this way than any other. I spray the throat with solutions very much like those recommended by Dr. Smith, but should laryngeal symptoms supervene, I prefer to fill the room with lime-water vapor in the manner before mentioned. Under these circumstances the child can breathe nothing else; there is neither the intermission nor the terror which accompany the use of the atomizer.

The above prescription is singularly like that of Dr. Smith in October, 1877, number of *Am. Jour. Med. Sciences*, and were I not able to produce from the prescription files of my apothecary, for years past, exact copies of the one which I have written, I might fear the charge of plagiarism. One objection to Dr. Smith's prescription is that it contains no water, the menstruum being altogether syrup. Children take the prescription which I offer without trouble.

I will close this report by relating a case recently under my care, which I think fairly illustrates the power of this treatment to control the progress of diphtheria.

January 1, 1878, I was called to see Willie McC., aged six years. He had then been sick three days. Pulse 120, respiration 28, temperature 104°. Cervical glands enlarged, breath fetid. Upon inspection I found an ugly-looking, grayish patch, as large as a silver quarter, completely covering the rigid tonsil. The palate and other tonsil were dry, red, and glazed. The prescriptions above are exact copies of those I ordered for him. In three days the membrane came away; pulse, temperature, and respiration became normal, and appetite good. The throat still presented more of a red and glazed appearance than I liked. I concluded that three times a day was often enough to administer the remedies, and so ordered. Next evening pulse 110, temperature 103°, and a patch of membrane as large as one's finger-nail had formed on the left tonsil. I ordered the doses to be given as frequently as at first, and the throat to be sprayed with carbolic acid and lime-water. The constitutional symptoms at once abated, the membrane never increased in extent, and in a few days I dismissed him well. I will state further, that by isolating this case, and the use of chlorine gas as a disinfectant, I have so far stopped the spread of the disease.

I do not wish to claim too much for this treatment. Thus far, with one exception, the only severe cases of diphtheria which I have had, have been those with laryngeal complications. Some might have been more severe but for the remedies used. I would rely upon this plan in preference to any I know, in all cases of diphtheria, whatever might be their type.

JANUARY, 1878.

## THE TREATMENT OF DIPHTHERIA.

By C. E. WILLARD, M.D.,

PRESIDENT GREENE CO. MED. SOCIETY, CATSKILL, N. Y.

UNDER the head of “Original Communications,” in the *MEDICAL RECORD* for January 12, 1878, is an article on Diphtheria, by C. E. Billington, M.D., and as his treatment is very similar to the course of treatment



I arrived at after many trials, close observation, much worry of mind, and almost constant attendance during three epidemics of diphtheria, I feel constrained to add my mite to what has already been written upon this subject, partly in corroboration of Dr. Billington's article, and partly to induce others to test the treatment pointed out in this paper.

I have recently had in my practice twenty-three cases of diphtheria, with but two deaths.

Of course, all these cases were not equally severe. The recovery in several instances, however, was contrary to all expectation.

I will give in brief the course I have generally pursued. In place of Dr. Billington's iron and glycerine mixture—

R. Tr. Ferri chloridi. . . . . 3 i. to 3 iss.  
Glycerine,  
Aque. . . . . aa 3 i.  
M.

I have, in the majority of my very severe cases, used the following:

R. Tr. Ferri subsulphatis. . . . . 3 i. to 3 ij.  
(Monsell's solution)  
Aque. . . . . 3 ij.  
M.

thoroughly washing the throat with it, after which I have the patient swallow five drops of the ferri sulph. diluted in a little glycerine and water, and alternate this with potassæ chlorate, every hour. Once in from four to six hours I give (Squibb's) carbolic acid internally, after first cleansing the throat by gargling with the same, and I make it a special point to always have the throat well rinsed (with the carbolic acid water) previous to taking nourishment.

From four to six times during the day, and once or twice during the night, in extreme cases, I order the vapor of lime to be thoroughly inhaled from ten to twenty minutes, by placing a pail with a little warm water in it near the patient, cover both with a sheet, and drop a lump of lime into the pail, which will begin to boil in a few seconds.

I remove as much of the false membrane as I possibly can, and as often as I can, without injuring the mucous membrane of the throat. To accomplish this, I sometimes take a very thin piece of whalebone, and by scraping it quite sharp along one edge, and doubling it together like a hair-pin, I introduce it below the tonsils, and, much after the manner of reopening a freshly sealed envelope, I gently peel off the false membrane.

I have on several occasions, by this method, averted imminent suffocation. After ridding the throat of what membrane I can in this manner, I at once apply a moderately strong solution of carbolic acid.

I also keep a pail partly filled with the *acid water* near the bed, and order the patient to spit everything into it—in other words, not to swallow *any* of the mucus from the throat. In this manner I have hoped to cut off a part of the poison from being absorbed into the system through the agency of the stomach. The amount expectorated in twenty-four hours is quite astonishing.

I have the house generally disinfected, and as a prophylactic, place the whole household on carbolic acid (Squibb's) ten drops to a goblet of water, letting them use it as a drink. I think I have derived much benefit from this in preventing the spread of the disease.

Of the two cases I lost, one died of paralysis of the heart, and the other from the membrane extending down into the bronchial tubes, causing suffocation.

I have one case on hand at present, and that is doing well.

In nearly all of my cases the membrane has *first* formed on the *left* tonsil or *left* side of the throat. After calling the attention of several other physicians in our town to this fact, they were enabled to corroborate it in their own practice.

Since adopting the above course of treatment my success has been quite uniform, and decidedly in advance of any treatment I had used heretofore.

## ON REPORTS OF FATAL AND "SHOCKING" RESULTS OF VACCINATION.

By HENRY AUSTIN MARTIN, M.D.,

BOSTON, MASS.

My attention has just been called to the report of "death following vaccination" in your issue of Dec. 22d. Fortunately this case needs no tedious and difficult investigation. A child, three years old, vaccinated in an atmosphere poisoned with the miasma of scarlet fever (which the reporter calls a "cutaneous disease"—a very mild term, surely, for a fever the contagium of which is the most subtle and deadly, in its manifold and protean manifestations, of all its dire family), died from the inoculation with that poison, on the 22d day after vaccination with a quill of bovine virus obtained from a reputable source in St. Louis. A number of other children, vaccinated in the same atmosphere, manifested symptoms precisely the same in character, though not in degree, and did not happen to die; while many other patients, vaccinated in other places with virus taken from the same animal at the same time, exhibited no symptoms except those of a regular and perfect evolution of *vaccinia*.\*

Although the reporter seems in great doubt how to class his case, hesitating about erysipelas and syphilis, to neither of which has it the remotest analogy, there does not seem much doubt that it was a case of septicæmia associated with phlebitis and thrombosis, and that the immediate cause of the sudden and unexpected death was the passage of an embolus *directly* (as the vaccination was probably on the left arm) into the heart and instantly arresting its action. If a child were inoculated with pure vaccine lymph, and an hour after with the venom of the viper, and died, would it be fair to even mention vaccination as an element of the case? Yet this is essentially what is done by any one who charges to vaccination the death of a child vaccinated in an atmosphere loaded with volatile contagium of the deadliest character. The reporter speaks of a "mild" epidemic of "scarlatina." The contagium of scarlet fever, is always the same; whether its manifestations in a given subject, or group of subjects, are "mild" or otherwise depends on accidents and influences of which we have either very little knowledge or none at all. The cases reported by Dr. Hawes afford us one item of positive knowledge, viz.: that the inoculation of the contagium of even a "mild" form of that "cutaneous disease" called scarlet fever is far from being a mild or safe operation. No physician would knowingly vaccinate a child in the same house or even neighborhood with a case of hospital gangrene or malignant erysipelas; and if he would not, then even more reluctant should he be to vaccinate in

\* This fact, not mentioned by the reporter, was communicated to me at the meeting of the American National Medical Association, in June last, at Chicago, by the gentleman who furnished the virus with which Dr. Hawes' fatal case was vaccinated. Dr. Hawes fails to state an important point, viz., whether the other children who manifested septicæmic symptoms were vaccinated with virus from the same animal.—H. A. M.

an atmosphere impregnated with the even more subtle and lethal poison of diphtheria or scarlet fever. Vaccinate an old adult of broken constitution, and, a week after, let him lie, drunk, with his vaccinated arm buried in a snow-drift for four hours together; let mortification and sloughing of that portion of the skin occupied by the inflamed vaccinal areola take place, and attribute the result to vaccination. Is that fair? But I have known just such a case so reported, and others in all essential respects analogous. These cases happened to be after the use of humanized vaccine virus, but I doubt not that they might have happened, under similar circumstances, after that of bovine virus. In 1859, a "doctor" in a country town in Massachusetts was employed to vaccinate the inhabitants. He wished to economize his virus, broke up two and a half scabs, and put the powder into an ounce phial, filled with pure snow-water (he was so careful it should be "pure"). From this precious solution the doctor inoculated all comers for ten days without effect, good or bad, vaccinal or other. On the eleventh day, when it was in evidence *at the inquest*, that the bottle, being opened, notwithstanding the purity of the snow-water, such a stench filled the room in a minute, that it was absolutely necessary to open a window, he "vaccinated" twenty-five adults. Of these, three, the oldest and least able to bear such inoculation, speedily died; some nine or ten escaped with shattered constitutions and ruined left arms, and would not have been so fortunate as even thus to escape, but for the heroic and efficient treatment of an excellent surgeon, Dr. Gilman Kimball, of Lowell, Mass. Most of the remainder suffered more or less severely. Were these deaths and disasters results of vaccination? Had they anything to do with vaccination? Yet these cases ("The Westford Cases") have been quoted again and again against vaccination and revaccination, and will be so quoted till the end of time. The crusts happened to be of human origin; but I doubt not that an eleven days' solution of bovine vaccine crust, of beefsteak, or canvas-back duck, in pure snow-water, would, by inoculation, induce like results. Indeed, I know that solutions of beef and mutton, in water of ordinary purity, *did* induce in animals just such symptoms and deaths, after a certain stage of putrescence was reached in the experimental hands of Orfila.\*

Thirty-three years of study and daily experience in these matters convinces me that, at the bottom of ninety-nine hundredths of the more terrible stories against vaccination will be found either a gross lie or exaggeration, or some piece of inexcusable malpractice like that just indicated, and that vaccination, properly so called, either with humanized or bovine virus, has really nothing to do with them. The objections to humanized virus are, outside the possible one of being the vehicle of syphilis, principally that its use is liable to the complication of erysipelas, usually of a mild and manageable type, that its use is very apt to be followed by the irritable spurious form of vaccinia, not protective from variola, and that it possibly *always* induces a less permanently protective form of vaccinia than bovine virus, or virus of early removes from the animal. The terrible cases now and then, far too often, appearing in the journals, are the results, like the Westford cases, of (1) the inoculation of animal matter in a certain condition of putrescence; (2) the vaccination of patients in a very morbid condition, who should not be vaccinated at

all; (3) the vaccination of elderly or very young persons, and their subsequent exposure to protracted and extreme cold; and (4) the vaccination of patients in a poisonous atmosphere, forgetful of the fact that a volatile atom of contagium is just as inoculable as the particle of contagium contained in the albuminous coating of a charged vaccine-point. The wonderful safety of vaccination, the rarity of serious results, and the insignificance of the fee usually paid for its performance, have all contributed to lead to a forgetfulness that any caution is necessary in performing it to avoid danger, or any inspection of the course and perfection of the result to secure the development of a protective form of vaccinia.

A very large number of vaccinations are made without inquiry as to surrounding influences, morbid or septic, and without the physician ever again seeing his patient. When the profession fully and generally appreciate the possible dangers of vaccination, and that any sort of "sore arm" does not necessarily insure the highest possible protection from small-pox; and when the vast mass of the people also shall feel that vaccination means something more than a very trivial operation, and are willing to pay for the care and repeated visit or visits which should be given to every vaccination, we shall have fewer reports of cases like that of Dr. Hawes, and a much diminished prevalence of variolous disease, following, within even a few months, a performance of the operation which should have prevented it.\*

#### A RARE CASE OF PERIPACHYMEINGITIS SPINALIS, WITH HEMIPLEGIA; COMPLETE RECOVERY.

By L. PUTZEL, M.D.,

NEW YORK.

WM. T—, æt. 22 years, no hereditary tendency to nervous diseases; patient perfectly healthy until March 8, 1876, when he suddenly felt pain in left shoulder, which soon extended into the other shoulder and into the cervical and upper dorsal regions of the spine; this was attended with strongly-marked torticollis on the left side. The next day, March 9th, patient was admitted to Roosevelt Hospital. For permission to publish his history during his stay in that institution I am indebted to the kindness of Dr. Wm. H. Draper, under whose care the patient was for a part of the time.

On March 13th a swelling was noticed on the back of the neck, on the left side, and a diagnosis of deep abscess in the neck was made. From March 10th to 20th the patient's temperature varied irregularly from 100° to 104°; pulse rapid, and an eruption resembling typhoid appeared on the back and chest;

\* In the latter part of 1861, I wrote to that eminent vaccinator, Robert Ceely, of Aylesbury, England, the ablest *original* investigator of cow-pox in the animal since Jenner, for a supply of virus from his famous "stock," obtained by variolation or kine. Not till June 9, 1862, did he answer me, and the following extract from his letter of that date explains the delay, and is very appropriate here:

"The fact is that an epidemic of *scarlatina* having prevailed here for several months past, I have been obliged to suspend all vaccination till the last fortnight, and as I was desirous of sending you some recent lymph, I have been compelled to defer my reply till now. The lymph which I now send, I have been enabled to revive from tubes which I have kept in store since last December. It is, to my mind, quite satisfactory in its effects, being derived, about six years since, from the inoculation of a cow with the virus of human variola."

This "stock," I may observe, was characterized by an extreme mildness and shortness of duration of the *vaccina* induced by its use. I propagated it for several years, and have alluded to its peculiarities at great length in my forthcoming report on Animal Vaccination.

\* M. Orfila, "Traité de Toxicologie." Paris, 1843. Tome II., page 630 et seq. "Des Matières Putréfiées."



patient had severe pains in the back and in left extremities. From March 20th to April 1st patient had complete paralysis of the bladder. He now began to suffer from feeling of "tight band" around the lower part of the chest; this lasted eight to ten weeks. Paralysis of motion now began to show itself in the left arm, and soon spread to the left leg; there was also some anaesthesia on the left side of the body. At the end of March paralysis was almost complete on the left side. On April 2d patient began to slowly regain power over the paralyzed parts; the anaesthesia gave way to hyperaesthesia. For a week succeeding this date there was intense pain on the left side; the left leg and arm are now slightly contracted; some pain in right arm. During the whole illness temperature did not go above 105°, and was very irregular.

Patient kept on steadily improving, and was discharged from hospital July 19th. During his sickness patient had fibrillary twitchings in muscles of left side; was costive from the beginning of the attack; never had headache or other cerebral symptoms, except slight strabismus; formication and tingling in left side at times. The patient first came under my own observation about the end of September, 1876, at the Class for Nervous Diseases in the out-door department of Bellevue Hospital. Patient then had partial left hemiplegia; the left arm and forearm were each half an inch smaller than on the right side; the movements of lower limb are much more affected than in the upper limb; patient drags the limb very markedly in walking, and must use a cane; he has a feeling of numbness in the adductors of the thigh and flexors of the leg; sensation otherwise normal; reaction of muscles to electricity is normal for both currents. In the left rhomboid minor muscle is found a small, indurated mass, which is very slightly sensitive to pressure. Patient was treated by local faradization. About the end of December, 1876, the swelling in the rhomboid muscle became tender, and was treated with flying blisters. It persisted until the middle of January, and then disappeared for a few weeks, to reappear again in various places in the right and left rhomboidei and levatores anguli scapulae. These swellings were somewhat tender on pressure, hard, circumscribed, and immovable. On February 28th patient drew my attention to a small abscess situated over the third and fourth dorsal vertebrae; this was opened, and discharged a small amount of thick pus. On March 1st a very small piece of bone was discharged through the opening, and the next day patient entered Bellevue Hospital, where Dr. Jacobi laid open a sinus extending four inches upwards along the course of the spinous processes; the sinus was probed without any dead bone being found. On the posterior superior angle of the left scapula I obtained a feeling of crepitus, and the patient winced when this spot was pressed upon. The patient left Bellevue after a few days, but was still kept under treatment at the Dispensary by local faradization until July 1st, when he returned to work, approximately cured. On November 20th the patient again reported to me with the sinus completely closed, the swelling and induration in the muscle entirely gone; there is still a slight feeling of roughness over the posterior superior angle of the scapula. The muscular power on the left side is completely restored, the patient now working in an iron foundry without experiencing any difficulty.

*Remarks.*—The case is evidently one of inflammation within the spinal canal; the exact location of the lesion is a matter of considerable obscurity. In my opinion the diagnosis lies between meningitis spinalis

simplex and peripachymeningitis spinalis. My reasons for adopting the latter view are as follows:

1. All of the symptoms of the disease can be readily explained on the theory that it was due to a suppurative inflammation in the cellular tissue between the dura mater and the vertebral bones.

2. Some of the symptoms characteristic of meningitis were absent.

- a. There were no cerebral symptoms whatever; a case of severe spinal meningitis, especially when the cervical portion of the meninges is affected, without the supervision of any cerebral manifestations, is an exceedingly rare clinical experience.

- b. No tenderness was observed along the spinous processes, and none of that rigidity of the spine so characteristic of spinal meningitis.

- c. There was absence of increased reflex excitability.

3. Paralysis came on later than is usual in cases of meningitis simplex.

4. In cases of meningitis, attended with as much paralysis as was present in this case, there is usually a co-existent myelitis, and recovery is therefore not so complete as in this instance.

5. If we examine the clinical history carefully we will find that the local symptoms were chiefly confined to the left side of the body. The case was, in reality, a spinal hemiplegia, and differs from all others hitherto recorded in the fact that motion and sensation were affected on the same side. The power of voluntary motion was very much diminished on the affected side, while the disorders of sensation, consisting of formication and tingling, hyperaesthesia of the skin, intense pains and then numbness, were also confined almost exclusively to the left side.

These facts prove conclusively, to my mind, that the diseased process must have produced pressure upon the roots of the nerves on the whole left side of the spinal canal, and while it would be highly improbable that a meningitic process should be limited to the whole length of only one lateral half of the cord, it is readily conceivable that this should take place in the peridural connective tissue, where the disease is not so likely to spread as on a serous membrane.

A very interesting question presents itself to our notice when we come to consider the etiology of the affection. Was the inflammatory exudation within the substance of the rhomboid muscle the primary cause of the peripachymeningeal inflammation, or was it secondary to this inflammation?

Although it is impossible to absolutely determine the causal connection existing between these two trains of occurrences, I think that the weight of evidence and probability is strongly in favor of the first assumption.

A review of the bibliography of the subject will throw some light upon the question. After very diligent search I have been able to find records of only seven cases of this disease. Of these one is reported by Mr. John Simon in the "Transactions of the London Pathological Society" for 1855; two cases were reported by Traube before the Berlin Medical Society in 1863; one case detailed by Mannkopf in the *Berlin Medicinische Wochenschrift*, 1864; one formed the basis of a dissertation by Mueller, "Ueber Peripachymeningitis Spinalis," Koenigsberg, 1868; the sixth case is described by Leyden in the "Klinik der Rueckenmarkskrankheiten (no autopsy); and the seventh is also reported by Leyden in the *Berlin Klinische Wochenschrift*, Dec. 17, 1877.

In Mr. Simon's case, the disease followed a fracture of the spine; a large quantity of pus was found from two inches below the foramen magnum along the

whole length of the cord between the dura mater and the inner surface of the vertebrae; the inner surface of the dura mater, the pia mater, and the cord were perfectly normal; two abscesses were found outside of the spinal canal and connecting with it through the intervertebral foramina.

The history of this case, together with the post-mortem appearances, prove that the perimeningeal inflammation was secondary to the abscess formations outside of the canal.

In one of Traube's cases, there were so many minute abscesses in the deep spinal muscles, and the symptoms of their formation appeared so late after the development of meningeal symptoms, that it evidently points to the primary development of the meningeal affection.

Traube's second case is reported so meagrely that it is uncertain whether the peridural tissue was at all implicated, or whether the inner surface of the dura and the pia mater were alone affected; in either event the clinical history renders it very probable that the abscesses found in the spinal muscles were of a secondary nature.

Mannkopf's case is reported very fully and clearly, and it is rendered almost certain by Mannkopf's own arguments, that the disease was secondary to a deep-seated inflammation in the cellular tissue around the larynx and in the deep tracheal muscles. From this situation, the inflammation could be traced along the cellular tissue backwards through the intervertebral foramina into the connective tissue between the dura mater and the 7th cervical and 1st and 2d dorsal vertebrae on the left side posteriorly, forming a tumor there which pressed on the cord; with the exception of slight anemia, under the site of the tumor, the spinal cord and its membranes presented no abnormal appearances whatever.

Mueller's case, which I have been unable to consult in the original, originated, according to Leyden (in whose clinic the case was reported), in an inflammation around a sarcomatous growth in the subpleural tissue and thence passed through the intervertebral foramina into the perimeningeal connective tissue.

In Leyden's case (no autopsy) the primary symptoms were due to an abscess which was opened in the neighborhood of the left anterior superior spinous process of the ilium and then followed the symptoms of the chronic meningeal affection.

In Leyden's latest reported case, the history is as follows: In March, 1873, patient received a severe blow in the spine and left shoulder. In first few weeks there was pain in left shoulder, with paresis of left arm and some paresis of lower limbs which soon disappeared. His condition remained nearly stationary until January, 1876, when there was an exacerbation of the pains in back and legs and, a week afterwards, paraplegia occurred with paralysis of the sphincters. Towards the end of February, decubitus; in April, 1876, death. Post-mortem revealed a mass about three millimetres thick surrounding the dura mater from the 3d to the 10th dorsal vertebrae; this mass presented the appearances of a chronic inflammatory exudation. The cord was in a condition of acute compression-myelitis. Muscles of left arm showed chronic interstitial myositis; the inflammatory process extended along the loose tissue between the muscles and large nerve-trunks. Leyden thinks it very probable that the whole process originated in the left shoulder and from thence penetrated into the spinal canal.

We find, then, that of the six cases hitherto reported, five were secondary to inflammation outside

of the spinal canal and two were apparently primary. The *a priori* evidence is, therefore, in favor of the secondary origin of the affection in our case.

Positive evidence, however, is not wanting to point in the same direction. In the first place, patient states that he noticed the swelling in the neck on the first day of his admission to Roosevelt Hospital, thus showing that the inflammation in the external tissues was at least coincident, in point of time, with the beginning of the spinal affection and, in all probability, antedated it. Secondly, the discharge of a piece of bone from the fistula, together with the fact that I obtained crepitus over the superior posterior angle of the scapula, in the immediate neighborhood of which the swelling first appeared, is quite conclusive to my mind that the morbid process was originally a necrosis of a portion of the scapula, and that the pus, instead of bursting outwards, passed inwards through the intervertebral foramina and there set up a suppurative inflammation around the dura mater.

252 E. 48TH STREET.

## Reports of Hospitals.

### UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

CLINIC OF WILLIAM GOODELL, M.D.,

PROFESSOR OF GYNÆCOLOGY.

(Reported for the MEDICAL RECORD.)

#### CYSTITIS IN THE FEMALE.

VERY few women are free from this trouble at some period or other in their lives. If the womb happens to be retroverted, or anteverted, the consequent pressure upon the neck of the bladder is very likely to bring on inflammation. Again, it may be due to the pressure of a neighboring tumor or one of the internal organs, or be the result of a tedious labor or forceps case. It is very hard to treat cystitis successfully. One method has been to perforate the bladder and remove the irritation, by making a vesico-vaginal fistula. The great difficulty lies in the innate tendency of such artificial fistulae to heal up at once, so that it needs our constant attention, and perhaps several operations, to keep the fistula open. Knowing how hard it is to cure a natural vesico-vaginal fistula (*i. e.*, one produced during the process of labor, or by some other natural cause), this difficulty in keeping an artificial opening patulous must seem very remarkable to you, and yet such is always the case. The bladder is usually very much thickened by the cystitis, and not only is the operation a very delicate and laborious one, but, as I have said above, a clean-cut incision tends to heal rapidly.

We may attempt to get at the root of the disorder by the introduction into the vagina, each night and morning, of a suppository containing one grain of opium and one grain of belladonna. Or, we may use rectal suppositories containing one grain of the watery extract of opium. Joined with this treatment, which gives very good results in some cases, only the lightest of food should be allowed. Suppose, however, that we are led to believe that the cystitis is largely due to the acrid qualities of the urine. Of course, when this is the case, our efforts must be directed to the neutralization of the urine, and I should



prescribe from ten to fifteen minims of liquor potassii thrice daily in milk. Joined with this, the same amount of the tincture of belladonna may be administered. If both of these modes of treatment fail, we may try to cure by injections into the bladder, say of from four to five ounces of a solution containing from two to three grains of morphia. The bladder absorbs but very slightly, still this injection must not be long retained. A German gynecologist has lately advised the injection of normal urine into the bladder. The bladder is of course intended for healthy urine, and I have no doubt that this method has great merit, though I have not yet tried it.

Of late years an operation has been devised for the relief of cystitis. If you pass your finger through the junction of the urethra and bladder, you will touch, in the vast majority of cases, a very painful spot. This tenderness may be due either to the presence of a fissure or unhealed ulcer. Physicians in England have cured cystitis by forcibly dilating the urethra. If the cystitis be dependent upon the ulcer, the partial paralysis of the constricting muscles consequent upon the dilatation is the best possible remedy. The woman, after the dilatation has been accomplished, passes her water with far more ease through the yielding sphincter.

I remember one instance where I performed dilatation without any success. It was the case of a woman who had remained all day in a stage-coach without making her water, as a consequence of which imprudence she had a terrible attack of cystitis, joined with retroversion of the womb. As I say, dilatation did no good in that case.

This patient that I bring before you to-day was confined with her second child on the 23d of March, 1877. She is to-day in the third month of a third pregnancy. Ever since the birth of her first child she has suffered from dysuria. Lately she has been obliged to pass her water twenty or thirty times during the day, and from five to ten times during the night. You remember that I dilated this woman's urethra before the class on the 7th of last March. So much good was effected by that dilatation, that she wants me to perform the operation a second time.

Sometimes we give rise to dangerous bleeding during the process of dilatation, but the hemorrhage is usually controllable. If much blood escapes, just pass a threaded needle underneath the part and close up the wound with a stitch.

You see that while I have been talking to you I have introduced a uterine dilator, and have been gradually and gently dilating the sphincter. I usually have a slight laceration; to-day the tear has been the cause of quite considerable bleeding, owing to the highly congested state of the parts. Some doctors use the uterine forceps for dilating, but I prefer this instrument. After inserting it and separating the blades as far as necessary, I allow it to stay in for a short time. You see that it is provided with a little rat-hook which holds it in place. I think that I have now dilated sufficiently to enable me to insert the tip of my little finger. By gently forcing my finger, I am getting it in further and further. I always take this opportunity to investigate the bladder and see that there is no stone in it. There is none here, and moreover, I am not able to discover any serious roughness of the lining membrane of the bladder, except just at the neck. I have passed my little finger all the way in, you see, and will now do the same with my index finger. No harm can happen from this if it be done carefully. I may say in passing that very many physicians insert their little finger into the

bladder for the purpose of diagnosing tumors, etc.

In the vast majority of cases, dilatation is followed by signal success. This woman has only to rise once or twice at night, instead of five or ten times, as formerly. By the way, let me call your attention to the remarkable association existing between the brain and the bladder. When one's bladder is irritated, and not working rightly, the attention is sure to be directed to that organ, and the more we think of it, the more frequently we have to pass water.

I have succeeded in getting the second joint of my index finger through the sphincter, and I think that I have now carried the dilatation far enough. I told you that this woman was in the third month of pregnancy. Some would, no doubt, consider any operation, such as dilatation, dangerous under the circumstances, but I am quite sure that no harm will come of it. I shall order the woman to bed until she is entirely over the effects of the ether. There will be very little pain consequent upon the dilatation.

#### HÆMATOMA IN DOUGLAS'S POUCH.

This case comes to us as one of tumor of the womb. I am inclined, at first sight, and without questioning the woman, to doubt this statement and rather consider the case one of pelvic cellulitis or pelvic peritonitis. The text-books say that these two are distinct diseases, but I am led to think them, if not one and the same disease, at least very hard to separate. The cellulitis is very likely to, in fact always does, involve the neighboring folds of the peritoneum.

This woman is 42 years old and married. She has had no children, and has suffered from a great deal of dysmenorrhœa at each monthly period. Now, what do these two things suggest? Why, a flexion of the neck of the womb. She tells me that she has been suffering in this way ever since she was seventeen years old. Early in her eighteenth year she went to a doctor for the dysmenorrhœa, and he did something to enlarge her cervical canal, which operation greatly relieved her. She says, by the way, that she menstruates every three weeks.

Just about three weeks ago she had one day a very violent pain across her stomach. Soon after this there was a strong desire to defecate, which could not be satisfied. Since that time she has had constant pain and has always felt a tumor internally.

From what the woman tells me, I am inclined to put my first suspicions entirely out of the question, and say that I believe the patient has had a hemorrhage into Douglas's pouch; that immediately after the hemorrhage the pouch bulged, and so gave rise to the desire to defecate. She was sick a day or two after this pain, and the flow was very abundant. I can feel the tumor on the right side, and can move it slightly. Let me make a rectal and vaginal examination. First, let me pass my finger into her vagina. I feel two tumors, one behind and one before. The tumor in front is not painful. The diagnosis is puzzling. I think the tumor in front is the womb. I can very easily determine this point by passing a sound. Yes, my sound passes in and shows the womb to be of the normal size. But how about the other tumor. What is that? I can move it much more than I could were it cellulitis. Undoubtedly there has been an effusion of blood into Douglas's pouch, which effusion has produced a slight pelvic peritonitis. When blood is effused into, and confined by, a shut cavity, the peritonitis or septicæmia is never so universal as it otherwise would be. By passing my finger into the rectum I am able still more clearly to fix the seat of



the tumor, and at the same time note the fact that the rectum is greatly flattened. It requires some force to pass my finger through the flattened portion; now I have done so, and I find the tumor filling the position of the pouch, hard and immovable. We know that Douglas's pouch is lower on the left than on the right. In exact accordance with this fact I find that the tumor is lower on the left than on the right side.

Pelvic hæmatocele is sometimes exceedingly serious. What is the cause of it? At the time of the monthlies the Graafian follicle may burst before the fimbriated extremity of the Fallopian tube is in relation to receive it, and so blood escapes into the abdomen and gravitates into the pouch. Or there may have been a retention of fluid at the monthlies which was forced from the womb into the Fallopian tube, and so out into Douglas's pouch. Sometimes, you know, extra-uterine foetation occurs; in fact, there may be hemorrhage into Douglas's pouch from many causes. I believe that hæmatoma in Douglas's pouch occurs frequently without our knowledge.

How are we to treat this pelvic hæmatocele? It may happen, as I have just said, at a monthly period, and is attended with pain and collapse. Of course, we must make a vaginal or rectal examination as soon as we see the case. We find perhaps an obscure fluctuation in Douglas's pouch—the blood is lying loose there, and has not yet, it may be, entirely coagulated. The patient must be kept absolutely quiet, and astringent drinks, such as sulphuric acid, lemonade, etc., administered. Opium enough should be given to lull the pain and keep the patient thoroughly quiet. For a number of hours following the attack very slight nourishment should be given. Stimulants should be refrained from, and the patient kept as low as possible, until all immediate danger from peritonitis has passed away. If the woman is married, her vagina should be packed with ice; if a virgin, the ice had better be placed outside.

#### HABITUAL CONSTIPATION WITH FISSURE OF THE RECTUM.

There is supposed disease of the womb in this case. The woman complains of bearing-down pains and menorrhagia at her monthly periods, and of excessive leucorrhœa between times. No examination has been made thus far, and treatment has only been through the mouth. She has had very obstinate constipation. Costiveness of a very pronounced character is common in women. Men are generally glad to defecate when the desire comes, but women do everything to put off the act, from over-modesty or other causes. This statement holds good not only with reference to the bowels, but also as regards the bladder. You have no idea how often the most violent cystitis is produced by continually restraining the desire to urinate. This patient tells me that her bowels have not been moved freely for *seven years*, and are never moved except by the use of medicines. She says that defecation gives her so much pain that she puts it off as long as possible, and so never takes purgative medicine except once in ten days or so, when she buys an ounce or so of sulphate of magnesia.

I have had the woman put thoroughly under the influence of ether so as to allay spasm and relax all the muscles, and I shall now proceed to make a most careful examination. There is very evidently a post-uterine tumor of some sort or other. I think this will turn out to be a hardened collection of feces. I shall also probably bring to light one, if not more, fissures of the rectum. Let us see what goes on in the case of obstinate constipation. A species of fermentation

ensues, and a large part of the feces are reabsorbed, giving a yellowish tinge to the complexion and bringing on a chronic torpidity of the liver.

With my finger in the vagina I discover the womb pushed upward and forward, and behind it a hard tumor. I shall now have to make a thorough rectal examination; but, before doing so, it will be well to have my hand and fingers covered with carbolized oil. I am going to use my left hand for this dirty work (I shall probably have to remove the impacted feces by hand), and I want to enforce upon you all the necessity of working as well with your left hand as your right. Suppose I were called an hour hence to make an examination of a pregnant woman: I might produce the gravest results were I to use the same hand that I am now using, for I could not be absolutely certain that it was free from impurities. However thoroughly I might cover it with carbolized oil, and wash it afterwards with carbolized soap and water, some little taint might still remain, enough to cause septicæmia in a pregnant woman. So all of you should learn to use your left hand when occasion demands, so that the right hand may be kept for cleaner and more delicate work.

Now, what do I discover with regard to this post-uterine tumor? I can indent it slightly by pressure. It is probably a collection of hardened feces. Two years ago the woman had a child, and if there had been any impaction it would have been forced out then by the descending head. There are three points in the large intestines where obstruction may occur; it rarely, if ever, happens in the small intestines. Those three points are: the caput cæcum in the right iliac fossa, the sigmoid flexure, and the rectum.

Movements of the bowels in some women occur only after very long intervals. Dr. George B. Wood speaks of one case where there had not been a movement for the space of six months.

Where there is such stubborn constipation we generally find, upon examination, a fissure of the rectum. This always renders defecation exceedingly painful. Constipation would give rise to all the symptoms of which this patient complains. Thus, the menorrhagia and leucorrhœa would be caused by the congestion of the womb consequent upon the stasis of the blood in the vessels of the intestines. This might also produce fissures and bleeding piles. The frequent tenesmus may be very easily mistaken for bearing-down pains.

I am going to set to work and break down and remove this collection of hardened feces. This sometimes requires the handle of a spoon, but I think I can bring them down with my hand in the present instance. But, first let me see if I can discover any fissure of the rectum. To do this I pass one finger into the vagina and evert the lower portion of the rectum. There is a small fissure on the posterior wall. Fissures may be cured in two ways, viz.: 1. By cutting through the adjacent muscular fibres; and 2. By overstretching the sphincter ani. I much prefer the second method. To do this, insert your two thumbs into the rectum and pull them apart until the sphincter begins to yield, or you feel the rami of the ischia on each side. To do this requires the employment of considerable force.

Having stretched the sphincter, I am now better able to remove the feces. As far as I can reach I feel lumps of hardened feces. I am able to push them down by the aid of a finger in the vagina. Here is one lump which has entirely lost its fecal odor and seems to be covered with a sort of false membrane, so long has it been retained. In the present instance I am able to break up these lumps with my hands, but



in some cases I have found them so hard as to require the assistance of a pair of polypus forceps to remove them. I have now removed all the lumps, and am glad to see that the womb has gradually been falling back into place. Evidently, the tumor which she has felt for so long a time was nothing but hardened feces.

Upon what treatment shall I place this woman? To-night I shall order her ten grains of blue mass, and to-morrow morning two tablespoonfuls of castor-oil. I think that I have removed all the hardened feces, but if it turns out that the transverse colon is obstructed, she must be given a "gravity injection" filling up the entire lower bowel. Of course, this must not be given while under ether, or we should have no guide as to the quantity of water injected, and thus might inject so much as to burst the bowel.

As regards after-treatment, the patient must be taught to go to stool regularly every day, and to eat certain kinds of food only. For medicine, I shall order the following prescription:

R. Ext. colocynth. comp. . . . . gr. ij.  
 Pulv. rhei . . . . . gr. i.  
 Ext. belladonna . . . . . gr. ʒ.  
 Ext. hyoscyami . . . . . gr. ss.

M. et in pil. No. 1 divide.

S.—To be taken at bedtime.

In some cases  $\frac{1}{10}$  of a grain of strychnia may be added to the above with advantage. Iron must not be employed at present, as it tends to constipate. As regards local treatment, I shall advise the patient to rub her groins and abdomen with a flesh-brush or rough bag of camel's hair. I want here to say a word in strong recommendation of the treatment known as "massage." While under this treatment, one of whose items is a daily, painstaking, kneading of the muscles, I have even been able to administer iron without constipating. Indeed, during the second and succeeding weeks of the method by "massage," I have noticed a considerable tendency to diarrhoea. I think that the above-mentioned methods of treatment will relieve the woman's torpid liver and congested womb.

## Progress of Medical Science.

**SLEEPLESSNESS AND ITS TREATMENT.**—Dr. Ainslie Hollis, in writing on this subject, maintains that, although the quantity of blood in the brain is diminished during sleep, this diminution is not the sole cause of slumber, for we may have the former without the latter. An increase in the cerebral blood-supply, however, may produce wakefulness, as in the paresis of the cerebral vaso-motor nerves from exhaustion. Sense impressions have the same effect by the continual stimulation of the higher nervous centres. An increase in the velocity of the blood-current through the brain is a frequent cause of wakefulness, as in the irritable and hypertrophied heart. The wakefulness of anæmia is ascribed by Willemin to changes in the nervous elements of the brain, and a consequent modification of the circulation therein.

The treatment of wakefulness he classifies under two heads:

1. The induction of natural sleep.
2. The production of narcosis, or artificial rest.

One of the most efficient means of inducing natural sleep is the application of mustard plasters to the abdomen. According to Schüler, this produces first

dilatation, and subsequently contraction of the vessels of the pia mater; changes due to the constriction or dilatation of the peripheral current-areas of the skin. Preyer, of Jena, advocates the administration of a freshly made solution of lactate of soda, or of some milk, or whey, on the hypothesis that sleep may be induced by the introduction of the fatigue products of the body. Where the insomnia depends upon brain exhaustion, Dr. Hollis recommends the administration, just before bed-time, of a tumblerful of hot claret and water, with sugar and nutmeg. The alkalies and alkaline earths are useful when acid dyspepsia is associated with the insomnia. Electricity has been used in the paresis of the vaso-motor nerves due to an overworked brain. In hot weather, sprinkling the floor of the sleeping apartment with water lessens the irritant properties of the air, adding much to the comfort of the sleepers; possibly the quantity of ozone is at the same time increased.

The artificial rest obtained by the use of narcotics seems to be due to a direct interference with the functional activity of the nervous system. Dr. Hollis does not consider the bromides to possess hypnotic properties, although they undoubtedly act as sedatives on the nervous system, and as such may occasionally induce sleep.—*The Practitioner*, Dec., 1877.

**BEARINGS OF CHRONIC DISEASE OF THE HEART UPON PREGNANCY AND PARTURITION.**—Dr. Angus Macdonald read a paper on this subject before the Obstetrical Society of Edinburgh, in which he deduced the following conclusions:

1. Chronic heart disease constitutes a grave contraindication to marriage, more especially if it assumes the form of anything approaching to severe stenosis of the mitral, or to serious aortic incompetency; in such cases, we ought, if consulted, to dissuade from marriage.

2. There is much less danger in the case of mitral insufficiency pure and simple. But still the risk is even then considerable.

3. In all, when consulted, we ought not to give our sanction to marriage, if in chronic heart disease there are any serious symptoms of cardiac disturbance present, such as attacks of dyspnoea, breathlessness, palpitation on exertion, hæmoptysis, etc., and this injunction ought to be the more imperative the younger the patient, and the more recent the acute disorder which has given rise to the chronic lesion.

4. Such patients as are married and have chronic heart disease, ought not to be allowed to suckle their children, as that appears to tend to keep up the cardiac hypertrophy, and increase the risks likely to arise from the defective heart.

5. All possible causes of cold and all severe exertion should be avoided during the pregnancy, if possible, and more particularly during the latter months of it.

6. Premature labor should seldom or never be recommended, because it is so much more likely to do more harm by disturbing the action of the heart and the condition of the lungs, than any good it might produce by terminating the evil effects of the pregnancy. It is to be remembered that relief of symptoms is not certain after delivery, or anything like certain.

7. The only conditions which seem to warrant the induction of premature labor, are the presence of influences which unduly distend the abdomen, and thus keep the diaphragm in a state of continuous elevation.

8. The same careful principles of management

ought to guide us in the case of a patient with chronic heart disease during pregnancy and the lying-in period, as in any other state of the system, similarly complicated with heart disease.

9. In almost all the cases I have met with, chloroform has been given, and apparently with benefit during delivery. If carefully administered, I think it cannot but be useful in all cases.

10. All legitimate means ought to be used to lessen the effects of the down-bearing efforts, and therefore the judicious and timely application of forceps or of turning is extremely important. In cases of a large amount of liquor amnii, timely rupture of the membranes is calculated to be of great service, as it allows the diaphragm to descend, and thus lessens the embarrassment of the lesser circulation.—*The Obstetrical Journal of Great Britain and Ireland*, November, 1877.

**DYSPEPSIA.**—In a communication to *The Practitioner* for December, 1877, T. Lauder Brunton, M.D., F.R.S., treats the subject of dyspepsia in an original and interesting manner. For the physiology of the digestive act, and the pathology of the affection in question, he has drawn largely on Dr. Beaumont's reported observations on St. Martin. He treats his subject under two heads, transient and chronic indigestion, including under the first head subacute gastritis, and under the second, chronic gastritis and atonic dyspepsia. Transient indigestion, such as Dr. Beaumont has shown is accompanied by red patches and abrasions of the gastric mucous membrane, may be caused by *a*, an excessive quantity of food; *b*, an improper quality of food; *c*, mechanical chemical qualities of food. The two first causes act mechanically, the third chemically, either through some irritant property of the substance ingested, or through the production of some irritant substance after ingestion, as of butyric acid from the decomposition of fat. This state will pass away under the use, for a short time, of nonirritating food in small quantities, but recovery is materially hastened by the administration of a cathartic. Subacute gastritis, Dr. Brunton attributes, among other causes, to the effect of draughts. In the treatment he recommends the use of bismuth and magnesia, combined, if the vomiting is excessive, with hydrocyanic acid and bromide of potassium. If the pain at the epigastrium be severe, a warm poultice, or even a mustard plaster should be applied. In the treatment of chronic gastritis he recommends very highly the use of bicarbonate of soda with some vegetable bitter. When given before meals the alkali stimulates the secretion of gastric juice, while the bitter is supposed to lessen the secretion of mucus. The symptoms of atonic dyspepsia are similar to those of chronic gastric catarrh, with the exception of the epigastric pain and tenderness, and the tongue, instead of being red, or covered with fur through which enlarged papillae project, is rather pale, flabby, moist, and marked with the teeth at the edges. This condition depends upon weakness of the nervous and circulatory systems. Alkalies and bitters are here also useful, but in addition we must attend to the general condition of the patient, and in these cases strychnia or nuxvomica is a most useful adjunct, increasing as it does the excitability of the reflex centres.

**ETIOLOGY OF GOITRE.**—Dr. Mackenzie considers that the etiology of endemic goitre must be looked for in the geological formation of the territory in which the disease is found. His theory is that the disease depends upon some poison, as yet undetermined,

which is absorbed through the agency of the drinking water. In support of this, he quotes Sir Thomas Watson, McClelland, Dr. St. Lager, Mr. George Lebour, and others, who all maintain the agency of the water, the two last pointing out sulphate of iron as the offending ingredient, while McClelland claims that distinction for the salts of lime and magnesia. Dr. Mackenzie has confined his observations to Great Britain, and, while he does not feel inclined to accept sulphate of iron as the poison for which he is looking, he agrees with Dr. St. Lager in saying that the disease depends upon some of the metalliferous earths. The poison, he continues, has been traced to the soil, the water has been proved to be the vehicle of the poison, and it now only remains to isolate that poison. It may be that goitre is due to some metal or salt with which we are already acquainted, or it may be that spectrum analysis will bring to light some new substance which is the poison so long sought in vain.—*Medical Examiner*, October 25, 1877.

**EXCISION OF THE KNEE-JOINT.**—Prof. Fenwick, of Montreal, claims that excision of the knee is an operation of greater magnitude than amputation at the lower third of the thigh, statistics showing the mortality to be 27 per cent. in the former, against 22 in the latter. In children the discrepancy is still greater. The removal of the epiphyses and consequent loss of growth in the length of the limb is another drawback to the operation in children. The existence of tubercle of the lung, or of extensive disease of the heart or kidneys, or of any of the important viscera, are contra-indications to excision of the knee-joint. Prof. Fenwick agrees with Mr. Cadge in deeming it useless to excise the knee for disease of the synovial membrane, and quotes Mr. Price, who records twenty-one cases in which the operation was performed for this cause, which were all unsuccessful. Acute suppuration of the joint is, as a rule, unfavorable to excision, although, it is granted, exceptions may occur. From the records of many British surgeons it would appear that in acutely painful articular disease, those cases in which the cartilages and bones are affected are most favorable for excision, and in selecting this operation its advocates recommend its early performance. In military practice the operation is not advocated; the records of our late war show eleven cases, with only two recoveries. Prof. Fenwick then relates the histories of thirteen cases in which the operation was performed for chronic disease of the knee-joint at the Montreal General Hospital. Of these cases nine were cured, one was doubtful, one died, and in two amputation was subsequently performed.—*Transactions of the Canada Medical Association*.

**THE DETECTION OF PARTICLES OF HEPATIC STRUCTURE IN ABSCESS OF THE LIVER.**—Prof. Fenwick urges the examination of the pus from abscesses in the hepatic region as a means both of diagnosis and of prognosis. If the quantity of hepatic substance is large, it may be detected by simply shaking up the pus with distilled water, and examining the precipitate. But if the ulcerative process is going on but slowly, and the hepatic substance is present, in the discharge, in but small quantities, it may be necessary to add a few drops of ammonia to the water, and thus liquefy the pus before the presence of liver-cells may be satisfactorily determined. The abundance of these cells will indicate the activity of the destructive process, and the probability of recovery.—*The Lancet*, November 17, 1877.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE MEETING OF THE STATE MEDICAL SOCIETY.

THE meeting of the Medical Society of New York is always an event in which the physicians throughout the State are specially interested, and in which the profession of the country have some concern. As a society it is a model of its kind, and is perhaps more representative in character for the area over which it extends its usefulness than any similar organization elsewhere. The system of government is probably as perfect as can be found in any scientific society, at the same time the details pertaining thereto are not magnified into importance at the expense of strictly scientific work. In fact, far from the latter being the case, the business detail is entrusted to committees, the Society being called upon merely to approve or disapprove the recommendations. So far at least its example is a worthy one for sister societies throughout the country. In regard to the number and character of its scientific communications, it is equal, if not superior to any. But these are acknowledged facts, and are repeated here merely for the sake of introducing some general remarks upon this year's proceedings. As a meeting, the recent one was a success—that is to say, the attendance was good; there were a number of scientific papers presented, and the usual sessions of the Society were well filled with business up to the hour of adjournment. Compared with the previous year, however, the papers were not so numerous nor so well selected, but there was abundance of opportunity for necessary discussion.

It was a matter of regret that the legality of the meeting was not assured before the time appointed for it; not so much on the ground that the proceedings in a medical sense were any the less valuable, but that the correction of a foolish and stupid error was made necessary in open meeting.

We trust, however, that the matter will be fairly settled by the next regular session, and that the time

for meeting will be fixed definitely and permanently. There was no other course left for the Society than to call the present meeting an adjourned one, and formally adopt its proceedings at the next regular Session in June. All the trouble could have been avoided by a simple notice of a change a year in advance of the time when it should have been consummated. That this was not thought of last year, when the time of the meeting was changed, is a reflection upon the ordinary astuteness of those members who were conversant with the provisions of the statute, and who either engineered the innovation or tolerated its being made. Let us, however, congratulate the friends of the Society that they have at last touched bottom, and have a promise of a sure foundation for all rulings upon this particular point in the future.

The absence of the President-elect was a misfortune under the circumstances, and helped to foster in the minds of many a distrust in the ultimate success of the meeting. The duties of the office were, however, performed by the Vice-president, who, at the disadvantage of being called on in an emergency, acquitted himself to the satisfaction of all. The absence of the customary presidential address was not generally deplored, and we believe that the time is not far distant when it will be dispensed with altogether, and the time allotted to it devoted to the more strictly scientific business of the Society.

The questions of ethics which came up for adjudication were of some importance. The committee to whom such questions were referred acted wisely and well. In regard to the communication from the County Society, relating to the more explicit interpretation of certain portions of the Code, its action was judicious. It very properly declined to define the law unless some particular case came before it, appealing from a definite decision of a County Society. In other words, the committee did not consider itself competent to prejudge any hypothesized case.

The decision upon the resolution of the Niagara County Society was a literal interpretation of the sentiment of the profession, and will stand on its own merits. We wish we could say as much for the action regarding the erasure of the name of a certain food company from a paper read before the Society. The reason for this course was simply that the food manufactured by said company was patented by them. It does not appear that the article of the Code which refers to the use of patents had anything to do with the particular question at issue. The particular food was recommended by the author of a paper as superior to all others of its kind for alimentation in certain diseases, and the process of its manufacture was described. Although all apparently acknowledged that the article was serviceable, yet because it was patented its name was expunged from the records. Viewed on general principles, this was pandering more to prejudice than to reason.

Every physician believes that it is derogatory to professional dignity "to hold a patent for any surgical instrument or medicine," or "to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them," but we are at a loss to see the application of these principles to the article under consideration. It is, in the first place, not a medicine, the process of manufacture is not a secret one, and its use is not restricted to the sick. In other words, it is merely an article of general commerce, and its manufacture is protected by a patent for purely commercial reasons. With patent medicines and patent mechanical appliances for the sick the case is so different as scarcely to need comparison.

The selection of the nominating committee, according to the new rule, was a practical success, and the suggestion to alter the statutes in accordance with said rule is eminently proper.

In conclusion, we cannot resist the temptation of congratulating the Society on its choice of president for the ensuing year. Dr. Roosa is a gentleman who has fairly won his present distinction, and cannot fail to perform the duties of his office to the satisfaction of all concerned.

#### MEDICAL CERTIFICATES IN THE DAILY PAPERS.

THE names of the medical gentlemen of this city, which have been so long attached to the certificates of mineral waters, published in the daily papers, have disappeared at last.

It is but fair to the gentlemen concerned, to state that the majority, if not all of them, soon after the RECORD drew attention to the matter, ordered their names to be withdrawn from the advertisements. The Medical Society of the County added its official recommendation to such a course, and helped, through its Committee of Ethics, to complete the work.

It appeared for a time, however, that the wishes of the writers of the certificates were not to be gratified, and that the mineral water company had determined to publish the certificates in spite of the protests. This, however, was not the case, for as soon as the matter was brought to the knowledge of the proprietors in London, orders were at once issued to remove the certificates from all but strictly medical publications. The company in so doing express a regret that their course heretofore should have been subjected to professional criticism, but state that the publication of medical certificates in the daily papers is common in Great Britain. While we admit the truth of this, we fail to see why this proves that such publications are proper. It is somewhat astonishing that such journals as the *Lancet*, the *British Medical Journal*, and the *Dublin Press and Circular* do not lend their powerful influences to the suppression of this subtle and dangerous form of quackery. The profession there are governed by the self-same code as,

ourselves, and are bound by the same obligations to each other. It is true, however, that the British Medical Association adopted the Code of Ethics of the American Medical Association only very recently, and it may not have had the opportunity of understanding its purport, or of applying its principles; but the official organ of the British Association, and the *Lancet*, have no excuse for such ignorance.

Now that the names of our own physicians have disappeared, the question arises as to the course which may be pursued by the County Society. This body has the subject under consideration, but in view of the circumstances of the case it will be hardly necessary now to do more than express the sense of the Society in the course pursued by the certificate-writers, which, if properly done, will be a censure in itself, and will prepare the way for the prompt discipline of all future transgressors of the Code. If the County Society gives its opinion explicitly on this point, there need be no trouble concerning the medical certificates in the daily papers in the future.

#### THE EYE AND EAR RELIEF OF ALBANY, NEW YORK.

WE have been assured that the circulars of the Eye and Ear Relief of Albany, to which reference was made in an article on Albany Ethics in a previous issue, were intended for the medical profession only, and that their circulation has been strictly limited to that body. We state this on the authority of Dr. Robertson himself, which is sufficient to place the statement, as a matter of fact, beyond question. Therefore, that portion of our remarks concerning advertising before the public is not based upon the facts as we understood them at the time of writing the article. We owe this to Dr. Robertson as a simple matter of justice to his motives, and make the correction with pleasure.

### Reports of Societies.

#### MEDICAL SOCIETY OF THE STATE OF NEW YORK.

*Seventy-Second Annual Meeting.*

HELD IN ALBANY, JANUARY 15, 16, AND 17, 1878.

TUESDAY, JANUARY 15TH.—FIRST DAY.—MORNING SESSION.

THE Society met, pursuant to adjournment, in Albany, at 11 o'clock A.M., and was called to order by the Vice-President, DR. A. L. SAUNDERS, of Madison County.

Prayer was offered by REV. RUFUS W. CLARK, D.D. VICE-PRESIDENT SAUNDERS alluded to the fact that circumstances had developed which rendered it necessary for him to discharge the duties of President. On the 20th of December he learned from Dr. Jenkins, the President-elect, that he would be unable to attend the present meeting. In the intervening time he had been unable to prepare any address. He would state, however, that the profession continued to advance both in this and other States. It was his earnest hope



that whatever mistakes might have been in the past should be met manfully, and in a manner becoming the medical profession.

#### COMMITTEE ON CREDENTIALS.

DR. SAUNDERS then announced the Committee on Credentials, as follows: Drs. N. C. Husted, E. H. Lyman, and H. N. Porter.

THE SECRETARY read a communication from Dr. Jenkins, in which he expressed his appreciation of the honor conferred in electing him as the presiding officer of the Society, but declined the acceptance of the office.

DR. PORTER, of Albany, the Treasurer, presented a communication from Dr. Jenkins, transmitting his check for \$25 as a donation to the treasury of the Society.

The letter containing the declination of Dr. Jenkins was received, and ordered to be placed on file.

The check was received with thanks, and its accompanying letter ordered to be placed upon record.

#### ANNOUNCEMENT OF COMMITTEES.

THE VICE-PRESIDENT then announced the following committees:

For *Committee on Arrangements*.—Dr. Wm. H. Bailey, Dr. Wm. Manlius Smith, and Dr. J. N. Northrop.

For *Business Committee*.—Drs. E. R. Squibb, William C. Wey, and D. B. St. John Roosa.

DR. C. H. PORTER offered a series of resolutions to the effect that only delegates and permanent members, who had registered and paid their dues, should be permitted to vote for members of the Nominating Committee in the several Senatorial district caucuses; that each caucus should select a Chairman and a Secretary, and that each Chairman should report the result of the caucus to the Society in writing. The resolutions were adopted.

A recess was then taken to enable the Committee to arrange the order of business.

On reconvening, after a lapse of twenty minutes, DR. BAILEY, Chairman of the Committee on Arrangements, reported the following members by invitation: Drs. G. T. Stevens, Wm. H. Murray, John Thompson, E. Van Slyke, D. H. Cook, and W. L. Purple, Albany; A. E. McDonald, of New York; P. B. Collier, of Valatie; and Wm. D. Lamb, of Lawrence, Mass., Delegate from the Massachusetts State Medical Society.

#### COMMITTEE ON ETHICS.

THE VICE-PRESIDENT then announced the following Committee on Ethics: Drs. William C. Wey, D. B. St. John Roosa, and James Chapman.

DR. E. R. SQUIBB, Chairman of the Business Committee, then made some remarks as to the legality of the present meeting.

DR. GOULEY moved that the matter be referred to the Business Committee, with power. The motion was carried.

#### DUDLEY OBSERVATORY.

An invitation was received from the Directors of the Dudley Observatory, requesting the Society to visit that institution. The invitation was accepted with thanks, and between 7½ and 8½ o'clock Wednesday evening fixed upon as the time.

#### LAW REGULATING FEES FOR EXPERT TESTIMONY.

DR. DIMON, of Cayuga Co., asked the advice of the Society as to the proposition to secure the passage of

a law giving proper compensation to medical experts when summoned as witnesses.

The matter was referred to the Business Committee.

#### DIPLOMA CONFERRED.

The Business Committee announced a communication from the Censors of the Western District, with reference to granting a diploma to ALPHONSE DAGENAIS.

DR. C. M. ALLIN, of New York, moved that a diploma be granted in accordance with the unanimous recommendation of the Censors, and that it be signed by the Vice-President and the Secretary. Carried.

The Society then adjourned, to meet at 3 P.M.

#### FIRST DAY.—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by the Vice-President.

#### COMMUNICATIONS FROM COUNTY SOCIETIES.

Under this head, DR. H. G. PIFFARD, of New York, presented a communication from the Medical Society of the County of New York, making inquiry with reference to the meaning of certain sections of the Code.

On motion, made by DR. C. M. ALLIN, of New York, the communication was referred to the Committee on Ethics.

#### REPORT OF COMMITTEE ON PUBLICATION.

The report of the Committee on Publication was read by DR. E. R. SQUIBB, of Brooklyn. Among the recommendations made by the Committee were the following:

That the amount charged for the Transactions be the publisher's price until the volumes were four or more years old, when, if more than 100 copies remained unsold, they might be disposed of at fifty cents per volume; that when such editions were reduced below 100 copies the price should be raised to one dollar; that each county society should be required to take annually a number of copies equal to five times the number of delegates such county society sends to the State Medical Society; and that the dues of permanent members and delegates should be paid at the beginning of the year.

The report, as signed by Dr. Wyckoff, the Secretary, and Dr. Squibb, and all its recommendations, was adopted.

#### COMMITTEE ON NOMINATIONS.

For *First Senatorial District*.—Dr. J. W. S. Gouley, of New York County.

For *Second Senatorial District*.—Dr. D. Guernsey, of Dutchess County.

For *Third Senatorial District*.—Dr. M. H. Burton, of Rensselaer County.

For *Fourth Senatorial District*.—Dr. E. D. Ferguson, of Essex County.

For *Fifth Senatorial District*.—Dr. G. W. Cook, of Otsego County.

For *Sixth Senatorial District*.—Dr. J. H. Chittenden, of Broome County.

For *Seventh Senatorial District*.—Dr. Theodore Dimon, of Cayuga County.

For *Eighth Senatorial District*.—Dr. James Chapman, of Orleans County.

Reading of papers being next in order, DR. EUGENE BEACH, of Gloversville, reported a case of

#### PUNCTURED WOUND OF THE STOMACH. WITH RECOVERY.

The wound was two inches below the point of the sternum and almost exactly in the median line. There

were marked symptoms of collapse, the patient vomited blood and also passed blood by stool.

Two weeks after the occurrence of the accident the patient was up, and at the end of two months appeared entirely well. He had previously been a strong and healthy man.

DR. A. McLANE HAMILTON presented a

#### CONTRIBUTION TO THE STUDY OF AUDITORY EPILEPSY.

An illustrative case was reported. The paper will be published in a subsequent number of the Record.

It was discussed by Dr. Roosa, of New York.

#### PENILE FISTULÆ IN THE ANTE-SCROTAL REGION.

DR. ROBERT F. WEIR, of New York, read a brief paper upon the above subject, and illustrated it with colored plates.

The history of a successful operation was reported.

DR. GEORGE BAYLES, of New York, presented

#### A CLINICAL OBSERVATION RELATING TO VACCINATION DURING ATTACKS OF PERTUSSIS.

The conclusion reached was that vaccination exerted a favorable modification upon whooping-cough.

DR. CRONYN, of Buffalo, remarked that the influence of vaccination upon the course of pertussis had long been recognized, and that he had resorted more or less to it in the treatment of uncomplicated cases during the last thirty years.

#### REGISTRATION OF VITAL STATISTICS, AND METHODS TO BE ADOPTED TO SECURE DESIRED RESULTS.

DR. ELSHA HARRIS, of New York, read a paper relating to records of mortality and prevailing diseases. The paper was discussed by Drs. Furbeck, Squibb, and Harris.

DR. WM. H. BAILEY, Chairman of the Committee on Arrangements, announced the following members by invitation: Drs. Maurice J. Levi, C. S. Merrill, V. O'Leary, G. H. Newcomb, S. B. Ward, W. G. Tucker, Amos Fowler, J. B. Stonehouse, and Louis Balch, of Albany; Dr. H. H. Beecher, of Norwich, Chenango Co.; Dr. Chas. Hammon, of Schenectady; Drs. A. W. Shiland and R. H. Sabin, of West Troy; Dr. A. J. Long, of Whitehall, and Dr. A. W. Tupper, of Granville, Washington Co.; Dr. C. W. Adams, of Middleville, Herkimer Co.; Dr. E. W. Carmichael, of Sand Lake, Rensselaer Co.; Dr. Chas. E. Willard, of Catskill; Dr. F. S. Greene, of Coxsackie; Dr. Wm. T. White, of New York. The Society then adjourned, to meet at 8 P.M.

#### FIRST DAY.—EVENING SESSION.

The Society was called to order at 8 P.M. by the Vice-President.

#### REPORT OF THE WORKINGS OF THE INTERNATIONAL CONGRESS HELD AT GENEVA IN 1877.

DR. E. SEGUIN, of New York, presented, by invitation, the claims of priority of the American physicians in the movement for the introduction of more uniformity in physic and in pharmacy, and the culmination of this movement in the nomination of an international commission, to whose members all progress of the question must be communicated. Of the seven commissioners chosen, two are American, two French, one Swiss, another Norwegian; the secretary is Belgian; the president is a professor of surgery of Turin. It was to be hoped that the spirit of this commission would be truly international and progressive, and the American members were determined to give the claim of their compatriots all the promi-

nence it deserves before the International Medical Congress of 1879, which will meet in Amsterdam. The remarks and narrative of Dr. E. Seguin were received with the same earnestness with which he made them.

#### REPORT ON THE ANTISEPTIC SYSTEM.

DR. STEPHEN SMITH, of New York, made a report regarding the use of antiseptics in surgery after Lister's plan, and reported several cases.

The paper was discussed by Drs. Weir, of New York, Hutchinson, of Brooklyn, Minor, of New York, Chapman, of Orleans Co., Wolcott, of Utica, Cronyn, of Buffalo, and Squibb, of Brooklyn.

The discussion took the usual routine, and cases were cited in which remarkable recoveries had taken place without the use of the antiseptic system in its details.

#### RECEPTION AT THE DELAVAN HOUSE.

An invitation was extended to the State Medical Society, by the Albany County Medical Society, to attend a reception at the Delavan House, Wednesday evening, at 9 o'clock.

The invitation was formally accepted by the Society, after which an adjournment was made, to meet on Wednesday, at 10 A.M.

#### WEDNESDAY, JANUARY 16TH—SECOND DAY—MORNING SESSION.

The Society was called to order at 10 A.M. by Vice-President Saunders. Prayer was offered by Rev. John McClellan Holmes, D.D. The minutes of the previous day were read and approved.

#### MEMBERS BY INVITATION.

DR. BAILEY, Chairman of the Committee on Arrangements, announced the following names of members by invitation: Drs. O. D. Ball, E. B. Tefft, Harriet A. Woodward, R. J. Bullock, of Albany; Dr. Maurice Perkins, of Schenectady; and Dr. Meigs Case, of Oneonta.

DR. J. G. RICHARDSON, of Philadelphia, was introduced as delegate from the Pennsylvania State Medical Society, and made an appropriate response.

#### THE GOVERNOR'S RECEPTION.

DR. BAILEY also announced that Governor Robinson had expressed a desire to see such of the members of the Society as might be pleased to favor him with a call on this, the regular evening in the week for his receptions.

#### REPORT OF TREASURER.

DR. PORTER presented his report, which was referred to an auditing committee, composed of Drs. Govan, of Rockland Co., and Burr, of Broome Co.

The report showed that the finances of the Society were not in the most favorable condition, and Dr. Squibb remarked that the sooner the members and delegates became acquainted with the fact the better. Unfortunately, the receipts from the sale of the Transactions did not meet the expense of publication. It was hoped, however, that the provision made with reference to the disposal of books hereafter might replenish the treasury in a satisfactory manner, as far as the publication of the Transactions was concerned. The Librarian's report was read by the Treasurer.

#### REPORT OF COMMITTEE ON ETHICS.

DR. WEY, chairman of the committee, reported upon the communication sent up from the New York County Medical Society, to the effect that Sections 3



and 4 of Article 1, "On the duties for the support of professional character," and also Section 1 of Article 4, "Of the duties of physicians in regard to consultations," were so clear and explicit that they required no special explanation, and therefore the committee was disinclined to offer any comment, inasmuch as there was no evidence of specific violation mentioned; and that county societies were clothed with ample power to require submission, to settle all individual relations with its members, and to inflict salutary censure and penalty. From the action of county societies an appeal might be made to the State Medical Society. The report was unanimous.

On motion made by Dr. SQUIBB the report was, without discussion, accepted and adopted.

#### CODIFICATION OF THE BY-LAWS.

The report of Dr. HUTCHINS, of Brooklyn, who was unavoidably absent, was read by Dr. Hutchinson, of Brooklyn. It was accepted and adopted, and will appear in the next volume of Transactions.

#### CHANGE OF TIME FOR HOLDING THE ANNUAL MEETING— PROGRAMME FOR CORRECTING THE ERROR MADE WITH REFERENCE TO HOLDING THE PRESENT MEETING.

The Business Committee reported that it was desirable to retrace and correct steps made in error relative to the present meeting, and offered resolutions to the effect, (1.) That this meeting, commencing January 15, 1878, is hereby declared to be an adjourned meeting, from June, 1877; (2.) That an annual meeting be held in Albany on the date for holding the next annual meeting—the third Tuesday in June, 1878—when by a quorum, consisting of the presiding officer of this meeting, the Secretary, the Treasurer, and twelve other permanent members or delegates, the transactions of the present meeting shall be ratified.

The report and resolutions were unanimously adopted.

The Business Committee then reported a resolution making provision for changing the time of holding the annual meeting of the Society to the first Tuesday in February. Dr. Goff, of Madison Co., offered an amendment that the annual meeting be held on the third Tuesday of January. Amendment lost. The original motion was then carried by a large majority.

#### REPORT FAVORING THE PASSAGE OF A LAW RELATING TO EXPERT TESTIMONY.

The Business Committee reported a resolution recommending the passage of a law securing proper compensation for expert testimony.

The resolution was adopted, and on motion made by Dr. Mosher a committee of three, with Dr. Dimon, of Cayuga, as chairman, was appointed to represent the Society in efforts to secure the passage of such a law. The Committee consists of Dr. Dimon, Dr. H. D. Didama, of Syracuse, and Dr. J. V. Kendall, of Baldwinsville.

The Committee on By-Laws made a report, which was referred to Dr. Hutchins, of Brooklyn. The report related to requirements of medical students before commencing the study of medicine.

#### COMMITTEE ON HYGIENE.

The Business Committee reported that Dr. Stoddard, Chairman of the Committee on Hygiene, was unable to be present, on account of the death of Dr. Dean, of Rochester.

#### DEATH OF DR. DEAN.

Dr. ROOSA presented a resolution, to be sent by

telegram to the family of Dr. Dean, expressing the profound sympathy of the profession in their irreparable loss.

The resolution was unanimously adopted.

#### DEATH OF MEMBERS.

Dr. SQUIBB announced the death of Dr. Hiram Corliss and Dr. L. B. Cobb.

#### SPECIAL ORDER OF BUSINESS.

The resolution introduced at a former meeting by Dr. E. M. Moore, of Rochester, regarding the examination of medical students preparatory to receiving the degree of Doctor in Medicine, was to be the special order for the hour reached; but, owing to the absence of Dr. Moore, on account of the death of Dr. Dean, the committee was continued and the subject passed over until next year.

#### THE AUDITING COMMITTEE

reported that the Treasurer's account had been found to be correct.

Report adopted and committee discharged.

#### MISCELLANEOUS BUSINESS.

DRS. H. C. HENDRICK, F. D. BEEBE, and J. C. NELSON were appointed a committee to invite members of the regular profession, who were members of the Legislature, to attend the sessions of the Society.

Reading of papers being next in order, Dr. WALTER B. CHASE, of Windham, read upon

#### LACERATION OF THE CERVIX UTERI AS A FACTOR IN UTERINE DISEASE.

The paper was discussed at length by Drs. Fordyce Barker, A. Jacobi, and H. T. Hanks, of New York.

#### DISTRICT SCHOOL HYGIENE.

Dr. JEWETT, of Canandaigua, read a brief paper upon the above subject, which was referred.

#### HONORARY MEMBERS.

Communications from Dr. Louis Necker, of Paris, France, and W. A. F. Brown, of Dumfries, Scotland, acknowledging election to honorary membership, were read by the Chairman of the Business Committee.

The Society then adjourned, to meet at 3 P.M.

#### SECOND DAY.—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by the Vice-President.

The first order of business was the reading of papers.

#### COMMITTEE ON HYGIENE.

Dr. A. N. BELL, of Brooklyn, read a portion of the report of the Committee.

The report on hygiene, from the Medico-Legal Society of New York City, and presented by Dr. C. S. Wood, was called for, but no response was made.

Dr. MAURICE PERKINS, of Schenectady, read a brief and valuable paper upon the

#### ESTIMATION OF UREA.

IMPROVED METHOD OF DETECTING LEUKÆMIA IN ITS EARLY STAGES, AND FOR ENUMERATING WHITE BLOOD-GLOBULES IN DISEASE GENERALLY.

Dr. JOSEPH G. RICHARDSON, of Philadelphia, read an interesting paper upon the above subject, which will be published in a future number of the RECORD.

On motion, made by Dr. N. C. HUSTED, the thanks of the Society was extended to Dr. Richardson for his

valuable scientific and voluntary contribution to the Transactions.

#### ISCHEMIA OF THE RETINA.

DR. THOS. R. POOLEY, of New York, read a paper upon the above subject. It was discussed by Dr. Roosa, of New York.

DR. ARTHUR MATTHEWSON, of Brooklyn, read a paper on

#### DIAGNOSIS OF INTRA-CRANIAL TUMORS, WITH REPORT OF CASES.

#### MEMBERS BY INVITATION.

DR. BAILEY reported the following names of members by invitation:

Drs. C. E. Nichols and Wm. S. Cooper, of Troy; W. H. T. Reynolds, of Albany; J. L. Archambeault, of Cohoes; Mary Dubois and H. Burdell, of Albany; James D. Jones, of Schenectady; James R. Leaming and E. D. Hudson, Jr., of New York; G. L. Ullman, L. C. B. Graveline, P. J. Keegan, S. A. Russell, and Thos. M. Trego, of Albany; and Eli Fox, of Mohawk, Herkimer.

#### HYDROBROMIC ACID.

DR. E. R. SQUIBB, of Brooklyn, read a concise note upon the above subject.

DR. GOODWILLIE, of New York, read a paper upon THE SALIVARY GLANDS—SOME OF THEIR DISEASES AND TREATMENT; ILLUSTRATED BY WAX MODELS.

The history of a case in which a salivary fistula was healed, was reported.

DR. BENEDICT, of Syracuse, reported a case of INTUSSUSCEPTION, WITH SLOUGHING AND EXTRUSION OF A PORTION OF THE SMALL INTESTINE.

The woman recovered, and subsequently died, when it was found that separation occurred about nine inches above the ileo-caecal valve.

DR. GIBERSON, of Brooklyn, presented some SURGICAL NOTES, WITH A CASE OF NERVE-STRETCHING IN SCIATICA.

The nerve was cut down upon, the finger passed beneath it, and sufficient lifting done to raise the body from the table. Recovery good. The case had resisted all ordinary treatment.

The surgical notes related to operations under the influence of nitrous oxide.

A somewhat lengthy discussion followed regarding the comparative merit of the different anæsthetics. It was participated in by Drs. Matthewson, Goodwillie, Roosa, Squibb, Wey, Wolcott, Benedict, and Giberson.

The Society then adjourned, to meet at 10 o'clock on Thursday morning.

#### WEDNESDAY EVENING.

After visiting Dudley Observatory, the members of the Society and invited guests were handsomely entertained at the Delavan House, by the Medical Society of the County of Albany.

#### THURSDAY, JANUARY 17TH.—THIRD DAY.

The Society was called to order at 10 A.M., by Vice-President Dr. A. L. Saunders, and prayer was offered by Rev. Wm. S. Smart, D.D.

The minutes of the previous day were read and approved.

DR. BAILEY, of the Committee on Arrangements,

reported the name of Dr. M. G. Planck, of Schenectady, as member by invitation.

#### COMMUNICATION FROM NIAGARA COUNTY—ACTION OF THE SOCIETY WITH REFERENCE TO THE CODE OF ETHICS.

DR. SQUIBB, from the Business Committee, announced the reception of a communication from Niagara County, which had inadvertently escaped notice at the last meeting of the Society. The communication contained a request that the State Medical Society should take action upon an accompanying resolution, for the purpose of declaring an authoritative decision regarding certain questions connected with the Code of Medical Ethics.

The resolution was as follows:

*Resolved*, That it is a breach of the Code of Medical Ethics, for a member of a county society which is entitled to send delegates to the State Medical Society, and who is in the *general practice* of his profession, to use upon his sign or bill-heads, or in advertisements, the words "Eye and Ear Infirmary," or "Oculist and Aurist."

DR. BURR, of Binghamton, moved that the resolution in the communication be adopted as the sense of the Society.

DR. CHAPMAN, of Orleans, seconded the motion.

DR. SQUIBB explained that the passage of the resolution simply affirmed the opinion of the Society, that such terms as those referred to should not be used by a member while in *general practice*.

DR. WM. H. BAILEY, of Albany, moved to amend by striking out the words "general practice," believing that the use of such words as referred to in the resolution was wrong for the specialist as well as the general practitioner.

DR. COOK called for the reading of the Code upon the point in question.

DR. SQUIBB read sections relating thereto, and expressed the opinion that the words "Eye and Ear Infirmary" implied the *treatment of the poor gratis*, and that the words "Oculist and Aurist" referred to the treatment of *special diseases*.

The passage of the resolution was for the purpose of giving general information to the profession in the State, and was not the action of the Society upon a given case.

The amendment offered by Dr. Bailey was unanimously adopted; *aff.*, 45.

The original resolution, as amended, was then unanimously adopted; *aff.*, 46.

#### CENSOR TO THE UNIVERSITY OF SYRACUSE.

DR. WM. H. BAILEY, as Censor to the University of Syracuse, presented his report, which was accepted, and ordered upon the minutes.

#### REPORT OF COMMITTEE ON NOMINATION.

DR. E. R. FERGUSON, Essex, Secretary of the Committee, read the following report:

*For President*—Dr. D. B. St. John Roosa, of New York.

*For Vice-President*—Dr. Judson C. Nelson, of Truxton, Cortland Co.

*For Secretary*—Dr. Wm. Manlius Smith, of Manlius, Onondaga Co.

*For Treasurer*—Dr. Charles H. Porter, of Albany.

*For Censors*—Southern District: E. R. Peaslee and E. Eliot, New York, and E. H. Parker, of Poughkeepsie. Eastern District: H. B. Whiton, Troy; J. L. Babcock, Albany; J. P. Sharer, Little Falls. Middle District: M. M. Bagg, Utica; G. W. Cook,



Otego; C. G. Bacon, Fulton. Western District: C. C. Wyckoff, Buffalo; H. Jewett, Canandaigua; C. Green, Homer.

*Committee on Correspondence.*—First District, T. A. Emmet, New York; Second District, D. Guernsey, Amenia; Third District, R. H. Ward, Troy; Fourth District, T. B. Reynolds, Saratoga; Fifth District, S. G. Wolcott, Utica; Sixth District, J. G. Orton, Binghamton; Seventh District, H. B. Wilbur, Syracuse; Eighth District, C. E. Rider, Rochester.

*Committee on Prize Essays.*—W. W. Ely and E. M. Moore, Rochester; T. F. Rochester, Buffalo.

*Committee on By-Laws.*—Wm. C. Wey, Elmira; Wm. Manlius Smith, Manlius; and Wm. H. Bailey, Albany.

*Committee on Publication.*—H. D. Didama and Alfred Mercer, of Syracuse; Wm. Manlius Smith, Manlius; C. H. Porter, Albany.

*Committee on Hygiene.*—E. V. Stoddard, Rochester; C. R. Agnew, New York; J. G. Orton, Binghamton; M. H. Burton, Troy; D. Guernsey, Amenia; E. Hutchinson, Utica; H. Jewett, Canandaigua.

*Permanent Members.*—First District: John H. Hinton, J. R. Leaming, and D. B. St. John Roosa, New York, and C. H. Giberson, Brooklyn. Second District: Levi Lounsbery, Stone Ridge, Ulster Co.; P. R. H. Sawyer, Bedford, Westchester Co. Third District: F. B. Parmelee, Greenbush; J. C. Hutchinson, Troy. Fourth District: M. H. Ballou, Mechanicsville, Saratoga Co.; A. J. Long, Whitehall, Washington Co. Fifth District: J. K. Lanning, Fly Creek, Otsego Co.; H. G. Ducois, Camden, Oneida Co. Sixth District: G. W. Avery, Norwich; J. H. Chittenden, Binghamton. Seventh District: J. W. Palmer, Victor, Ontario Co.; W. W. Porter, Syracuse. Eighth District: James Chapman, Medina, Orleans Co.; Wm. Gould, Erie.

*Honorary Members.*—Clarkson T. Collins, Great Barrington, Mass.

*Eligible to Honorary Membership.*—L. Auguste Mercier, Paris, France; Christopher Heath and J. C. Bucknill, London, England; H. J. Bowditch, Boston, Mass.; J. S. Billings, U. S. Army.

#### DELEGATES.

*To the Medical Society of the State of Pennsylvania.*—G. L. Halsey, Unadilla, Otsego Co.; Wm. C. Wey, Elmira.

*To the Massachusetts Medical Society.*—H. P. Farnham and J. L. Banks, New York.

*To the Connecticut Medical Society.*—N. C. Husted, New York; E. M. Lyon, Plattsburg; R. F. Weir, New York.

*To the Medical Society of New Jersey.*—H. S. Crandall, Leonardsville, Madison Co.; J. C. Nelson, Truxton; Wm. Govan, Stony Point.

*To the New Hampshire State Medical Society.*—B. F. Smith, Mt. Upton, Chenango Co.

*To the Vermont State Medical Society.*—C. E. Nichols, Troy; W. H. Ballou, Saratoga Co.; A. J. Long, Washington Co.

*To the Rhode Island Medical Society.*—A. L. Saunders, Brookfield, Madison Co.; C. M. Allin, New York.

*To the Canadian Medical Society.*—J. N. Northrip, Albany; E. D. Ferguson, Dannemora, Clinton Co.; E. F. Edgerly, Port Henry, Essex Co.; B. F. Sherman, Ogdensburg.

*To the Medical Society of the State of Ohio.*—J. R. Pooley, New York; Wm. H. Leonard, East Worcester, Otsego Co.

*Censor for the College of Medicine of Syracuse University.*—J. S. Bailey, Albany.

*Delegates to the American Medical Association.*—C. S.

Wood, T. Addis Emmett, J. M. Minor, and J. W. S. Gouley, New York; A. N. Bell, Kings; G. J. Fisher and J. Foster Jenkins, Westchester; E. H. Parker, Dutchess; M. H. Burton and R. B. Bontecue, Rensselaer; C. H. Porter, Albany; John P. Gray, Oneida; G. W. Cooke, Otsego; Theodore Dimon, Cayuga; Geo. Burr, Broome; H. Jewett, Ontario; H. C. Hendricks, Cortland; S. G. Wolcott, Oneida; Leroy McLean, Rensselaer; A. J. Long, Washington; J. Mortimer Crow, Jefferson; J. H. Chittenden, Broome; A. Van Der Veer, Albany; T. B. Reynolds, Saratoga; E. M. Moore, Monroe; J. C. Hutchinson and E. R. Squibb, Kings; E. Harris and Stephen Smith, New York; Wm. C. Wey, Chemung; E. R. Hun, Albany; T. F. Rochester, Erie; W. S. Ely, Monroe; A. Flint and F. H. Hamilton, New York; F. Hyde, Cortland; D. B. St. John Roosa, New York.

#### CERTAIN RECOMMENDATIONS.

The Committee on Nomination also recommended Drs. C. L. Stiles, of Tioga, and W. S. Cooper, of Rensselaer, as eligible to permanent membership.

On motion the report was accepted.

Dr. Cook moved that the portion of the report relating to eligibility to permanent membership be laid upon the table.

Dr. SQUIBB remarked that the effect of Dr. Cook's motion would be, if it prevailed, to omit the question from the report, and place it in a position from which it could be raised at any future time, if the Society so ordered.

The omission of this portion of the report was regarded as a simple compliance with the by-laws of the Society.

Dr. Cook's motion prevailed by a vote of affirmative thirty to negative nine.

On motion, the report, as amended, was then adopted.

On motion made by Dr. Cook, the Vice-President was instructed to cast for the Society an affirmative ballot for the election of all the officers named in the report as amended.

#### MODIFICATION OF THE STATUTE.

The Business Committee moved that the Secretary and Treasurer be directed to procure such modification of the statute from the legislature as may be necessary to legalize the new mode of selecting permanent members by representation. Carried.

#### REGISTRATION OF VITAL STATISTICS.

Dr. E. HARRIS, of New York, offered a resolution by the passage of which the Society encouraged a thorough registration of vital statistics throughout the State.

Reading of papers being next in order,

Dr. L. D. BUCKLEY, of New York, read a valuable paper

#### ON DIET AND HYGIENE IN DISEASES OF THE SKIN.

Reference was made to the various kinds of food employed in feeding children, and to the different methods of preparation.

#### A QUESTION OF MEDICAL ETHICS.

In the paper mention was made of food prepared by "The New York Food Company."

Dr. SQUIBB suggested that the name of the company should be omitted, inasmuch as the article of food prepared by them was patented. The simple omission of the name of the company was all that was necessary to relieve the Society of a technical

violation of ethics in accepting the paper as it was read.

DR. BUCKLEY thought the name could do no harm, and that it would aid the physician very much in obtaining a proper article of diet for children.

DR. MOSHER, of Albany, remarked, that if retaining the name would be of positive service in the treatment of disease, it should be considered as an incidental advantage, and be accepted.

DR. SQUIBB remarked that the same question was involved as came before the Society two years ago, when in a paper bromo-chloralum was recommended in the treatment of diphtheria. The suggestion which he had made was not aimed at the company at all, but, in his opinion simply the retention of the name in the paper read would be a violation of the medical ethics of the Society.

The Vice-President, DR. SAUNDERS, opposed the retention of the name of the company, if the paper was to be accepted by the Society.

DR. MOSHER remarked that if our ethics stood in the way of having the best things possible for the cure of disease, it would be wisdom for the Society to so change its Code that we could have the best.

DR. SQUIBB remarked that he thoroughly agreed that we should change the Code of Ethics, but that until such change was made we should not change our policy.

DR. HUTCHINSON, of Oneida Co., remarked that he endorsed the suggestions in the paper, and should be sorry to see it refused admission to the transactions, but at the same time he did not wish to have the Society endorse either proprietary medicine or food.

DR. CRAIG moved that the paper be referred to the Committee on Publications.

DR. MOSHER seconded the motion.

DR. SQUIBB remarked that such a motion, if it prevailed, would throw the entire responsibility upon that committee, and thought therefore, it would be better to decide the question in the Society.

DR. BUCKLEY signified his willingness to omit the name of the company from his paper, if it was the wish of the Society, and also the name "Nestlé," which had been used.

DR. J. S. BAILEY moved that, "As the sense of the Society, it would be wise to leave the names referred to out of the paper before it appeared in the transactions."

Almost unanimously carried.

The Business Committee *again* called for the paper by Dr. George T. Stevens, of Albany, but received no response.

#### REPORT ON SCHOOL HYGIENE FROM THE MEDICO-LEGAL SOCIETY OF NEW YORK CITY.

DR. SQUIBB, of the Business Committee, remarked that the only remaining paper to be read was a report on School Hygiene, from the Medico-Legal Society of the City of New York.

The report had been presented by Dr. C. S. Wood, of New York, and set down to be heard in connection with other papers and reports upon the same subject. At the time that subject was under consideration, the report was called, but the gentleman who was to read it was not present. It had been called since, but Dr. Wood was not present, and he would therefore now volunteer to read the report himself, inasmuch as Dr. Wood had returned to New York.

DR. E. HARRIS moved that the report be accepted, and that the thanks of the Society be extended to the Medico-Legal Society, through Dr. C. S. Wood. Carried.

DR. VAN DERVEER, of Albany, presented a paper

ON A SUCCESSFUL CASE OF THE REMOVAL OF A UTERINE FIBROID THROUGH THE POSTERIOR WALLS OF THE VAGINA; AND ELECTROLYSIS IN THE TREATMENT OF UTERINE FIBROIDS BY MEANS OF CUTTER'S NEEDLES.

It was read by title and referred to the Committee on Publication.

DR. CRAIG moved that the thanks of the Society be extended to DR. SAUNDERS for the courteous and dignified manner with which he had presided over its deliberations. Unanimously carried.

DR. STILES moved that the thanks of the New York State Medical Society be extended to the Albany County Medical Society for their handsome entertainment at the Delavan House on Wednesday evening. Unanimously carried.

The Secretary reported that 157 permanent members, delegates, and invited guests had been registered.

The minutes were then read and approved.

On motion made by DR. SQUIBB, Chairman of the Business Committee, the Society adjourned, to meet on the third Tuesday in June, 1878, which meeting is to be held in the city of Albany, by a *quorum*.

## Obituary.

EDMUND RANDOLPH PEASLEE, M.D., LL.D.,

NEW YORK.

DR. EDMUND RANDOLPH PEASLEE, the distinguished ovariotomist, died in this city, of pneumonia, Jan. 21st, and within one day of completing his sixty-fourth year. During the past few weeks he had been more than ordinarily driven in his professional labors, and, as a consequence, his general health began to suffer. Just preceding the attack of pneumonia of which he died, he was summoned to the central part of the State to perform an operation. Wishing to economize his time in order to meet other engagements, he rode by rail the whole of one night, performed the operation the following day, and returned the following night, having no rest for thirty-six hours. It would appear that this was beyond his strength, and pneumonia seized upon him at a time when, physically speaking, he was least prepared to meet it. He was ill for about a week, and was not considered in positive danger until within a few hours of his death, when he quietly and suddenly sank.

Dr. Peaslee was born at Newton, N. H., on Jan. 22, 1814. He was educated at Dartmouth College, and was graduated in the same class with Dr. Bartlett, the present President of that university, in the year 1836. He remained at Dartmouth as a tutor until the year 1839, when he entered the medical department of Yale College, from which he was graduated in 1840. During the following year he began the practice of his profession at Hanover, N. H., and also commenced the delivery of a series of lectures on anatomy and physiology at Dartmouth College. He became a professor of those two branches in 1842, and continued to hold that chair until the year 1870. In the year 1843 he was appointed lecturer on anatomy and surgery at Bowdoin College, and was professor of these branches of education during the period from 1845 to 1857, when he gave up anatomy, but continued to act as professor of surgery until 1860. Dr. Peaslee was appointed Professor of Physiology and General Path-



ology, in the year 1851, at the New York Medical College, and from 1858 to 1860 he accepted the Professorship of Obstetrics in the same institution. In the year 1856 the degree of Doctor of Laws was conferred upon him at Dartmouth—his Alma Mater. He was elected Professor of Gynecology at Dartmouth College in 1872, and at Bellevue Hospital Medical College in 1874. He was elected a Trustee of Dartmouth College in the year 1870. He took up his residence in this city in the year 1858, and since that time he has been engaged in the active and responsible duties of his specialty of diseases of women in general, but ovariectomy in particular.

Dr. Peaslee's communications to medical literature were numerous and varied. His tastes were, however, in the direction of surgery, and most of his communications in the different medical journals of the country were upon subjects connected with that department of the healing art. Finally, the circumstances of his practice developed a specialty for him of diseases of females, which, with his surgical tastes, naturally led to the higher walks of ovariectomy. For the latter operation he soon gained a well-deserved reputation, which, after the publication of his book upon the subject, became world-wide, and made him a recognized authority. It is unnecessary to say here what was the effect of the appearance of this work, stamping as it did the individuality of one of the most original workers in that particular line of study. His great success as a specialist was in no small degree due to the liberal and broad culture which prepared him for the place he was to occupy, and in his case particularly, it was the natural outgrowth of an earnest and faithful devotion to general practice. He published many valuable papers in this journal, which lately was his chosen vehicle for communication with the profession. Elaborate and valuable articles were also published from time to time in the *American Journal of Medical Sciences*, *American Medical Monthly*, *New York Medical Journal*, and the *North American Review*.

As a writer he was logical, terse, and convincing, having the rare faculty of bringing out the salient points of his subject in strong relief. As a speaker he was earnest and impressive rather than dogmatic and boisterous, and always carried his audience with him, the natural feebleness of his voice alone operating to his disadvantage.

With the exception of his treatise on Ovariectomy, which must be considered the crowning effort of his life, he published but one other work, that on Human Histology, in 1854. During his residence in this city he was honored with the following positions: President of the Pathological Society, President of the New York County Medical Society, President of the Academy of Medicine, President of the American Gynecological Society, Attending Surgeon of the New York State Woman's Hospital, Consulting Physician to the Strangers' Hospital, Corresponding Fellow of the Obstetrical Society of Berlin, Corresponding Fellow of the Gynecological Society of Boston, and honorary member of the Louisville Obstetrical Society.

As an operator he was bold, yet judicious. Always very careful in his diagnosis, when once his mind was settled regarding the feasibility of an operation, everything else bent to its accomplishment. In regard to the operation of ovariectomy, he was particularly careful of all details, insisting upon certain methods of preparation of the patient and of the operator, which were not observed by others. To these precautions he was inclined to attribute much of his remarkable success in some of the most formidable cases. Notably

among the matters of treatment peculiarly his own, was the washing out of the peritoneal cavity in cases of suppurative peritonitis, a method of practice which his earnest advocacy succeeded in establishing.

In general appearance Dr. Peaslee was never robust, but, on the contrary, gave the impression of feeble health, which impression was heightened by his pale cast of countenance, thoughtful and solemn expression, and feeble voice. Still his health was always good, and he was capable of bearing an amount of fatigue from which young and stronger men would shrink.

Dr. Peaslee lived to make an impression upon his day and his generation, the world was made better and wiser for his having lived in it, and he has left behind him a name which shall be cherished by his professional brethren as one of the brightest on record.

## Correspondence.

### DEATH FOLLOWING VACCINATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The admirably penned report in your issue of December 22d, of a "Death following Vaccination," must have been read by many physicians with closest attention.

This recital of a sad ending, after the most careful use of bovine virus, will revive in many minds the old doubt as to whether bovine lymph does not sometimes beget an undesirable and even a hazardous degree of local action. It will suggest the inquiry whether in case of the abandonment, as now seems probable, of humanized virus, because of its conceded dangers when carelessly selected and used, the universal substitution of bovine stock may not have its drawbacks and dangers—dangers, too, that no precautions can wholly avert, as in Dr Hawes' case.

I have before me a circular written in the interest of an animal vaccine establishment, in which it is stated that "vaccination with animal virus certainly does not entail a risk of any greater degree of inflammation than is commonly met with in the use of an active humanized stock. . . ."

Though the observation of one man counts for but little, I have been led to question the correctness of the above statement. I have, in several instances, known severe local action to follow the use of animal virus. In one there was great swelling, extensive sloughing, and weeks of suffering. Had this occurred in a feeble child instead of a strong woman, it might have ended fatally.

I would like to know whether others have observed any difference, and especially whether any one has known a fatal result to follow the careful use of humanized lymph in a healthy child.

WM. T. PLANT, M.D.

SYRACUSE, N. Y.

WHY MILK SOURS DURING THUNDER-STORMS.—Dr. Malvern Iles, of Baltimore, as the result of numerous experiments, has arrived at the conclusion that the acidity of milk after a thunder-storm is due to the development of lactic and acetic acids, which, in its turn is due to the surrounding oxygen being converted, by electricity, into ozone. The development of the acids, of course, causes the precipitation of the casein.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 12 to January 19, 1878.*

KINSMAN, J. H., Capt. and Asst. Surgeon. Ordered before the Army Medical Board, New York City, for examination for promotion, and, on completion, to return to his proper station. S. O. 9, A. G. O., Jan. 10, 1878.

CALDWELL, D. G., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to New York City, and, on arrival, report by letter to the Surgeon-General. S. O. 9, A. G. O., Jan. 10, 1878.

BENTLEY, E., Capt. and Asst. Surgeon. Ordered before the Army Medical Board, New York City, for examination for promotion, and, on completion, to return to his proper station. S. O. 9, C. S., A. G. O.

BARNETT, R., 1st Lieut. and Asst. Surgeon. Assigned to temporary duty at this Headquarters, in the office of the Medical Director. S. O. 8, Dept. of the Gulf, Jan. 14, 1878.

## Medical Items and News.

## CONTAGIOUS DISEASES—WEEKLY STATEMENT.

Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 19, 1878.

| Week Ending           | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-----------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Jan. 12, 1878 . . . . | 0             | 11             | 91             | 3                          | 83       | 80          | 0          |
| Jan. 19, 1878 . . . . | 0             | 10             | 82             | 3                          | 78       | 88          | 0          |

SPENCER WELLS.—Mr. Spencer Wells, the ovarioto-mist, has resigned his position as Surgeon to the Samaritan Hospital, London, and has been elected Consulting Surgeon. He is said to have performed ovariectomy in this hospital and private practice over nine hundred times. In four hundred and four hospital cases the deaths were ninety-nine.

MEDICAL MATTERS IN NEW YORK, BY AN OUTSIDER.—An amusing and piquant letter concerning medical matters in New York appears in the issue of *The Clinic* (Cincinnati, Ohio) of Jan. 12th. We commend its reading to such celebrities here as may be anxious to know how they impress casual visitors.

ALLEGED DEATHS FROM VACCINATION AT SHEFFIELD.—Inquests have recently been held at Sheffield on three children who have died soon after vaccination. From the medical evidence, it appears that death was caused in all three by erysipelas and bronchitis. The children were vaccinated by an unqualified assistant named Turner, in the employment of a Mr. O'Meara, who appears to be proprietor of a number of dispensaries in Sheffield, and in charge of one of these he had placed Turner. The jury returned a verdict against Turner in two of the cases, and he is committed for trial at the Assizes on a charge of manslaughter. The coroner passed some severe, though just, strictures on the loose way in which Mr. O'Meara conducted the practice of this dispensary, which he had practically entrusted to an unqualified assistant. As the evidence will be more fully and completely given

at the Assizes, we shall reserve further comment till then.—*British Med. Jour.*

PREVENTION OF CATARRH.—A writer in an English contemporary states that he has been successful in warding off attacks of catarrh by the daily use of a grain of quinine.

MIXED PRESCRIPTIONS AND AMATEUR PRESCRIBING.—Mark Twain, in a recent number of *Belgravia*, declares that a certain skipper in the North Pacific has lost his faith in medical combinations: "There is something rotten about this medicine-chest business. One of my men was sick—nothing much the matter. I looked into the book; it said, 'Give him a teaspoonful of No. 15.' I went to the medicine-chest, and I see I was out of No. 15. I judged I'd get up a combination somehow that would fill the bill; so I hove into the fellow half a teaspoonful of No. 8 and half a teaspoonful of No. 7, and I'll be hanged if it didn't kill him in fifteen minutes. There's something wrong about this medicine-chest system that's too many for me!"

THE DOGMA OF HUMAN RESPONSIBILITY, more especially as it relates to inebriety, was ably considered by the Rev. J. Willett in a paper read before the Annual Meeting of the American Association for the Cure of Inebriates. Although he considers drunkenness a disease, he claims it to be both a voidable and a curable one; voidable by a proper exercise of that self-control which every individual should possess, but curable only by the use of a certain amount of restraint, for which residence in a hospital is necessary. The influence of an inherited appetite, Mr. Willett thinks, can scarcely be overestimated, and, as a proof of the evil effects of the disease, he quotes Dr. Dugas, of the Georgia Medical College, who says: "I do not hesitate to proclaim it as a law of almost universal application that three successive generations of drunkards will leave no issue. The third generation may have children, but not one of these will be reared."

A CASE OF ARSENICAL POISONING TREATED WITH DIALYZED IRON.—The following case is reported by Dr. T. B. Reed: Miss S. accidentally left in the pocket of her gown a paper of arsenious acid, which had been procured to kill rats. Some days after, she filled the same pocket with gumdrops and bonbons, and sat down to her work. She noticed an unusual quantity of white powder on her candy, but carelessly brushed it off without further thought. Probably an hour and a half passed in this way, when she suddenly became deathly sick, and was, at the same time seized with an intense pain, feeling as if "she had had a pure mustard-plaster on the inside of her stomach." She now remembered the arsenic, and immediately endeavored to relieve her stomach with warm water. Failing in this, she hastened to the Doctor's office, who administered half a tablespoonful of dialyzed iron (Wyeth's) from a sample bottle on his table. This gave almost instantaneous relief, and the dose was repeated in ten minutes, then every half hour, and later, every hour during the day. There was no return of pain except some slight cramps in the lower bowel and limbs, and a dose of magnesia, mucilaginous drink, soft food, and an occasional dose of the iron completed the cure in a few days. In the pocket were found two gumdrops and one bonbon, all thickly covered with a white powder. This was carefully removed with a brush, and found to weigh  $3\frac{1}{2}$  grains. The gum and sugar was then removed, and the remainder weighed  $2\frac{1}{2}$  grains. This shows that a considerable amount of the poison must have been taken.—*Philadelphia Medical Times*, December 8, 1877.



## Original Lectures.

### DISEASES OF THE NERVOUS SYSTEM.

A LECTURE DELIVERED IN BELLEVUE HOSPITAL MEDICAL COLLEGE, DEC. 1, 1877.

By C. E. BROWN-SÉQUARD, M.D.

(Reported for THE MEDICAL RECORD.)

SYMPTOMS DUE TO PARALYSIS CAUSED BY DISEASE IN THE CEREBELLUM (*continued*)—DISORDER OF MOVEMENT—RELATION BETWEEN THE CEREBELLUM AND THE SEXUAL ORGANS—GENERAL PARALYSIS—DISEASE IN ONE SIDE OF THE CEREBELLUM AND IN THE SIDE OF THE BRAIN OPPOSITE—PARALYSIS CAUSED BY DISEASE IN THE CRURA CEREBRI—EFFECT PRODUCED UPON THE THIRD AND UPON THE SIXTH PAIRS OF NERVES—EFFECT PRODUCED UPON THE OPTIC NERVE—EFFECT PRODUCED UPON THE TUBERCLE QUADRIGEMINA BY DISEASE IN THE CRUS CEREBRI—DISORDER OF MOVEMENT—THE CORPUS STRIATA AND THE OPTIC THALAMI—NOTE OF THE THEORY THAT A PART OF THE CORPUS STRIATUM POSSESSES THE POWER OF THE WHOLE—DIFFICULTY IN DIAGNOSIS OF THE CAUSE OF PARALYSIS WHEN THE LESION IS SITUATED IN THE CORPUS STRIATUM—SYMPTOMS OF HEMORRHAGE INTO THE CORPUS STRIATUM—SYMPTOMS OF DISEASE IN THE OPTIC THALAMI—CHANGE IN REFLEX FACULTY—PARALYSIS OF BLOOD-VESSELS—AMAUROSIS PARALYSIS CAUSED BY LESIONS IN THE CENTRUM OVALE.

GENTLEMEN:—In my last lecture I gave you the symptoms usually present when there is paralysis caused by disease in the cerebellum. I shall to-day conclude what I have to say relating to that question. You may remember I said that when there is disease in the cerebellum there is very frequently disorder in movements of the body, and I characterized that disorder as one similar to what is observed in the movements of a drunken man. Lately, Professor Carpenter, who for a long time admitted the view that the cerebellum is the nervous centre for muscular sense, has, in consideration of experiments published by Ferrier, which seem to show that the cerebellum is a centre for the movement of the eyes, modified that view and come to conclude that if disease in the cerebellum produces disorder in the movements of the body, it must be on account of the instability of the muscles of the eye. You can easily understand that a man whose eyes are constantly oscillating, sees things before him constantly in motion. In consequence of this you can easily understand that such a man will have the same disorder in his movements as he sees in objects which surround him. The peculiar agitation, however, which exists in cases of disease of the cerebellum cannot be explained in that manner, for, if it were true, we should find the disorder of movement ceasing as soon as the eyes are closed. Although it is so, in certain cases, yet in most cases of disease of the brain there is no pretence whatever that disorder of movements in the limbs, have the limbs as the centre of the trouble. Galvanization of certain parts causes movements of the eye, but it is believed that by far more frequently what is observed there is due to reflex influence. Just the same thing has been produced by tickling the soles of the feet, causing movements of the muscles of the face, but we do not conclude that the centre which governs the movements of the muscles of the face is in the sole of the foot, and the same

method of reasoning leads us to deny that the part galvanized is the centre which presides over the movements of the muscles of the eye. After canvassing five or six hundred cases of disease of the cerebellum, I do not find mention made of any trouble in the eyes of the patient in a majority of them, and in most of the minority in which any mention was made with reference to the eyes, it was simply to say that there was no trouble there. It is only in a trifling number of the cases that there has been any eye trouble at all, and the trouble, when present, varies immensely. In some cases there has been strabismus in one or other of the eyes; in other cases, other troubles, so that we have seen the greatest variety of effects produced upon the eye in disease affecting the cerebellum. It is certain, however, that a peculiar disorder of movement is somewhat frequent in these cases.

There are two other peculiar features which have also been observed in disease of the cerebellum, as regards disorder of movements. These two features, frequently, are just the opposite, one from the other; just that, however, may come from disease in the same part of the brain. There are cases on record in which a deposit of tubercles in the same part of the cerebellum, the central portion on the left side and very nearly of the same dimensions, one of which was accompanied by a tendency on the part of the patient to run forward, and in the other a tendency to go backward. Indeed, as you find disease in the same place in the brain in an immense number of cases without such movements, you cannot admit that there is any peculiar power then to produce direct movement forward or backward, or sideways, for disease in the cerebellum may produce a rotary movement, as well as movements backward and forward. All these varieties of movement you can also find in connection with disease located in other parts of the brain; so you are not to look upon them as anything essential, although, perhaps, they occur more frequently with disease in the cerebellum than with disease elsewhere in the brain. Rotary movements form an exception to this rule, for they occur more frequently from affections of the pons varolii, just at the place where the crus comes into it, or in connection with disease in the crus itself, than in disease in the cerebellum. But other parts have that power; as disease of the supranuclear capsule has been known to produce rotary movement, and so has disease of the auditory nerve without organic disease in the brain, produced the same phenomenon. We have the remarkable case of the Duke of Wellington, who received at the hands of a quack an injection of a strong solution of nitrate of silver into one of his ears; the Duke rotated with great rapidity, and the man not being satisfied, repeated the injection the following day, and produced the same rotary movement of the body. Such a movement can be developed, therefore, not only by disease in the cerebellum, but by disease in many other parts of the nervous system.

#### RELATION BETWEEN THE CEREBELLUM AND THE SEXUAL ORGANS.

To continue what I have to say, I have to mention a fact which has been the subject of great discussion, and that is, the influence which, as has been supposed, the cerebellum exerts upon the sexual organs. It has been said that the cerebellum is the nervous centre which presides over sexual desire. Certainly there are cases in which, that organ being diseased, there has been loss of sexual power. At the same time, just the reverse may be true, and with inflammation affecting those parts, there may be an increase of sexual

power and desire. Inflammation affecting the cerebellum may cause either loss or increase of sexual power. Still more, examination of an immense number of cases brings us to the conclusion that there is no definite relation between sexual power and the cerebellum. For, an immense number of cases are found in which there was no change whatever in sexual power and desire, although the cerebellum was extensively diseased. There is upon record a most remarkable case, which goes to establish what I have been saying. It was a case in which there occurred the most important destruction of the cerebellum known; there was no trace of the cerebellum found at autopsy, and the pons varolii was very much diminished in size, due to absence of the fibres, which go into the cerebellum. In that case, if the cerebellum is the nervous centre that presides over the sexual organs, there would have been present phenomena which are quite different from what was developed, for the patient, a girl, was addicted to masturbation, to a most wonderful degree. We cannot say that her excessive sexual desire was due to irritation in the cerebellum, for that portion of the brain was entirely absent. In that case there was, on the one hand, an entire absence of the cerebellum, and on the other, there was constant sexual excitement. If the cerebellum is the nervous centre for the sexual organs, these two facts cannot be reconciled.

#### GENERAL PARALYSIS IN CASES OF DISEASE OF THE CEREBELLUM.

I pass now to other points relating to the cerebellum in connection with paralysis, and to one in particular, which is a most important point, as it relates to paralysis itself.

I have said that if the cerebellum has any function, at least which I know of, it is a producer of nerve-force. The only thing, I repeat, which, to my knowledge, is constant in cases in which there is considerable alteration in the cerebellum, is diminution of strength in all parts of the body without reference to the localization of the disease; it may be in one lobe or the other, upon the surface, or in the central part of the cerebellum. There is something like a general paralysis in cases of considerable disease in the cerebellum; but besides this the variety of localized paralysis which may be developed is extremely great.

#### PRESSURE UPON THE PONS VAROLII.

There is no doubt that, in most cases in which localized paralysis appears when there is disease in the cerebellum, it is due to pressure produced upon the pons varolii. In those cases the paralysis, almost invariably, is upon the opposite side of the body. You will find this particularly in cases in which the disease in the cerebellum is able to exert considerable pressure; it is especially marked where there is great hemorrhage into one lobe of the cerebellum, necessarily giving rise to pressure upon the pons varolii beneath it.

The same thing may occur in cases of considerable tumor in the cerebellum, producing pressure upon the pons varolii, and in these cases the paralysis is due to an effect produced upon the pons varolii in reality, and to an effect produced upon the cerebellum in appearance. But disease of the cerebellum certainly can produce paralysis. There are cases in which limited disease in the back part of the cerebellum has been accompanied by paralysis, either upon the same side or upon the opposite side of the body. There are cases in which slight softening in the cerebellum has been attended by localized paralysis, and certainly we cannot admit that in such cases the paralysis was due to

pressure upon the pons varolii. All forms of localized paralysis may arise from disease in the cerebellum that can scarcely be supposed to exert pressure upon the pons varolii. There may be paralysis affecting the face, the tongue, or any part of the body. Still, as a rule, you will find hemiplegia, caused by disease in the cerebellum, existing without paralysis of the tongue or of the face. Now, if you have a patient stricken down with apoplexy, showing symptoms of hemorrhage into the brain, consisting of hemiplegia, loss of consciousness, difficulty of breathing, coma, etc., which generally accompany hemorrhage in the encephalon—if you have these symptoms, and you find there is no appearance of facial paralysis, no appearance of paralysis of the tongue; and if you find, after the patient has recovered from the first effects of the blow, that there is vomiting, amnesia, or diminution of sight, and considerable headache, you can, with a great probability of being correct, say that there has been hemorrhage into the cerebellum. If the patient also has some disorder of movement accompanying his hemiplegia, you have another reason for believing that the disease is in the cerebellum.

#### DISEASE IN ONE SIDE OF THE BRAIN AND IN THE CEREBELLUM ON THE OPPOSITE SIDE.

There are other features which are extremely striking with regard to paralysis in connection with disease in the cerebellum. It has been pointed out by Andral that when there is disease on one side of the cerebrum, and also on the opposite side of the cerebellum, you are to look for paralysis upon the side corresponding with the disease in the cerebellum. This is true in nearly all the cases, whether there is softening or hemorrhage, or some other disease. There are exceptions, however, and I know of two such cases. In one of these there was a deposit of tubercles scattered in the anterior and middle lobes of the brain upon the right side, and also tubercles on the left side of the cerebellum; in this case there was paralysis upon the right side of the body, upon the side corresponding to the seat of disease in the cerebrum, contrary to the rule laid down by Andral.

When atrophy is found occupying a considerable extent of the large brain, you will almost always find some atrophy also in the cerebellum, but upon the side opposite to the seat of the change in the cerebrum. In the future you may perhaps be obliged to pay more attention to this fact than has been done in the past. Indeed, much which will be of interest will have to be found in the relation which exists between one-half of the cerebellum and the opposite side of the brain.

#### PARALYSIS PRODUCED BY DISEASE IN THE CEREBRUM.

I now pass to the consideration of paralysis as it occurs in connection with disease affecting another part of the nervous system. This part, at the base of the brain, for what I have chiefly to say in this course of lectures, is full of interest. It is quite certain that the crus cerebri upon one side is, according to the generally accepted theory, the only part which establishes a connection between the same side of the brain and the opposite side of the body. As there is no other channel of communication between the spinal cord and brain except through this narrow portion, what pathology there is with reference to this part is by far more important for the advanced views in science than that relating to any other part at the base of the brain. There is no possibility of escape as regards that part. It is a necessity according to the theory so generally and universally admitted that all the fibres which



serve for voluntary movement pass there; all those going from the right side of the brain to the left side of the body are in the right, and those from the left side of the brain to the right side of the body are in the left crus. What are the facts about this? In the first place I will say that, if the theory were correct, when there is disease located upon a small portion of that part of the brain, striking only a limited number of fibres, for instance, the outside fibres, you would always see paralysis limited to certain muscles of the body; to muscles of the arm, of the face, of the legs, one or both, or to the muscles of the arms or legs. But such is not the fact. There are many cases of disease located in one crus cerebrum in which a limited number of fibres were destroyed at the front part, at the back part, upon one side, or within the crus, and in all these instances, if paralysis has been present, it has affected nearly all the muscles, and generally upon the opposite side of the body. There is, therefore, for disease which has destroyed only a small number of fibres, by far more paralysis as regards extent than there should be. This objection is of very great importance. You may find, for there are such cases, that an arm is paralyzed by disease in the crus cerebrum, and the general belief is that the disease is so located as to destroy anterior or middle fibres in such cases. The arm, however, may be paralyzed, whatever the disease may be in the crus, and we generally find that the arm alone is paralyzed when the entire crus cerebrum is destroyed upon one side. So there is no connection between the seat of the paralysis or its extent and the situation of the disease in the crus cerebrum, such as there should be if the universally admitted theories were correct.

Still more: there are cases of considerable disease, indeed, according to the statements of some writers, of complete destruction of the crus by abscess; for instance, as in the case of my friend, Prof. Jackson, of Boston, with complete absence of marked paralysis.

Still more: there are cases, recorded by good observers—indeed, four to my own knowledge—in which there was disease in the crus cerebrum upon one side, with paralysis upon the corresponding side of the body. So, with reference to these, as with reference to other parts of the brain, you may find that disease will be present either without producing paralysis, or that it will produce paralysis, both in degree and extent, which it should not; that it will produce paralysis upon either side of the body, when, according to the theory, it should *always* be upon the side of the body opposite to the seat of the disease in the crus.

But more than this: there are many cases upon record—five have occurred to my own knowledge—in which the crus cerebrum on both sides was in a great measure destroyed without producing any marked paralysis. From these last facts you must be led to admit what I have stated a number of times during this course of lectures is true, namely, that a few fibres are amply sufficient to establish communication between the centres of will-power and the muscles.

#### EFFECT UPON THE THIRD AND UPON THE SIXTH PAIRS OF NERVES.

The symptoms which accompany paralysis, caused by disease in the crura cerebri, are very interesting indeed, and very frequently can show where the disease is. As you well know, a large number of muscles in the eye are moved by the third pair of nerves. Disease in the crus cerebrum affects that nerve almost necessarily, unless the disease is in the back part of the crus, and there will be a certain amount of dilatation of the pupil, showing that there is paralysis of the

constrictor fibres of that part of the organ. There will be strabismus, due to the persistent action of the sixth pair of nerves, drawing the eye outwards, and in consequence diplopia. There is besides, paralysis of the muscle which elevates the eyelid, producing ptosis. So, there is ptosis, strabismus, diplopia, and dilatation of the pupil existing in most of these cases. If the disease is in the back part of the crus, the third pair of nerves may escape injury.

It has been considered that the back part of the crura cerebri is the part through which the conductors for sensitive impressions make their way to the brain. That view is radically false, for there are many cases in which there has been destruction of that part without any trace of anesthesia. There is one case of this kind upon record, in which there was hyperæsthesia instead of anesthesia.

#### EFFECT PRODUCED UPON THE OPTIC NERVE.

But there are other features which may lead to diagnosis when disease exists in the crura cerebri, producing paralysis. As you know, fibres pass in this neighborhood which belong to the optic nerve, so that there is very frequently amaurosis, due to disease in the back part of the crus especially, and there may be present what has been described under the name of hemiopia, or loss of sight in one-half of each eye. So, you see, we have the symptoms for making a diagnosis in a number of these cases in which there is disease of the crus upon one side producing paralysis upon the opposite side of the body. Even when there is paralysis upon the same side, diagnosis may be made, although then it would be very difficult in most instances.

#### EFFECT PRODUCED UPON THE TUBERCULAR QUADRIGEMINA BY DISEASE IN THE CRURA CEREBRI.

When disease exists in the back part of the crura cerebri, there may be injury of the tubercular quadrigemina. These parts have been considered the centre for vision. Certainly they have a great influence upon vision, but disease can exist there without marked amaurosis, or hemiopia, directly. If there is amaurosis, it may exist either upon the corresponding side, or upon the opposite side, or it may exist in both eyes. As a rule, the amaurosis will be upon the opposite side; the hemiopia either in both eyes, or in one eye, but chiefly in the eye upon the opposite side. Unfortunately for the sake of diagnosis, the variety in these symptoms, which may be present in cases of disease of the brain, is extremely great. Still, by a complete analysis of the phenomena observed, diagnosis can be made.

#### DISORDER OF MOVEMENT.

When the tubercular quadrigemina are involved there will frequently be present a disorder of the movement something like that seen with disease in the cerebellum, although by far less marked. The kind is detected chiefly by asking the patient to close the eyes, when, if due to strabismus or diplopia, you will find that he can stand firmly upon one foot. This is also present with disease in other parts of the brain, but is more marked when the disease is in the tubercular quadrigemina than elsewhere. It is more marked when the disease is at the base of the brain than when in other parts, but most marked when the disease is at the level of the tubercular quadrigemina. It is this which has led physiologists to conclude that the tubercular quadrigemina is the centre for muscular sense. The centre is not there evidently, as we find disease in those parts without producing any lack of

power in balancing the body or in giving direction to its movements.

#### THE CORPORA STRIATA AND THE OPTIC THALAMI.

We will now pass to the study of other parts of the brain. As you well know, there are two large ganglia, which, part of one, and the whole of the other, protrude into the lateral ventricle of the brain. One, the corpus striatum, is divided into two distinct parts called the intra- and extra-ventricular. Prior to the time of the experiments of Fritsch and Hitzig, the intra-ventricular portion of the corpus striatum was considered as the voluntary motor centre. Again, I have to dissent. For, disease in the intra-ventricular corpus striatum, which was believed to be employed in moving muscles, if it produced irritation, would produce convulsions frequently. But there is no part of the brain which has so little power in producing convulsions as the corpus striatum, especially its intra-ventricular portion. This is a decisive fact against admitting that that part is a voluntary motor centre or that it is a centre in connection with others which are admitted to exist in the convolutions of the brain. According to the new views the corpus striatum has not been altogether disposed of. With reference to its function, however, the absence of convulsions when it is irritated by disease is a decisive fact. The facts also with reference to paralysis in connection with disease in the corpus striatum are quite decisive. For there is almost complete, and, in some cases, entire destruction of the corpus striatum without producing a marked paralysis. There is certainly no relation between the extent, degree, and duration of the paralysis and the lesion in the corpus striatum. There are cases in which disease in the corpus striatum has been exceedingly limited in the front part of that organ with complete and persistent paralysis upon the opposite side up to the time of death. The facts, therefore, are quite in opposition instead of being in harmony with the admitted theory regarding the function of this part of the brain. My friend and former assistant, Dr. J. Hughlings-Jackson, holds the view that a small portion of the corpus striatum can perform the function of the entire organ. He knew perfectly well, for he had seen such a case, that if the greater part could be destroyed without producing paralysis, the smaller part could possess the power of the whole, and therefore brought forward the hypothesis. This is a possible thing; but when we find that the entire organ is diseased, without producing paralysis, there is an end to the theory. Still more, we may find disease in both intra-ventricular corpora striata at the same time, without being accompanied by any marked paralysis. This has occurred in more than one case. Although, one case well established would be sufficient, and there are many such cases in which disease more or less complete, has occurred in those two parts at the same time, without producing marked paralysis. The fact that the corpus striatum has no special signs by means of which we can say that paralysis arises from disease in that part of the brain would seem to make the question of diagnosis extremely difficult.

But the diagnosis can be made in this manner.

#### SYMPTOMS PRODUCED BY HEMORRHAGE INTO THE CORPUS STRIATUM

In the first place, we will study the effect produced by hemorrhage in that part of the brain, for hemorrhage into the corpus striatum is by far more frequent than hemorrhage in other parts of the brain. There is no part, except, perhaps, the optic thalamus, in

which hemorrhage occurs more frequently than into the corpus striatum. There is another exception, yet it can scarcely be called such, and that is hemorrhage between the corpus striatum and the optic thalamus; there are several such cases. The occurrence of military aneurism, described by Charcot, is extremely common in the blood-vessels in these two ganglia, and also in the blood-vessels between them, and it is this fact probably which accounts for the frequent occurrence of hemorrhage in those parts. If you have to deal, therefore, with a case of paralysis upon one side of the body with symptoms intimating the occurrence of hemorrhage in the brain, there is a great probability that it has taken place in the corpus striatum, or in its immediate neighborhood. But there are other ways of making a diagnosis: The symptoms previously mentioned and dependent upon paralysis of the third pair of nerves; the existence of amaurosis and disordered movement, the patient showing either a tendency to turn around or to go forward or backward. All these symptoms are by far less frequent, however, when the disease exists in the corpus striatum; vomiting may be present, but occurs less frequently, and also hyperaesthesia, which occurs very frequently with disease in the base of the brain, will be absent in almost every instance of disease in the corpus striatum. So that by passing in review all the symptoms which you know to be very frequent, when disease is in the base of the brain, and knowing that disease in the corpus striatum does not usually produce them, you will be able to arrive at a reasonable conclusion that the disease is in that part. If you add that the patient has had no convulsion, you will have another reason for locating the lesion in the corpus striatum, and this leads me at once to speak of the symptoms accompanying disease in the optic thalamus, for they differ immensely from those which accompany disease in the corpus striatum.

#### SYMPTOMS OF DISEASE IN THE OPTIC THALAMI.

Disease in the optic thalamus very frequently indeed produces convulsions. The optic thalamus is perfectly able to produce paralysis, and this is an important point against the views so universally admitted by physiologists and physicians. For, the optic thalamus has not been considered by any one as being the seat of the will power for any voluntary movements; and yet hemiplegia, or other kind of paralysis, appears just as frequently from disease in the optic thalamus as from disease in the corpus striatum. We have here again a very clear reason against admitting that paralysis is developed in cases of brain disease because of destruction of nerve-centres in any part of the organ.

The paralysis caused by disease in the optic thalamus has features which are most interesting. There is almost always, in cases of disease in the optic thalamus, change in the reflex faculty. In the paralyzed limbs, or if but slightly paralyzed, reflex irritation disappears or is very much diminished, or just the reverse may be present: that is, considerable increase of reflex movements.

Another important feature is frequent paralysis of blood-vessels upon the opposite side of the body, when there is disease in the optic thalamus. Not that I consider the optic thalamus as the centre for the vaso-motor system, but the fact exists, and is important for diagnosis.

This is the reverse of what you very frequently find in cases of disease of the pons varolii. In disease of the pons varolii very frequently the limbs upon the opposite side of the body are extremely cold, and it



requires considerable destruction of the pons for the reverse to be observed. In disease of the pons varolii, instead of having paralysis of the vaso-motor system, there is excitation and consequent contraction of the blood-vessels and diminution of temperature on the side of the body affected.

The optic thalamus is certainly a most interesting organ to study, and I wish I could dwell at length upon its significance in disease.

But there are other features which are extremely remarkable. The optic thalamus, although it is not the centre for vision, is very frequently, when diseased, the cause of amaurosis. Still more, it is very frequently the cause of loss of all the senses upon one side, and almost always, but not always, as there are exceptional cases, the loss of senses is upon the opposite side. The optic thalamus acts much in the same manner as the trigeminus nerve. You know it was shown long ago by Magendie that, when the trigeminus nerve is divided, there is loss of the special senses upon the corresponding side. The action of the thalamus differs from that of the trigeminus, but it resembles it inasmuch as there has been observed alteration of nutrition and change in structure of the eye similar to that caused when there is disease of the trigeminus. This change in structure of the eye has been observed in two cases in which there was disease in the optic thalamus to my knowledge, and probably there are more upon record.

The optic thalamus, or at least a part in that neighborhood, has been considered by many physiologists as the centre for perception or sensation. This is absolutely wrong, and some of the more recent observers have given up that view. I will say, as regards the pretended passage of these fibres conveying sensitive impressions, that those fibres which go from this part to the posterior lobes of the brain, are, almost every day, found destroyed without producing anaesthesia at all. So if these are facts which seem to show that there are fibres, passing through the internal capsule, which serve to convey sensitive impressions, the destruction of those fibres does not produce phenomena which are in harmony with the requirements of the theory.

#### PARALYSIS PRODUCED BY LESIONS IN THE CENTRUM OVALE.

I now pass to other parts of the brain, and let us first study the effects produced by lesions in the radiating white fibres which go to make up the centrum ovale, or the white matter of the cerebral lobes. Those parts can produce paralysis, and the paralysis produced by lesion there can be just as great as paralysis produced by lesion in any other part of the brain. A lesion occupying the most distant parts of the brain, either in the posterior, the middle, or the anterior lobes, can produce paralysis. There is in that fact evidence quite clear and quite abundant against the view which I am fighting. We find that disease in any part of the centrum ovale can produce complete paralysis upon the opposite side of the body. If that alteration is limited in the posterior, the middle, or the anterior lobe, how can it be that all the voluntary motor fibres are destroyed in such a limited part of the brain? This certainly cannot be admitted. When the disease is located only in a small part of the white matter of the brain, we cannot reconcile the fact which follows with the requirements of the theory. There should be only a simple localized paralysis—a slight degree of paralysis; but, on the contrary, we find that complete hemiplegia occurs, which is persistent from disease in those parts. The reverse also is found, and an entire, or almost entire, hemisphere has been de-

stroyed without producing any marked paralysis. In collecting facts we have found a series which show that either paralysis or convulsions may exist either upon the corresponding side or upon the opposite side. The paralysis exists almost always upon the opposite side; in some cases, perhaps one out of three hundred, it will be found upon the same side. Not so, however, with convulsions, for when the white substance of the brain is diseased you will find them upon the corresponding almost as frequently as upon the opposite side. It is due to irritation only that such convulsions are present.

## THE TREATMENT OF FRACTURE OF THE SHAFT OF THE HUMERUS.

CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL,

BY FRANK HASTINGS HAMILTON, M.D.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—I will occupy a portion of the hour to-day in discussing the subject of fracture of the shaft of the humerus. Please remember that I confine my remarks to fracture of the shaft of the bone, the same as when speaking of fracture of the shaft of the femur, and make no allusion whatever to fracture near to or involving either the upper or the lower extremities of the bone. It is in the humerus, more frequently than elsewhere, that we find ununited fracture. Next in point of frequency, ununited fracture occurs in the femur. The position of this bone is quite analogous to that of the femur; that is, it is the upper bone of the upper extremity, and it stands alone, having no other bone attached to it, as does also the femur in the lower extremity. The positions of these two bones, then, are in many respects alike, but there are important points of difference.

#### TO OVERCOME THE SHORTENING.

In case of fracture of the shaft of the femur, the greatest difficulty in the way of treatment is to overcome the tendency to shortening.

There are two reasons why, in case of fracture of the shaft of the femur, this tendency should be the first object of attention, while, in case of fracture of the shaft of the humerus, it may be considered as secondary. First, the femur is one of the main bones of the extremity upon which we walk, and any considerable shortening will cause a halt in the gait. In case of fracture of the humerus, the shortening that occurs with ordinary treatment is of no importance, because unless revealed by careful measurement, the patient will know nothing about it.

In the second place, in case of fracture of the femur we have a muscular force to deal with which is immensely more powerful than that which is brought into action in case of fracture of the humerus, hence the tendency to shortening is so much the greater in the former case. Indeed, I may say at once, that this indication in the treatment of fracture of the humerus, namely to prevent shortening, is unimportant. The patient will not recognize it, if it occurs, and I am not quite sure but that the bone unites a little more completely and certainly because of the fact that the fragments do overlap. Nevertheless, surgeons have endeavored for a long time to devise some dressing which should overcome such tendency.

(Several splints were exhibited, but their inefficiency was demonstrated by pointing out the fact that they could not have sufficient purchase upon or attachment to the arm to make adequate extension and counter-extension.)

My friend and colleague, Dr. Stephen Smith, has lately treated a case in this hospital by continued extension, which I was permitted to see in the course of the treatment. I brought the patient before you at the last clinic, and we found the arm united, straight, and lengthened about half an inch. I think the lengthening was due to the relaxation and stretching of the ligaments about the shoulder-joint. The case was exceptional and the treatment was exceptional. It was a compound fracture of the shaft of the humerus, and no lateral supports could be applied. So the doctor laid him on his back in bed, his arm resting on a pillow, and with adhesive strips, a cord and pulley, supported by an upright fixed to the side of the bed, extension was made, the counter-extension being the weight of the body. You see, however, that this rendered it necessary that the patient should remain on his back, in bed, for several weeks, a method of treating a fracture of the humerus which no one would submit to for the purpose of preventing a little shortening.

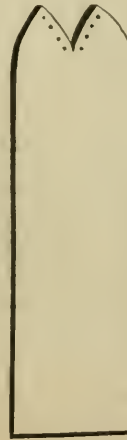
Dr. Clark, of St. Louis, has devised another method of keeping up extension, and it is to suspend a weight from the lower portion of the humerus, while the patient maintains the sitting or standing position. Only a very moderate weight is required to keep up the amount of extension requisite to overcome the tendency to shortening. But you can easily understand that this apparel does not permit the patient to lie down, while the apparel employed by Dr. Smith does not permit him to get up. Practically, therefore, these methods of making extension here have very limited application, but inasmuch as extension and counter-extension are not necessary, the shortening which follows this fracture having no practical importance, it is not necessary to resort to any device for the purpose of overcoming that tendency.

#### TO MAINTAIN THE FRAGMENTS AT REST AND IN LINE.

I have next to call your attention to what, in the case of this bone, I consider the most important indication of treatment, namely, to keep the fragments quiet and in line. I speak of the means for keeping the fragments *quiet*; first, because this is the bone which more frequently remains ununited than any other in the body. A certain kind and amount of motion is not incompatible with prompt union, but a *to and fro* movement between the fragments *seldom or never fails to prevent union*. The difficulty in this form of fracture is that there is a tendency to the production of this kind of motion; and this tendency is not restrained by the ordinary, and what has been regarded as the best, method of treatment. When the forearm is placed at a right angle with the arm and some form—an angular splint, for example—of retentive apparatus employed to secure immobility at the elbow-joint, the elbow-joint will soon become more or less ankylosed; but in spite of the splint, the patient will give more or less of motion to the hand and forearm every time he lies down and gets up, for he is constantly supporting the hand sometimes higher, sometimes lower, and all these slight movements do not terminate at the elbow-joint, but are transmitted through it to the upper end of the lower fragment, causing at this point a *to and fro* movement. It places the arm and forearm in an awkward position to dress them on a long, straight splint, and then permitting the whole arm to hang beside the body, and I do not advise it, because I think you can secure the requisite immobility of the fragments in a much easier manner. I have never seen a case in which the fracture has failed to unite when dressed in the manner which I

am about to describe. A splint is constructed which reaches from above the top of the shoulder down to but not overlapping, the condyles of the humerus. This splint may be made of leather, gutta-percha, felt etc. It is made cup-shaped at the top so as to cover the point of the shoulder, simply for the purpose of preventing it from sliding down. The splint should be moderately padded with cotton, and then covered with cloth. The main object of the covering is to furnish something to which the bandages can be fastened by the aid of a needle and thread. No other splint is necessary absolutely, but I use a short splint, well padded and covered, and placed upon the inner surface of the arm simply to keep the bandages from cutting into the axilla and delicate skin on the under side of the arm. The top of the long splint rests against and over the head of the humerus; it is bound about the limb by successive turns of a roller-bandage, and is the essential splint; the short splint is applied simply for the purpose mentioned, and the dressing is complete.

FIG. 1.



Pattern of Long Splint,  
from Hamilton's Treatise on Surgery.

FIG. 2.



Same complete.

But you may ask why do you omit to bandage the forearm? First, because it is useless. Second, it is almost impossible to apply a bandage so equally as not to obstruct the circulation at some point, and especially about the elbow-joint. With the bandage on, if the arm is a little straighter, it is loose, if it is little more flexed, it is tight. Third, it is exceedingly liable to get disarranged, and prove a source of annoyance rather than of comfort to the patient. Having omitted it, I have found that the limb does not swell if the bandages about the arm are not applied too tight. If the hand and forearm are inclined to become swollen, the patient can lie down for a few hours. Practically, I have no difficulty whatever in omitting the bandage for the hand and forearm. I omit the angular splint. Because the splint increases the stiffness of the joint, and I desire that the patient should move the joint, not violently, but that he may feel a liberty to move the joint and lift the hand as he chooses. But can we keep the fragments in place if we omit the angular splint? I can simply give you the result of my experience. During the past fifteen years I have not used any dressing for the forearm while treating a fracture of the humerus, and, as already stated, I have not in a single instance failed to secure prompt union. The main reason why I leave



the elbow-joint free is to prevent non-union. The moment the elbow-joint becomes stiff, no matter how produced, movement will occur at the seat of fracture; the upper end of the lower fragment receives the motion transmitted to it from the forearm and hand through the stiffened elbow-joint. I have seen many cases in which non-union of this bone has taken place where the angular elbow-splints were employed, but none in which the method I have now described was employed. I have also reported three cases in which union being greatly delayed, it has been speedily brought about by putting the whole arm and forearm in a straight splint, and permitting it to hang beside the body, in the manner described in my Treatise on Fractures and Dislocations. Do not omit to cover both splints with cloth, for this simple apparel will be sure to be displaced unless the bandages and the splints are firmly stitched to each other. The bandage need not be carried higher than the margin of the axilla, because above that point it is impossible for it to get any hold upon the upper fragment; the splint, however, gets hold of the fragment, unless the fracture is at the surgical neck or higher. It is thought by some to be necessary to carry the bandage over the shoulder and through the axilla upon the opposite side; this looks very well, but it possesses no value whatever.

I have omitted to say that, having secured the splints in place, bring the arm against the side of the body, and secure it to the body with two or three turns of a roller-bandage, carried horizontally around the arm and body. This should also be stitched to the splint. Let there be no pressure of the bandage in the axilla or at the bend of the elbow. The hand is then placed in a sling, but the patient is at liberty to take it out, and move the elbow whenever he chooses. From day to day the splints must be examined, and if the arm shrinks, and they become loose, it is not necessary to open the dressings and renew them, but they can be tightened by overstretching, taking in a fold of the bandage. This must be attended to faithfully. And again I repeat, if it swells below the elbow, as it may do in exceptional cases, let the patient lie down.

(Two patients were then shown with fracture of the shafts of the humerus dressed in the manner above described.)

Dr. Hamilton concluded by saying that fractures through and above the surgical neck, and in the neighborhood of the elbow-joint, would be considered at another time. The latter of these generally demanded the use of an angular splint.

A case was then shown of dislocation of the shoulder-joint, but in which a suspicion was entertained that it was complicated with a fracture. Treatment was reserved. The clinic was then closed with an operation for hare-lip.

LEIPSIK.—Dr. Ernst Wagner has been chosen to succeed Wunderlich in the University of Leipzig. He has been relieved from his previous duties and made Professor of Special Pathology and Therapeutics, and Director of the Medical Clinic.

CONVICTION OF A QUACK IN THE BENANGE.—Charlatanism in the Gironde has received a cruel blow in the person of one of its most powerful high-priests. In spite of a life of devotion to empiricism, in spite of numerous attestations and certificates, the *Sieur Bis-sière*, the "good genius" of the Benange, was condemned to six months' imprisonment and a fine of 1,000 francs. The conviction was largely due to the efforts of the *Comité de Défense Professionnelle*.

## Reports of Hospitals.

### NEW YORK HOSPITAL.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

The following cases were recently noted in the service of Dr. H. B. SANDS, Attending Surgeon:

##### COLLES' FRACTURE OF THE RADIUS.

The patient, a man of 24, slipped on a banana-skin and fell, striking on the palm of the hand. The deformity was easily reduced, and an antero-posterior splint was applied. Later, the Morris treatment was adopted. Two bandages, three inches in width and rather loosely rolled, were placed on either surface of the forearm, over the seat of fracture, and maintained in place by a broad strip of adhesive plaster, making sufficient compression to keep the fragments in position. The result was satisfactory.

##### FRACTURE OF PATELLA.

The injury was the result of muscular contraction, in the effort of the patient (aged 42) to save himself from falling on being roughly assaulted in the street. The fracture was transverse, and was accompanied by a good deal of swelling. At first, a posterior splint was applied, and a lotion of muriate of ammonia with equal parts of water and alcohol ordered, and it was found that the separation of the fragments was not so great as at first, being now less than  $\frac{1}{4}$  inch. Tilford's strap-and-buckle apparatus was then applied, and the limb placed on a high inclined plane. After that the strap was tightened little by little until the separation was hardly perceptible, and at the end of a month a posterior plaster splint was applied. In three weeks more the patient was allowed to get up, and shortly after that the splint was removed. In two months from the time of admission the strap-and-buckle apparatus was also removed and an elastic knee-cap applied, and two days afterwards he was discharged cured. A second case was also treated with equal success in the same manner.

##### MULTIPLE FRACTURE OF TIBIA.

The patient was a sailor, and the injury was caused by his being thrown violently down among some chains by a heavy wave which swept over the deck. He also sustained a dislocation of the humerus. The leg was found to have been fractured in two places, the middle third being separated. The deformity was very noticeable, and all attempts at reduction proved futile. It was treated by means of the fracture-box, and there was an inch and a half shortening. The common treatment for fractures of the tibia and fibula was noted to be the fracture-box, afterwards followed by the plaster-of-paris bandage, and excellent results were commonly obtained.

##### FRACTURES OF THE FEMUR

were treated either with the plaster-of-paris splint or with Buck's extension apparatus, with Volkmann's sliding contrivance for keeping the foot straight, and ordinarily a long external splint. One case, in which a plaster-of-paris bandage was employed, left the hospital doing well while still wearing the splint.

FRACTURE OF HUMERUS—FRACTURE OF RIBS—RUPTURE OF SPLEEN.

The patient, a female of 33, fell from the paint platform of the Olympic Theatre to the stage below, a distance of over thirty feet. On admission she was in great agony, suffering from pain in the arm and all the way down the left side, with difficult respiration. Examination revealed fracture of the left humerus in its upper third, but, owing to the patient's condition, the examination was not very thorough. The arm was simply put up in a coaptation splint and kept quiet. The pain in the side and interrupted breathing were easily accounted for by a fracture of the lower five or six ribs, some of them being apparently broken in several places. Broad straps of adhesive plaster were tightly drawn around the chest, and great relief was thus afforded. Owing to the suffering of the patient, the examination of the pelvis was necessarily incomplete, but the point of greatest pain seemed to be over the tuberosity of the left ischium. Motion at the hip-joint was unimpaired, though somewhat painful. During the night 75 minims of Magendie's solution were administered hypodermically without affording much relief, and brandy was given both by the mouth and rectum. She vomited at frequent intervals, and her condition was at times very critical. On the day following she was considerably more comfortable and in better condition generally, but one day later symptoms of peritonitis showed themselves, and four days from the time of admission she died. The autopsy revealed a comminuted fracture of the upper third of the left humerus and fractures of five ribs on the left side, one or two of them in two places. There was hypostatic congestion of the lower lobes of both lungs and a rupture of the spleen, with effusion of blood into the peritoneal cavity. There were no signs of peritonitis, but well-marked evidences of chronic parenchymatous nephritis.

COMPOUND FRACTURE OF TIBIA AND FIBULA—LISTER'S DRESSING—DEATH.

The patient was injured by a fall from his wagon, together with a kick from the horse at the same time. On admission there was diagnosed a compound comminuted fracture of the right tibia in its upper third and a simple fracture of the fibula, with an opening about half an inch in diameter leading down to the bone. The hemorrhage was very free. Three hours after the receipt of the injury the limb was put up in Lister's dressing, the wound having been previously injected with a solution of carbolic acid of the strength of one part to twenty. After that the dressing was changed about every three days. The leg continued very much swollen and oedematous, but there was no elevation of temperature. On the 16th day it was noticed that there was a great deal of redness around the wound, when the dressing was again changed. The next day the swelling continued undiminished, and the redness had extended up to the thigh. The dressing was again removed. On the 18th day the spray was discontinued, the antiseptic treatment in all its details being no longer thought applicable. Six days afterwards, the injury having done badly, the Lister dressing was abandoned entirely, and the leg hung in a sling while poultices were applied. At this time there were noticed cough and rusty expectoration, and on examination it was found that there was dullness on percussion, with bronchial breathing on the right side of the chest. Shortly afterwards a typhoid condition was developed, and the patient died one month and two days after the accident.

HYDROCELE—OPERATION FOR RADICAL CURE.

Twelve months previous to admission the patient (aged 20) noticed a gradual enlargement of the scrotum on the left side, proceeding from below upward, painless, and unattended with any constitutional disturbance. It increased slowly, but never attained any great size. The inguinal canal was found to be empty, and the cord, with the elements thereof, distinct. There was fluctuation, translucency, and dullness on percussion. The tumor being tightly grasped above by the left hand, a small incision was made in the integument, and a trocar and cannula plunged in. About four ounces of clear, amber-colored fluid were evacuated, which showed an abundant deposit of albumen under the ordinary tests. One drachm of undiluted tincture of iodine was then injected, the injection being followed by very severe pain for about an hour, when it gradually subsided. Within ten days the patient was discharged convalescent.

RECURRING SARCOMA IN STUMP AFTER AMPUTATION OF LEG—REMOVAL.

The amputation, in the middle third of the leg, was performed by Dr. Sands in January last at the Roosevelt Hospital, for malignant disease, which had existed for seven years previously. The stump healed in six weeks, and the patient, a female of 48, remained perfectly well for nine months. About four weeks before admission she felt a sharp pain in the stump, and on examining it she discovered a small nodule similar in character to the one that preceded the former growth. At the time of admission her general health was excellent and her appetite good. Situated in the dependent part of the stump was found a tumor, which was hard, distinctly circumscribed, about one and a half inches in diameter, and not painful or sensitive to the touch. The skin moved freely over it. An incision was made in the line of the old cicatrix and the tumor dissected out. There was very little hemorrhage, and the edges of the wound were brought together with catgut sutures. It was dressed with a layer of gauze and borated cotton, covered with gutta-percha tissue, held in position by a bandage. In two weeks the patient was discharged cured, there having been no elevation of temperature at any time.

THROMBOSIS OF VULVA.

The patient, while engaged in washing, slipped and fell over the wash-tub, causing a severe contusion of the vulva. Swelling began immediately, and on the following day a severe hemorrhage took place. She did not apply for treatment until five days after the injury, and in the meanwhile had lost a great deal of blood. On admission the vulva was found to be oedematous and greatly swollen, and there was a large lacerated wound on the left side, about three inches in length, and filled with clotted blood. The clots were turned out and the wound dressed with salicylized jute, after which the patient made a good recovery.

CHANCROID.

The following treatment has been found serviceable in a considerable number of cases. First, salicylic acid in powder is sprinkled over the sore, and then the following wash is applied:

R. Acid salicylic,  
Sodii borat. . . . . ʒi gr. xv.  
Glycerinæ. . . . . fl. ʒj.

M.

In one case, in a female, the chancroid was touched with nitrate of silver and then dressed with black wash.



## EXTENSIVE SUPERFICIAL BURNS.

The burns were the result of an explosion of gas escaping from a city main, and involved both hands and forearms to the elbow, and the back of the neck and forehead. On admission the patient was suffering intensely, and thirty minims of Magendie's solution of morphia were hypodermically injected before any relief was afforded. The following treatment was employed. To the hands and arms vaseline, combined with oxide of zinc and a few grains of salicylic acid, was applied, and to the face and neck vaseline alone. When the sloughs began to separate, they were dressed with salicylized jute, a layer of gauze being interposed between it and the burned surface. On two of the fingers of each hand the burns were quite deep, and on the posterior surface of the ring-finger of the right hand the joint was exposed, so that splints had to be used for both hands. The result was satisfactory.

## SARCOMA OF TESTICLE—HYDROCELE—CASTRATION.

Fifteen months before admission, the patient, a music-teacher aged 48, noticed that the left testicle had become hard and enlarged, and six months afterwards the enlargement seemed suddenly to increase and to become soft and fluctuating. He applied for treatment and was put upon iodide of potassium, the tumor itself being painted with tincture of iodine, which caused it to shrink in size and become hard once more. This shrinkage was only temporary, however, and the testis soon began to increase steadily again, the growth being from below upward. At the time of admission his general health was excellent, and he had six children, all of whom were in good health. His parents were scrofulous, and two sisters died of cancer. He had never had syphilis. The tumor was found to completely involve the left side of the scrotum, extending up on the abdomen for a short distance. It was hard below, and somewhat less resisting above. It was dull on percussion (which caused the patient pain), did not transmit light, and gave no impulse on coughing. It was rather egg-shaped in appearance, and its long diameter was  $6\frac{1}{2}$  inches, while its circumference was  $9\frac{1}{4}$  inches. The spermatic cord could not be felt.

By means of the aspirator (the needle being inserted at the upper part of the tumor), nearly three ounces of clear amber-colored fluid was withdrawn, which became solidified on the application of heat and nitric acid. After the aspiration, the vertical diameter of the tumor was  $5\frac{1}{2}$  inches and its circumference  $7\frac{1}{2}$  inches, while the cord could now be distinctly felt, and was found to be normal. Two days afterwards (during which the sac had filled to its former size) an incision about five inches in length was made, extending downward throughout the length of the tumor and cutting through the dartos and tunica vaginalis, which of course emptied it of fluid. The testicle was then enucleated, and the cord having been seized high up with a clamp, was divided at a point where the tissue was healthy. Four or five arteries were tied with catgut ligatures, which were cut off short and allowed to remain in the wound, while catgut sutures were used to close it. The dressing was borated cotton, a layer of gauze being placed between it and the wound. The patient did well, and was discharged cured at the end of a month. The tumor was found to be a soft sarcoma, implicating the entire testis and containing a cyst in its centre.

## STRICTURE OF URETHRA—URETHROTOMY.

The patient had twice suffered from complete retention of urine. On the introduction of a bulbous in-

strument two strictures were detected, one just behind the meatus, admitting a No. 11 bulb (English); the second,  $2\frac{1}{4}$  inches from the meatus, admitting a No. 13 (English). The stricture behind the meatus was cut with a bistoury, and the deeper one with Otis's instrument. After the division the urethra admitted a No. 17 (English) sound. The patient made a good recovery, being discharged cured at the end of a month.

## PERITYPHLITIS—RECOVERY.

Two and a half years before the patient had an attack of illness, which lasted six weeks, and for which he was treated at the Roosevelt Hospital. From the symptoms described it was probably perityphlitis. After that he remained perfectly well up to ten days before admission. He then noticed pain, tenderness, and swelling in the right inguinal region, where the same trouble had made its appearance in his former attack. The symptoms continued to increase in severity until he came into the hospital, when it was found that the pain was continuous, and for the most part dull in character, though at times sharp and lancinating. He had had no movement of the bowels since the onset of the affection, though three days previously he had taken a large dose of Epsom salts. He had vomited on each of the two days preceding his admission, but did not vomit on that day. There was dulness on percussion in the right inguinal region. He was ordered a dose of castor-oil, which produced a slight movement of the bowels. For five days afterwards he continued to have the same tenderness and pain in the inguinal region, with obstinate constipation and elevation of temperature, at the end of which time suppuration was detected low down in the abdomen, near the median line. The patient was etherized, and an incision about two inches in length made parallel with Poupart's ligament. The discharge of pus was very great, and the finger being inserted into the cavity of the abscess, it was found to extend upward and outward in the direction of the caecum coli. The pus was extremely offensive in odor, but contained apparently no fecal matter. The temperature at once fell to the normal standard, and the patient made a prompt recovery; the only drawback being a difficulty in passing urine, which continued for a few days.

## RECURRENT NASO-PHARYNGEAL POLYPUS.

The growth began four years ago, and two years since the superior maxilla of the right side was excised and the tumor removed. It grew again, however, and in the May following a second operation was performed. Last January it was removed for the third time, and in March, Dr. Sands, under whose treatment the case had been from the beginning, noticed still another recurrence of it; and from May to August it was treated by means of electrolysis. On admission it was found that the growth did not interfere with deglutition or respiration, and that it caused only a slight thickness of speech. The man had worn an artificial jaw since the removal of the bone, which concealed all deformity of the face in a very satisfactory manner. The patient having been etherized and a gag inserted, the stump was touched in every part with Pagelin's benzine cautery; and two days afterwards he was discharged.

## CANCER OF THE CHEEK—OPERATION.

Six or seven weeks before admission, the patient, a man of thirty-nine, noticed a slight soreness and smarting on the buccal surface of the left cheek, and then felt a small prominence, which gradually increased in size afterwards. It gave him very little an-

noyance, however, unless acrid fluids came in contact with it. His family history was good, and his general health excellent. When he came into the hospital there was found a small, hard, elevated tumor on the inside of the left cheek, and a considerable enlargement of one of the glands of the neck near the angle of the jaw. An incision two inches long was made from the angle of the jaw downward and forward, dividing the fibres of the platysma myoides transversely, and the enlarged gland was found somewhat adherent to the surrounding tissues, so that it could not be enucleated without considerable cutting. One artery and one vein were tied. The lips were then grasped to control the coronary artery, and an incision was made through the cheek from the left angle of the mouth almost to the anterior border of the masseter muscle, when the coronary artery was ligated, and the second molar tooth of the lower jaw extracted. The tumor was completely excised, and a growth implicating the neighboring gum removed with a bone-scraper. A number of arteries had to be tied, and other bleeding points were touched with the actual cautery. The principal wound was closed with hare-lip pins and twisted sutures, while the wound in the neck was left partly open and dressed with gauze and absorbing cotton. Three days afterward the hare-lip pins were removed, and firm union was found. The cavity in the neck was dressed with picked lint saturated with carbolized oil, over which the absorbing cotton was placed. At no time after the operation did the temperature exceed  $101\frac{1}{2}^{\circ}$ , and the result was very satisfactory.

**GANGRENE OF THE FOOT—SYME'S AMPUTATION UNDER CARBOLIZED SPRAY—LISTER'S DRESSING SUBSEQUENTLY.**

The patient was a child of five years, who was injured by having a street car pass over his foot. On examination it was found that there was compound fracture of the metatarsal bones of the right foot and severe contusion of the left. The tissues looked black and soggy, and gave evidence of very little vitality, while the odor was putrid. The boy was very restless, and the temperature  $101\frac{1}{2}^{\circ}$ . A consultation was held, at which it was decided not to operate. The wound was dressed with carbolized oil, and small doses of opium were given to alleviate pain. In four days the slough on the right foot had separated, involving half the foot. The tissues of the left foot presented a dark and sloughy aspect. Five days afterward an abscess of large size showed itself on the inner side of the left ankle, and the tissues of that foot, though not gangrenous, did not present any reparative changes. Two weeks after admission Syme's amputation was performed on the right foot under the carbolized spray. Five vessels were tied with catgut ligatures, a drainage-tube inserted, and the flaps secured with silver sutures; after which Lister's dressing was applied. The abscess on the left foot was then opened under the antiseptic spray. There was a considerable discharge of pus, but when the finger was inserted into the cavity, it was found to be superficial. It was injected with a solution of carbolic acid (one part to twenty), dressed after Lister's method, and the protective net employed. In ten days the flap had sloughed away, leaving the bone exposed. On either side was seen a line of new granulation tissue. A wet-dressing was then applied, the Lister being discontinued. The next day a strap-and-extension apparatus was applied in order to bring the edges of healthy skin near each other, and so cover the bone. The case is still under treatment.

**PUNCTURED WOUND OF PERINEUM—RUPTURE OF URETHRA—PERFORATION OF RECTUM.**

The patient, a boy of thirteen, while attempting to balance himself on one foot on the top of a fence, slipped and fell astride of it, impaling himself upon an iron spike. On examination, it was found that there were two lacerated wounds in the perineum, one immediately in front of the anus, extending upward for a distance of two or three inches and perforating the gut, and involving the other near the scrotum and rupturing the urethra. The hemorrhage, which was very profuse, was controlled by pressure. The urine passed first through the perineal opening; but two days afterwards there being retention, the patient was etherized, and while this was being done he passed a large quantity of water in the bed. He was then placed in the lithotomy position and attempts made to introduce a catheter, but without success. The two wounds were made into one by an incision through an intervening band of skin, and it was probed with the hope of finding the proximal end of the urethra. This also proving unsuccessful, a catheter was again introduced through the meatus, and this time it fortunately entered the proximal end of the urethra in the wound and then passed into the bladder. Finally the catheter was tied in position. The case is still under treatment, but at last accounts was progressing very favorably.

In another case very similar to this, in which impassable stricture followed the accident, Dr. Sands performed perineal section without a guide, and the case terminated successfully.

**DEATH OF A NUN FROM HYDROPHOBIA.**—A sister of the *Ordre de Troyes*, who had been engaged in the care of the sick, died in Paris last October, of an attack of hydrophobia. The disease had been contracted under circumstances so peculiar that they deserve mention here. About a month before her death, she was walking in the country with a party of five small children, the oldest of whom was only eight years of age, when the party was suddenly attacked by a large sheep-dog. The sister immediately threw herself between the frightened children and the dog, and was badly bitten. The maddened animal, excited by the cries of the children, then made a rush at them, but was again intercepted by the brave sister. The devoted woman threw herself upon the animal and held on to him for over ten minutes, rolling over and over on the ground with him, and endeavoring to strangle him and to thrust her hand into his throat. Finally, some peasants came to her rescue and killed the dog. When the sister's wounds were examined, fifteen deep lacerations were found on her hands and arms. These were at once cauterized with ammonia, and one large artery which had been opened was ligated. Two hours later she was seen by a physician, who cauterized the wounds anew with a hot iron. As soon as the condition of her wounds permitted, the patient was removed to Paris. For some time hopes were entertained of her recovery, but, three weeks after the wounds were received, symptoms of hydrophobia set in, to which she succumbed six days later. During her sickness her conduct was marked by the same courage and devoted self-abnegation that characterized it on the occasion of her conflict with the mad dog. It is difficult to find words to express the admiration that every man must feel for heroism like this. The noble act of the obscure sister is a title of imperishable glory, not only for herself, but also for the order of which she was a member, and for her entire sex.



# THE MEDICAL RECORD:

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## INSANE ASYLUM MANAGEMENT IN THE STATE OF NEW YORK.

IN the course of a somewhat extended review of Dr. Bucknill's "Notes on Asylums for the Insane in America," the editor of the *Journal of Nervous and Mental Diseases*, Dr. J. S. Jewell, animadvertes with a deal of directness and severity upon the extravagance of asylum management in this State, and makes sundry statements, as to the expenses of the New York State Lunatic Asylum at Utica, which are very damaging to the reputation of one of our most distinguished experts, unless, as must be presumed, the latter gentleman can satisfactorily explain them. It happens that the attention of Dr. Bucknill was called to the cost of support at Utica—one of the institutions he was careful to visit while here—which he states at \$4.50 per week, and in striking contrast with an average a fraction less than \$2.50 in British institutions of the same grade. The eminent English alienist attempts to account for the difference between the weekly cost of maintenance at Utica, \$4.50, and that of the New York City Asylum, \$1.30 per week. His impression from a visit to the latter was that the patients were badly clad and insufficiently fed; but in the end he frankly confesses that the extraordinary disparity cannot be more than partially due to that fact. The general weekly average at American asylums Dr. Bucknill puts at \$4.00, which is near enough for practical purposes. Dr. Conrad, of the Maryland Hospital for the Insane, in his admirable pamphlet on the "Financial Relations of Lunacy," has collated the statistics of 58 State hospitals, with exact and reliable results as to maintenance expenses; and from a summary of his figures it appears that the number of patients under State hospital treatment at the beginning of the year 1876 was 26,433, at a total annual cost for the 58 hospitals of \$4,803,748. The average in each asylum was 440 for the year 1875, and the average annual cost of main-

taining each patient was \$182—exactly \$3.50 per week. Another collection of hospital statistics in our possession gives the annual per capita cost for 1876, in 16 asylums, as follows:

|                                         |          |
|-----------------------------------------|----------|
| Connecticut Asylum for the Insane.....  | \$291.00 |
| Minnesota Hospital for the Insane.....  | 185.80   |
| North Carolina Insane Asylum.....       | 286.00   |
| Taunton Lunatic Asylum.....             | 104.81   |
| Toronto Asylum for the Insane.....      | 133.51   |
| Maine Insane Hospital.....              | 241.00   |
| Eastern Lunatic Asylum, Virginia.....   | 196.75   |
| Western Pennsylvania Hospital.....      | 241.00   |
| Vermont Asylum for the Insane.....      | 189.00   |
| Tennessee Asylum.....                   | 190.67   |
| State Lunatic Asylum, Harrisburgh....   | 254.00   |
| Northampton, Mass., Asylum.....         | 192.55   |
| New Jersey Asylum for the Insane.....   | 304.49   |
| Indiana Hospital for the Insane.....    | 233.50   |
| Athens, Ohio, Hospital for the Insane.. | 184.00   |
| Wisconsin Asylum for the Insane.....    | 291.00   |

Yearly average..... \$235.57

Weekly average..... \$4.34

Dr. Conrad finds the yearly average in 53 first-class State and corporate asylums, adduced in concluding his pamphlet, to be \$206.49, or \$3.97 per week; while Dr. Callender, from a collation of 20 asylums in different sections of the United States, deduces an average of \$230.50 a year, or \$4.43 per week. The last is doubtless an excessive estimate.

Dr. Jewell has been at the pains to collate the facts and figures of the reports of Dr. Gray, of the asylum at Utica, from 1869 to 1876 inclusive. During this period it appears that, for the maintenance of a daily average of 600 patients, an average yearly amount of \$173,260 has been expended. This represents a rate of \$5.55 a week for each patient, which is 57 per cent. in excess of Dr. Conrad's statistics for 58 asylums, 40 per cent. over Dr. Conrad's average for 53 asylums, and 25 per cent. above Dr. Callender's extremely liberal average. Taking the statement of Dr. Jewell, that the average weekly cost in American asylums of the first class is \$4.00, the Utica reports show an excess of \$18,360 a year for eight years in the maintenance account of the superintendent, in addition to which he has received an average sum of \$37,850 per year for repairs and improvements, while the capacity of the asylum has not actually been increased in the least during the eight years under review. Putting these two items together, Dr. Gray's total yearly excess since 1869 has averaged the enormous amount of \$86,210; and during the last eight years the institution managed by him has cost the State of New York \$682,680 in excess of what might have been expected, comparing it with the expenditures of other asylums. As this city has to pay one-half the extraordinary and a part of the ordinary

expenses of the State asylums, in addition to supporting one of her own, the management of the institution is consequently one of very immediate interest to our already overburdened taxpayers. These, it should be understood, are Dr. Jewell's figures, not our own, although they are carefully verified by the reports to which he refers.

That there should be a considerable discrepancy between weekly averages of the New York City Asylum and the Utica would naturally follow, for, while the former receives pauper patients only, the latter admits private and paying ones, in addition to those received from the various counties. But it will be admitted, as Dr. Bucknill very mildly observes, that a difference of 250 per cent. is rather too extreme to be passed over without inquiry by the public, or without such an explanation by the superintendent as a careful examination of his reports fails to afford. For, on investigation, it appears that Dr. Bucknill was not any more correctly informed, when he stated the weekly average at Utica at \$4.50, than when he stated the general average at \$4.00. On the contrary, a collation of the reports of the asylum for the last eleven years, 1866 to 1876, including both, shows that the real weekly average, as based upon receipts from counties, from pay patients, and upon salaries and clothing, is 25 per cent. greater than stated by Dr. Bucknill, and about the same as stated by Dr. Jewell upon collation of the reports from 1869 to 1876. As the table is interesting, altogether exclusive of its bearing upon the justice of Dr. Jewell's strictures, our readers will no doubt be glad to have it in a form for easy reference when necessary.

|           | Patients. | Weekly<br>Cost of Board. |
|-----------|-----------|--------------------------|
| 1866..... | 643 ..... | \$4.85                   |
| 1867..... | 610 ..... | 4.77                     |
| 1868..... | 590 ..... | 5.34                     |
| 1869..... | 600 ..... | 4.86                     |
| 1870..... | 630 ..... | 4.92                     |
| 1871..... | 605 ..... | 5.04                     |
| 1872..... | 588 ..... | 5.16                     |
| 1873..... | 563 ..... | 5.11                     |
| 1874..... | 581 ..... | 5.56                     |
| 1875..... | 595 ..... | 5.90                     |
| 1876..... | 615 ..... | 5.92                     |

For the last ten years, by way of contrast to this, at the Northampton Asylum, Mass., the average number of patients has been 430, at an average price received for each patient per week of \$3.78. Indeed, from the statements of the report of the asylum for 1877, pages 22 and 23, it appears that the institution receives only \$3.50 per week for town patients, exclusive of clothing. For private patients the income varies, but the average of all of this class who were in the house at the end of the fiscal year 1877, was \$5.13, which covered all necessary expenses, exclusive of clothing and damages. The average weekly pay per capita,

which the hospital received last year for patients of all classes, was \$3.70.7—that is to say, a minute fraction less than \$3.71, which, it will be observed, is a fraction less than the average as calculated upon the reports of the last ten years. Such is the exhibit of the Northampton Asylum as compared with the Utica hospital. And yet the former has accumulated, as profits for ten years, \$154,127.19, invested in real estate, repairs, improvements, and supplies on hand—a difference very difficult to explain when one considers that coal is nearly twice as expensive at Northampton as at Utica, flour averaging at least one dollar a barrel more, and all provisions, supplies, and labor being somewhat higher. How, then, is it that the one makes money at \$3.78 per week, and the other is constantly calling for deficiency appropriations—\$310,941.74 for the last ten years—at a weekly average of \$5.50 per patient? The average deducible from the preceding figures is, it should be stated, exclusive of clothing, which ought of course to be set down to the account of maintenance, although Dr. Gray usually reports it under the head of extraordinary expenditures. For the year 1871, for instance, he transfers \$16,143.42 for clothing, \$19,705.74 for ordinary repairs, and \$11,380.47 for farm work, to the column of extraordinary expenditures, thus obtaining a factitious weekly average of only \$4.96.

Dr. Jewell's criticism is to the point here; and since he is an expert in these matters, his strictures are worth quoting:

"In 1874," says Jewell, "he (Dr. Gray) properly reports the sums for ordinary repairs (\$30,420.87), and for farm expenses (\$10,250.68), as ordinary expenses, in this way reducing the sum of his extraordinary expenditures to a less immoderate amount (\$16,743.13), and making a few thousands more or less in the gross sum of his ordinary expenditures (\$212,790.08). But when this sum comes to be used as a basis for calculating the weekly cost per patient, it is found to yield the extravagant rate of \$7.18. Here Dr. Gray proceeds to add a third division, which he calls current expenses. This term has hitherto been used to denote the monthly or quarterly sums which, added together at the end of the year, form the ordinary expenditures, and in the accounts of all public and private institutions these terms cover exactly the same items, and are in fact the same."

By reference to the reports it is easy to see the distinction that Dr. Gray has set up between ordinary expenditures and current expenses for 1874. The former amounted to \$212,790.08; the latter to \$187,188.07. Both are exclusive of clothing; but, to obtain the latter, and so bring the weekly average down to \$5.42, the salaries of officers (\$14,610.58), the amount for ordinary repairs (\$30,429.81), and two small items (\$1,501.69) are deducted, thus reducing the total by \$55,602.01. And yet the salaries of officers and the sums paid for ordinary repairs are as truly and prop-



erly to be reckoned under the head of current (running) expenses as provisions and medicines are. Dr. Gray has, no doubt, very good reasons for adopting such a distinction, apparently without a difference, as has just been designated. But, in these days of juggling with figures and accounts, even he ought scarcely to venture to introduce a novelty in account-keeping, without a foot-note explaining what it means. Of course, the true cost of each patient per week, calculated as it always is (and should be) upon the basis of ordinary expenditures, is \$7.18 for the year 1874—which is 80 per cent. above the average in first-class asylums.

Take another instance. In the 1871 report, alterations and repairs (\$19,705.74), farm and garden work (\$11,380.47), grading (\$3,585.76), together with \$210.80 for water and \$16.50 for sewers, are classed as extraordinary expenditures, without the least apparent reason save to reduce the weekly average per patient from \$6.71, the real figures, to a factitious \$4.96.

These are specimen points in the reports of Dr. Gray that will strike the analytic reader as disingenuous, if not as experimenting with figures to make a better showing than a plain statement of the facts could justify. *Prima facie*, the figures, when properly examined, furnish palpable evidences of extravagance at the Utica Asylum; and the natural presumption gathered from such novel distinctions as the superintendent makes between ordinary expenditures and current expenses, is that they were designed merely to cover extravagance and recklessness of administration. A medical superintendent, although nominally the sole responsible officer, may not, when the actual facts are exposed, be found responsible for such maladministration as the foregoing data imply. But he is responsible for any attempt, if such attempt exists, to conceal a vastly augmented weekly average by means of a mathematical legerdemain; and for this, holding ourselves ready to make the *amende honorable* should Dr. Gray offer sufficient reasons for his manner of book-keeping, it is our bounden duty as a medical journal to ask him for an explanation. The questions at issue between himself and Dr. Wilbur have assumed a cast too personal to admit of comment or to pique public interest. But the people of this city and State may well commence to ask questions, when such an expert as Dr. Conrad can describe the results of our present extravagant administration of lunatic asylums in such terms as follows: "New York State has seven lunatic hospitals now in operation, with a capacity of 3,859 patients. These seven hospitals have cost the State \$3,617,122; besides which she is now building three others, at an estimated cost of \$4,000,000. If the State of New York has 407 insane that become incurable cases every year, how is it possible for her to provide hospital accommodations for them at such a rate of expenditure as \$1,074 per capita? Such a

course would result in financial suicide to the State, and any attempt on the part of philanthropists to continue the system of hospital building for the insane must result in injury to the interests of this unfortunate class whom it is their duty to guard and protect. The system of hospital construction now pursued would cost the State at least \$500,000 annually for construction alone, besides their subsequent maintenance. Governor Tilden justly condemns it. The table to which I have before referred shows that the cost of 55 of the 67 State hospitals whose cost I have been able to collect, amounts to \$29,879,258, or an average cost of \$543,259, or a per capita cost of \$1,074. The total cost of maintaining 58 hospitals for the insane I find to be \$4,803,748, or \$82,819 for each one. The average cost of each patient is found to be \$182. Add the interest on the total cost of buildings (\$29,879,258) at 6 per cent. to the annual cost of maintaining these hospitals, and it makes \$6,596,503 as the annual cost of maintaining, and increases the per capita annual cost of maintaining each patient to \$249."

Such is the rapid outline of insane asylum management in the State of New York. One may, of course, set all this to the account of a bad system; but one should remember always that a bad system well administered is better than a good one badly administered. It is not exactly the fault of our system that so many unnecessarily costly hospitals are in progress in this State, and that Dr. Gray has discovered a difference between ordinary expenditures and current expenses. It is partly, perhaps, due to the fact that the medical press at large has accorded too high a confidence to so-called experts, and has consequently often forborne criticism where it was most decidedly deserved.

#### MEDICAL CERTIFICATES IN THE DAILY PAPERS.

IN another column we give the resolutions accompanying the report of the Committee on Ethics of the Medical Society of the County of New York, regarding the publication of medical certificates in the daily papers. It is a matter of congratulation to the members of the Society and to the profession at large, that this committee has so well understood its duties, and has so satisfactorily performed them. The Society, by adopting the report, has risen to the emergency of the occasion, and in an unmistakably authoritative manner has established a precedent for future action. It has declared that the publication of medical certificates in the daily papers is a direct violation of the letter and spirit of the Code of Medical Ethics; in fact, that any action, directly or indirectly, which shall invite the attention of the laity to a medical man as a practitioner of medicine, is in the highest degree "repugnant to the high sense of honor that should govern the medical profession."

That the gentlemen who have signed the certificates for mineral waters have done wrong, no one ever

doubted, but now the protest against such an act is official and beyond a question. The Society has ordered the withdrawal of their names. Although the withdrawal has actually anticipated the report, the Committee has received no official notice to that effect. It is eminently proper that it should insist upon such notice, in order to complete its work in this particular instance. All now that remains to be done by the gentlemen who signed these certificates is to comply with such request, to admit the error they have committed, and thus end forever the writing of medical certificates for the daily papers.

We believe that the Committee acted wisely in not subjecting these gentlemen to any further discipline, as the profession has been from the start more interested in settling the principle than in punishing the individuals.

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE. SURGICAL SECTION.

*Stated Meeting, January 8, 1878.*

DR. STEPHEN SMITH, CHAIRMAN.

#### URINARY CALCULUS OF EXTRAORDINARY SIZE.

DR. JAMES L. LITTLE presented a specimen of urinary calculus, accompanied by the following history: A young man two weeks previously came under his observation, who was suffering from symptoms referable to the bladder. The chief symptom was incontinence of urine, from which he had suffered about four years. His urine had dribbled continuously. He had suffered but little pain. A sound was passed, and just before it entered the bladder a hard substance was struck. It was impossible to get the instrument into the bladder. A finger was passed into the rectum, when a large, hard substance was detected distending the neck of the bladder, and pressing on the rectum. Pressing on the perineum a hard mass was felt, which was quite readily pushed back into the bladder. The patient entered St. Luke's Hospital, and lithotomy was performed by the median operation, notwithstanding the apparent large size of the calculus. Not very much difficulty was experienced in removing the stone, because of the dilatation already existing in the urethra. When removed, the calculus was found to have an irregular shape, and measured five inches in circumference at the portion which presented in the urethra; three inches in its longest diameter; and it had an elbow-like projection which was nearly one inch in length. Somewhat more than the usual amount of hemorrhage occurred, the bulb of the urethra being unavoidably cut, and it was necessary to ligate two or three vessels. At the time of the report the patient was doing well, no unfavorable symptoms having appeared.

#### SOME PRACTICAL TESTS OF THE CLAIMS OF THE ANTISEPTIC SYSTEM.

THE CHAIRMAN, Dr. Stephen Smith, presented a report upon antiseptic surgery. Reference was first made to the views of John Hunter regarding subcuta-

neous and open wounds; that the first seldom inflamed, and that the second commonly both inflamed and suppurated. Paget had remarked regarding the doctrines of Hunter, that they embodied the principles upon which was founded the entire practice of subcutaneous surgery. The claims of the antiseptic system of treating wounds, according to Lister, were that it prevented putrefaction from taking place in consequence of the irritation produced by atmospheric germs, and reduced open wounds to the condition of subcutaneous wounds. In a case of simple fracture, the injury, though subcutaneous, was most severe, and the interstices of the tissues were filled with blood. There were present, in an aggravated form, those conditions which were followed by violent inflammation, with the exception of the open air, but, thanks to an unbroken integument, all proceeds quietly and surely towards recovery. Closing wounds was the practical result of Hunter's theory, in order to avoid the irritating effect of the oxygen in the air; but the oxygen could not be effectually excluded. The advocates of the antiseptic system aimed to render the air inert by destroying the element (microscopical organism) which gave rise to putrefaction, and which floated in the air in abundance as one of its constituents, rather than by excluding the chemical action of oxygen upon the exposed tissues.

Dr. SMITH related the history of several cases which showed the value of the antiseptic system.

#### COMPOUND FRACTURES.

CASE I.—Compound comminuted fracture of the tibia near its middle portion; union of the bone, and recovery at the end of the eighth week.

CASE II.—Compound comminuted fracture of the tibia just below the tubercle; joint filled with blood, and blood flowed freely from the wound; temperature never rose above 100° F. At the end of the ninth week the patient was discharged with sound limb and a good joint.

#### ABSCESS OF THE THIGH.

CASE.—Abscess involving nearly the entire thigh and hip; free incision; discharge of clots of blood, and flakes of connective tissue in immense quantity; discharge forced out by pressure; cavity thoroughly washed out with carbolic solution; walls of the abscess immediately approximated by firm pressure; no evidence of inflammation or suppuration; abscess healed at the end of the fourteenth day.

#### SPINAL ABSCESS.

These cases had hitherto been regarded as incurable (Gross). Under the antiseptic system, lumbar and psoas abscesses were most hopeful cases for treatment, provided they were kept under the antiseptic plan until the sinuses were cicatrized.

CASE.—Posterior curvature of the spine involving the lower dorsal vertebra; abscess; free incision; thorough washing with carbolic acid solution; drainage tube; slight discharge subsequently, but at the twelfth day the abscess was regarded as cured. This case was not regarded as "exceptional," for such abscesses uniformly suppurated freely when opened freely, especially in hospital cases.

#### SPINAL CARIES.

CASE.—Spinal caries; curvature in upper dorsal region; abscess opened; cavity thoroughly cleaned with carbolic solution; deeper parts washed out by means of a tube until the solution returned clear;



drainage tube. No symptoms of fever; no evidence of putrefaction. The opening healed, and it was believed that the caries was cured.

#### LIGATED ARTERIES.

Reference was made to several cases in which the carbolized catgut ligature had been used in securing arteries, and with most satisfactory results.

#### GUNSHOT WOUND OF THE KNEE-JOINT.

A case was related in which free incisions were made, the joint freely exposed under the antiseptic system, and the patient recovered without bad symptoms, and with fair motion.

#### TWO CASES OF REMOVAL OF CUBOID BONE—ABSENCE OF SUPPURATION.

Reference was made to two cases in which the cuboid bone had been removed, and neither suppuration nor inflammation followed. The wound did well, although the patients were in a very poor condition. Dr. Smith believed that the objections to Lister's method, because of its being a complicated dressing, and one requiring special skill for its successful use, were fanciful and not real. The necessary care in its application became habitual and instinctive, and in the aggregate it saved the surgeon a great deal of time, for it was not necessary to change the dressings nearly so often as when the old method was employed. The antiseptic system inspired the surgeon with confidence relating to the occurrence of gangrene, erysipelas, and the management of many cases which heretofore have been discouraging.

DR. LITTLE referred to cases of amputation of the breast, in which, under the use of the antiseptic system, the wounds had healed without suppuration or rise of temperature above 99° F. A large number of capital and minor operations were referred to in which he had employed the antiseptic dressings with most satisfactory results. With reference to the use of the carbolized catgut ligature it was remarked that, if the surgeon's knot was employed, it was impossible to tie the ligature sufficiently tight to cut the inner and middle coats of the artery. The square knot should be used in ligaturing arteries, and it was thought the occurrence of secondary hemorrhage, in some cases at least, might be explained by the fact that the surgeon's knot was employed.

An objection to nearly all the apparatus was that it did not produce a sufficiently fine spray.

DR. MASON did not regard the antiseptic system as a simple process, and one which could be used without considerable extra precautions and labor; it was, indeed, quite an elaborate dressing. Nor was he able to believe that it was not just as well to douche the surface with carbolic solution as to keep the patient in a carbolic fog. The use of carbolic acid he regarded as indispensable, but that all the expensive and troublesome apparatus employed was necessary to exclude the subtle germs from a wound, appeared to him to be rather problematical.

Callender's results were very nearly equal to those obtained by Lister, and he used the carbolic acid solution, and not the spray.

At this point considerable discussion arose with reference to what became of the catgut ligature in certain cases. Did the animal tissue become vitalized, or was it displaced by a new formation which presented the same appearance as that presented by the original ligature?

The Section then adjourned.

## Correspondence.

### FRACTURE OF THE FEMUR IN CHILDREN.

HOW EXTENSION FROM ABOVE THE POINT OF FRACTURE CAN AID COAPTATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In a general way it may be stated that fracture of the femur is the most serious of the amenable accidents which happen, suddenly, to the long bones of children. The ingenuity of the surgeon, or of the general practitioner, is sure to be severely tested when called upon to attend a case of this accident. It devolves upon him to evolve a good result by simple means. The result may be benign and satisfactory, which will be creditable to him; or it may be disastrous or deplorable, which is sure to be construed as a serious discredit to him. Hence, the lecture of Prof. Frank H. Hamilton on "Fractures of the Shaft of the Femur in Children," published in the RECORD of Jan. 5th, is of special interest. The best method of treating this accident is yet an unsettled question; and the manner in which the subject is discussed in that lecture is fresh, and the method of treatment progressive. Dr. Hamilton's method is an improvement, no doubt, and, probably, it is the most preferable. Two cases of this fracture in children, under my care some years ago, were treated by a method rather unusual, and resulted in a manner the most happy to each patient—a perfect limb. Perhaps the result was, in each case, an accidental occurrence; or, perhaps, the method may be founded on sound principles. So, if the RECORD can afford space for this report, it may be a small contribution to the history of treatment in such accidents to children.

CASE I.—Peter Flood, a healthy, muscular child, aged five years, had his left thigh-bone fractured above its middle by a plank falling on it, Aug. 19, 1868. I first saw the case after he had been carried home and placed on a bed. He was lying on his left side, with his body bent over toward his injured thigh. Any attempt at approximating the body and limb to a direct line caused him to manifest intense agony, but if allowed to remain in his chosen position he did not complain much, except when hurt by the gentle manipulation necessary for arriving at a correct diagnosis. It was found that the femur was fractured a little above its middle, with a very marked deformity. His resistance to having the limb extended was an admonition to which I gave considerable heed in adopting a plan of treatment. The plan was about as follows: Having coaptated the fragments, the patient was placed on his left side, on a mattress, on a single cot-bedstead, with the thigh flexed somewhat, and the knee, slightly bent, elevated four inches from the mattress by proper supports under the limb. Straps of adhesive plaster were then applied on the internal and the external aspects of the thigh, the straps commencing three inches above the point of fracture, and extending to the knee, and a little beyond it, so as to form a loop sufficient to receive a piece of board three inches square. A light bandage was then snugly placed on the limb from the toes to the groin. Outside of this, on the thigh, were placed four padded, light splints of wood, the one on the external aspect being wider and longer than the others, it extending from the great trochanter to the knee, for the thigh to

rest upon. The splints were secured by five or six pieces of bandage tied around them; which could be untied without disturbing the limb. A piece of pliable board was then placed uprightly by the side of the bedstead, and fastened to it, at a point about a foot and a half below where the knee rested, and extending about a foot and a half above the mattress. Around its upper end was placed a stout rubber ring. This ring and the loop at the knee were then connected by a piece of bandage being passed through each and tied with some considerable degree of tenseness. This tenseness signified the degree of extension force. The foot of the cot or bedstead was then elevated by bricks being placed under each foot-post. This completed the plan for three weeks; and then the wooden splints were removed and a plaster-bandage applied from the knee to the groin. At the end of seven weeks satisfactory union and firmness had been accomplished, and further treatment was merely precautionary. The first week of treatment the patient was seen by me daily; the second week, on alternate dates; the third week, once in three days; and subsequently, once a week.

CASE II.—Eddie Wells, aged  $3\frac{1}{2}$  years, a slender child, with small muscles and frail bones, had his right thigh-bone fractured through its middle, by falling down two steps off the stoop. I first saw the case when he had been placed in bed. His body was bent forward, and he lay on his right side. He made strenuous resistance against any attempt at extending the limb. The plan of treatment was the same as that described in the previous case; except that leather splints were used instead of wood, as the thigh was short and quite small; and also he was kept longer under close care; as his legs, before this accident happened, required artificial support to enable him to stand straight on his feet, and to walk.

The result in each case was that there was neither shortening, lameness, nor deformity. The indications kept in view in the plan adopted in the treatment of these cases were as follows:

*First.*—To maintain unmovable coaptation, and to do this in accord with the action of the muscles which act on the thigh and on the leg. This was aimed at by applying the splints, and by the partially flexed position of the thigh and of the leg. The relative attitude of the leg to the thigh, and of the thigh to the body resembled that which those parts bear to each other when a person is seated on a chair; all the muscles concerned were in favorable positions for rest and quiet.

*Second.*—Extension and counter-extension to be kept up by means of the least possible amount of artificial force, or pressure, or restraint applied to any part of the patient. This was aimed at by the extending force being applied in a manner immediate to the thigh, and in a direction in accord with the natural position and action of the muscles involved; and by the counter-extension being by means of gravitation of the body, and by means of support to the buttock placed under the mattress, or under the hips.

*Third.*—The position of the body and limbs to be such that the restraint on them should be at the minimum, and the range of accommodation at the maximum, so as to enable the patient to comply with the requirements of nature in the greatest degree compatible with the surgical necessities of the fractured limb. This indication was supposed to be fulfilled by the lateral posture of the body and of the injured limb, and by the elevated position of the knee; which posture did really afford a considerable range of motion, cautiously made, at the hip-joint of the injured limb,

without communicating motion to, or making traction on the fractured parts; so that the patient in the course of a week or ten days could place his body in nearly a supine position, and not move the injured limb. This range of motion facilitated evacuations of the bowels, and afforded great relief and comfort to the opposite limbs and to the body. The leg on the injured side was easy and comfortable, and the foot—so abundantly supplied with nerves, and therefore so susceptible of suffering—was spared a great deal of misery, and remained in comparative bliss. Another point worth noting: The adhesive straps made traction on the skin, and through the skin on the soft tissues of the thigh, a little above and around the ends of the fragments, and made this traction in a direction, and in a manner on them, especially on the upper fragment, that had a tendency to keep them in perfect coaptation, and without increasing the circumscribing pressure, which pressure, in proportion to the degree of it, has an effect to obstruct the circulation, and by that means to interfere with the process of nutrition and repair.

In the MEDICAL RECORD of December 15, 1866, there is a report, by me, of a case of gunshot compound fracture of the femur, the ball having passed through from the trochanter major to the trochanter minor. It was a fearful accident, and seriously complicated, and yet the result was highly satisfactory. His life was saved, and a good result obtained by means of immediate extension with adhesive straps on the thigh. My experience in that case and in the foregoing two cases disposes me to believe that immediate extension on the thigh, on the principles above alluded to, is worthy of some consideration, and of further trial. Immediate extension is sometimes made on the leg when its bones are fractured; why not, then, the same plan apply to the thigh in fracture of the femur, especially in the case of children?

WM. M. DORRAN, M.D.

MOUNT VERNON, N. Y., January 21, 1878.

## "HOW TO SUPPRESS QUACKERY."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Dr. Schweig's plan for overcoming the enemy by the use of his own weapons, as set forth in the RECORD of Jan. 19th, is so wise, and so exceedingly well-timed, that I feel strongly moved to urge its adoption.

Although he has stated the main advantages to be derived from it, there are some points which he seems to have overlooked, or at least did not dilate upon, and, therefore, I hope he will pardon me for calling attention to them.

In the first place, 'tis well known that there is no organization of power among quacks, no treaty offensive and defensive, no strong feeling of brotherly love as exists among us. On the contrary, each looks out for himself, advertises to the extent of his inclination or the depth of his pocket. Now, if we but make common cause, and advertise ourselves as a body, shall we not surely overcome quackery by sheer weight of metal, if in no other way?

Of course, as the doctor suggests, it would be necessary to somewhat restrict individual advertisements, and I would suggest limiting them to the space which each might be willing to pay for. To be sure this would make the annual assessments very unequal, for some men of little merit, and perhaps little value to the world, because devoid of *push*, would only demand a line, while those of great capacity for doing



good might possibly require a quarter column in order to place their merits fairly before the world. Still, as the latter would probably *incidentally* obtain greater compensation for their labors, it would not seem unreasonable to require them to pay a greater share of the expenses. Again, this inequality of spaces would give a pleasing variety to the printed pages, and prevent that monotony which appears in an alphabetical list of names, like that of advertised letters, for instance. To enhance this variety, it might be well to allow men of great ability to have their names printed in capitals, with their qualifications set forth in various sorts of ornamental type. Perhaps this might be left discretionary with the printer, as being best fitted to dress the matter up in the most attractive style.

It might be well also to advise those who wish to recommend any proprietary articles, mineral waters, etc., for general use, to give a list of them after their names and qualifications. This would aid the public in gaining all medical information required without the trouble of consulting the advertisements of quacks; and possibly the agents of articles recommended might be induced to bear part of the expense from purely benevolent motives. From time to time it might be well to illustrate the page by a picture of some hospital or dispensary, where patients can obtain the best and most skilful treatment at so much per week or month; or some distinguished surgeon in the act of operating, or a patient artistically harnessed up in some new apparatus. Such illustrations would undoubtedly add interest to the publication, and give it a firmer hold on the affections of the people.

An incidental advantage of the plan would be the saving of expense in other forms of advertising now in use; such as sending circulars to professional brethren, announcing devotion to specialties, certificates of skill from professional friends, etc. This is the more necessary as we all know that our medical journals are very much averse to advancing the true interests of the profession.

With the new plan in vogue all this would be changed, and both the profession and the public—who ought surely to have the benefits of all new discoveries in medical science—would get all the information required, at the least possible cost to the disinterested advertiser.

For these and other reasons, I am ready to engage half a column in all the leading daily papers for a year.

REFORMER.

## RECTAL ALIMENTATION AND MEDICATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I was greatly interested in the paper on "Rectal Alimentation," read before the New York Academy of Medicine, by Prof. Austin Flint, Sr., and published in a recent number of the RECORD, and in the interesting discussion of the paper by Drs. Barker, Peaslee, and others. I regard the subject itself as one of great practical interest, and especially for the reason that doubt has been thrown upon this mode of alimentation. My experience in this way of nourishing patients in extreme cases has been both varied and extensive, for I long since became satisfied that it was a most valuable resource in cases of necessity.

To the excellent discussion of the subject I desire to make one practical suggestion, and that is, that whatever substance may be selected, *inject it into the rectum slowly*. The rectum appears to be something like the bladder and other hollow viscera; it does not tolerate *sudden distention*. I have always made it

a point to give specific directions on this point: *use tepid fluid and inject slowly*.

With caution on this point, it is astonishing how the rectum may be made to tolerate nutritive substances in liquid form. I have often used beef-juice, similar to that suggested by Dr. Peaslee, but more frequently milk mingled with beef-blood, expressed out of raw meat, and strained to remove solid particles and fatty matter. When using stimulants by the rectum, I usually add cream to the milk. Alcoholics in small quantities are readily tolerated in such a vehicle; and even mur. tinct. iron may be administered in liberal doses for a length of time, if the bowel is soothed and shielded by cream. I have seen marked effects from the use of iron in this way alone. I am inclined to think that rectal medication, as well as rectal alimentation, has not received the attention from the profession which it deserves. In a large class of chronic diseases, especially chronic diseases associated with general anæmia, in which the stomach, for some reason, does not tolerate iron (and there are many such cases), it may be used with manifest advantage and for a long time in the mode I have suggested.

S. G. ARMOR, M.D.

BROOKLYN, N. Y., January 21, 1878.

## STAINING FLUIDS FOR MICROSCOPIC WORK.

By M. N. MILLER, M.D.,

DEMONSTRATOR OF PRACTICAL PHYSIOLOGY, UNIVERSITY MEDICAL COLLEGE, N. Y.

INQUIRY is so frequently made regarding the staining processes employed in the Histological Laboratory of the N. Y. University, that I am induced to communicate the following as among the most valuable. The necessary materials are within the reach of every student, and no delicate weights or measures are needed.

I. BORAX CARMINE.—The original process given by Theirsch for the preparation of this most valuable agent is complicated and troublesome. The method, which originated with Prof. J. W. S. Arnold, of this college, gives excellent results, and is simple in the extreme. A saturated solution of ordinary borax in water is first prepared. It is best to nearly fill, say, a pint wide-mouth bottle with water, adding the borax, in coarse powder, to excess—allowing some of the crystals to remain undissolved. If good "No. 40" carmine be now added to the solution, it is immediately dissolved, and a beautiful scarlet fluid results. Continue the addition of the carmine until, after frequent agitation, it no longer dissolves, and a small portion remains at the bottom of the bottle mingled with the crystals of borax. After standing for twenty-four hours the clear supernatant fluid can be decanted. To this clear portion add about  $\frac{1}{3}$  ij. of alcohol and  $\frac{1}{3}$  i. of the U. S. P. solution of caustic soda, and it is ready for use. The method employed by Professor Arnold, which is in use in this laboratory, is to omit the alcohol, and evaporate the liquid to dryness, powdering the red amorphous mass thus obtained. This powder will keep for years, and when a staining fluid is required, it is only necessary to place from ten to fifteen grains in an ounce of water, to which about  $\frac{1}{3}$  i. of alcohol is added.

This compound will stain tissues that have been hardened in bichromate or alcohol, and is almost invaluable in pathological study.

II. HÆMATOXYLIN.—The expensiveness of this substance has led to several processes for using the log-

wood chips or extract. I have devised the following, which for results leaves nothing to be desired, and I believe it possesses merit in the simplicity of preparation, at least.

Take a pint bottle, as in the former process, fill with water, and add about an ounce of common extract of logwood, in coarse powder. Allow this to remain in a warm place for twenty-four hours, with occasional stirring. After the expiration of this time add powdered commercial alum until the liquid changes from the muddy brown color given by the logwood to a brilliant purple. The alum must be added until no change is produced. An excess of the salt will do no harm. Add about  $\frac{1}{3}$  ij. of alcohol, and, after decanting or filtering, it is ready for use. We usually omit the alcohol at this stage, and evaporate to dryness, as in the borax-carminé process. The powder thus obtained is added to water when required. Three grains to the ounce of water will give a fluid which will stain alcohol-hardened tissues in from ten to fifteen minutes. A solution containing ten grains to the ounce will stain very quickly. If it is desired to keep the solution, add  $\frac{1}{3}$  i. of alcohol to each ounce.

**III. Picro-CARMINÉ.**—Ranvier gives an exceedingly troublesome process for obtaining this complex substance, and it has frequently failed with myself, as it is difficult to ascertain when the solution becomes neutral. I have never had any but successful results with my process, which consists merely in adding one part of a saturated solution of picric acid to two parts of the fifteen-grain borax-carminé solution. I believe this mixture will keep indefinitely, although I have never kept it longer than six months. I now have a sample that was made early in the past summer, and it is still perfectly good. A section of skin is one of the most beautiful objects prepared with the picro-carminé, as the epithelium of the glands and the muscles are stained yellow, while the nuclei of the cells and the connective tissue acquire the carminé color. It is not, however, well adapted to tissues hardened in chromic acid.

Sections, after having been stained in the borax carminé, should be washed in alcohol to remove the superfluous coloring fluid, transferred for a few moments to a saturated solution of oxalic acid in alcohol, to fix the color. The oxalic acid is then washed out in alcohol, when the sections are cleared up in oil of cloves, and mounted in balsam or dammar. If it is desired to mount in glycerine—which, by the way, meets with very little favor here as a universal medium—the oxalic acid can be washed out with water, instead of alcohol.

Hematoxylin stainings are soaked in water for a few moments—to wash out the alum—transferred to alcohol, clarified in the clove oil, and mounted in Canada balsam or dammar varnish. Especial care must be taken that the vessels employed be clean, and that no acid comes in contact with the sections. If the fluid becomes muddy, or a scum forms upon the surface, it is only necessary to filter.

Sections must remain in the picro-carminé generally for about twenty-four hours. They are then washed quickly first in water and then in alcohol, after which transfer to the oil of cloves. The sections having been transferred to the slide, and the superfluous oil removed, the balsam or dammar (preferably the latter) is added, and the cover applied.

I have not directed the use of distilled water in making the solutions, as it is not essential. With us the "croton" answers every purpose, as the solutions are all either filtered or decanted.

## TREATMENT OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Dr. W. B. Rodman, of Frankfort, Kentucky, paid me the compliment of referring to my article of January 12th on the Treatment of Diphtheria, in his of January 26th. It is very evident, however, that he had not paid it the compliment of reading it. Had he done so he could not have confounded or associated as he did the method of treatment which it advocates with that presented in another article in another journal to which he also refers. These methods not only differ throughout in details, which are far from trivial, but are diametrically opposed in respect to several points of primary importance. "Let every tub stand on its own bottom." In attempting to combine the contents of the two in question the doctor is decidedly mixing incompatibles. But for the fact that the *embarras de richesse* of modern medical literature compels the busy practitioner to pass over many articles with only a hasty glance, I should not have thought it worth while to encroach upon your space, or my own time to call attention to the doctor's error. The statements in both articles concerned are explicit enough.

The doctor's assumption that no method of treatment which includes the employment of old and familiar drugs can possess any just claim to originality, I shall not now discuss, having already referred to it in the article of Jan. 12th.

Very respectfully,

C. E. BILLINGTON, M.D.

157 LEXINGTON AVENUE.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Jan. 20, 1877, to Jan. 26, 1878.*

BARNETT, R., 1st Lieut. and Asst. Surgeon. Relieved from temporary duty in the Medical Director's office, and assigned to temporary duty at Little Rock Barracks, Ark., during absence of Asst. Surgeon Bentley. S. O. 10, Dept. of the Gulf, Jan. 18, 1878.

SPENCER, WM. G., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Townsend, W. T. S. O. 4, Dept. of the Columbia, Jan. 7, 1878.

## Medical Items and News.

**CONTAGIOUS DISEASES.—WEEKLY STATEMENT.**—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 26, 1878.

| Week Ending           | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro spinal Meningitis. | Measles. | Diphtheria. | Small pox. |
|-----------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Jan. 19, 1878 . . . . | 0             | 10             | 82             | 3                          | 78       | 84          | 0          |
| Jan. 26, 1878 . . . . | 4             | 6              | 88             | 1                          | 114      | 94          | 0          |

**ST. LUKE'S HOSPITAL.**—Dr. Charles W. Packard has been appointed Consulting Physician to St. Luke's Hospital, in which institution he has just completed his term of ten years' service.



RESOLUTIONS ACCOMPANYING REPORT OF THE COMMITTEE ON ETHICS TO THE COMITIA MINORA OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK:

*Resolved:* That for a physician to permit the use of his name, or professional reputation, in commendation of any drug, medicine, wine, mineral water, nostrum, proprietary article, or medical preparation, or of any surgical instrument or appliance whatsoever, for the purpose of advancing the pecuniary interests of any inventor, patentee, originator, discoverer, manufacturer, proprietor, or advertiser of such article or appliance, is an unworthy act.

Also, that for a physician to publish, or allow to be published in the journals, public prints, or other publications intended for the use of the laity, reports of medical or surgical cases, or papers on medical or surgical subjects, for the purpose of attracting the attention of the general public to the author, is repugnant to the high sense of honor that should govern the medical profession.

These are the devices commonly resorted to by quacks and impostors, and have for their end the attainment of fame and notoriety by other means than those efforts in the line of professional duty which are the honorable physician's only legitimate paths to advancement in the confidence and patronage of the public.

In view of the foregoing resolutions, whereas, it has come to the notice of this Committee that certain waters—known as Apollinaris and Hunyadi Janos—also certain wines and other medical articles, are extensively advertised in the public journals and by handbills throughout the country;

And, whereas, the names of certain members of this Society appear in connection with medical certificates in said advertisements;

And, whereas, such action is in plain violation of the letter and spirit of the Code of Ethics as well as of the foregoing resolution of this Committee:

Therefore,

*Resolved,* That the gentlemen whose names appear on said certificates be requested to withdraw or cause the withdrawal of their names and certificates from said advertisements.

Also, it is requested that due notification of the action taken by said gentlemen, individually or collectively, in this matter, be transmitted to the Committee on Ethics, that the Committee may be able to report on the same at the next meeting of the Society.

R. A. BARRY,

*Chairman Committee on Ethics.*

R. J. O'SULLIVAN,

*Secretary.*

NEW YORK PATHOLOGICAL SOCIETY.—The following officers have been elected for the ensuing year: President, Dr. John C. Peters; Vice-President, Dr. E. C. Seguin; Secretary, Dr. Geo. F. Shrady; Treasurer, Dr. John H. Hinton.

INSPECTION OF PROVISIONS AT BERLIN.—A Petition for the Establishment of a Bureau for the Inspection of Provisions, etc., in Berlin, was recently presented by the Landlords' Club of Berlin to the authorities of that city. The articles mentioned in the petition as especially requiring inspection are water, beer, wine, coffee, tea, chocolate, sugar, spices, meal, bread, meats, butter and other fats and preserves. The bureau should have power to examine these and other articles of food and drink, for impurities and adulterations, and to see that no articles are exposed for sale in a condition prejudicial

to health. It is also proposed that the bureau should be invested with a general supervision of prices, and the power to regulate them if necessary for the interest of the public. It may be of interest to our readers to know that in the year 1875 the consumption of milk per capita in Berlin was about 40 quarts; of wine, about 11 quarts; and of beer, about 157 quarts.

CHOLERA IN JAPAN.—According to recent advices from Japan, the epidemic of cholera which broke out not long ago in the city of Yokohama has spread widely over the country, and especially along the coast. The disease is said to be particularly virulent among the troops who have returned from Satsuma and are now in Hiogo. Opinions are divided as to the origin of the disease. Some believe that it was transported from Shanghai, and others that it originated among the troops in Satsuma. The epidemic in its spread has followed the lines of trade and commerce, especially along the coast. According to the official reports, there had been up to the 5th of October, 575 cases of cholera in Yokohama and its suburbs; of these, 233 proved fatal. In Tokio, up to October 8th, there had been 204 cases and 97 deaths. The German colony in Yokohama, and the crews of two men-of-war in the harbor, had not suffered from the epidemic up to the latest advices.

DR. GIRSZTOWT, Professor of Surgery, and editor of the medical journal (*Gazeta Lekarska*) in Warsaw, died recently of the results of an injury. A compositor, who had been discharged from the printing-house, entered the editor's room on the 5th of November and stabbed him beneath the left Poupart's ligament with a case knife. Both the femoral artery and the crural nerve were divided by the blow. The wounded man compressed the artery himself until assistance arrived, when it was immediately secured by ligature. The loss of blood, however, was considerable, and eventually led to the fatal termination. Dr. Girsztowt was one of the most esteemed and successful physicians in Warsaw.

THE LATE DR. HANDSEL GRIFFITHS.—*The British Medical Journal* informs us that the death of Dr. Griffiths has left his family in great need, and that some of his professional friends are endeavoring to raise a benefit fund so as to enable his widow to furnish a house and make a struggle for the maintenance of herself and her little ones. This is, after all, the old story, and shows how first-class talent is sometimes rewarded. Plenty of reputation, but penniless heirs. A drygoods man with half the opportunity and a quarter of the brains would have made a fortune.

PRUSSIAN SURGEONS IN ROUMANIA.—We learn with pleasure that the item with this heading, published a few weeks ago in the *RECORD*, is incorrect. It is true that the Prussian surgeons who went to Roumania at the request of the Princess of Wied, were at first coolly received, but the coolness was experienced at the hands of the Roumanian ladies, who were acting as nurses in the hospitals of Bucharest, and not at the hands of the Roumanian surgeons. The ladies acted under the influence of a strong prejudice against the German nation, which, however, was soon replaced by hearty esteem and admiration for the devotedness and skill of their Prussian visitors. The French Inspector-General, of whom mention was made, has control only of the field-hospitals south of the Danube, and has not come in contact with the Prussians at all. All the hospitals on this side of the river are under the control of three Roumanian physicians, who were educated

in German universities, and who cherish the heartiest admiration for their German teachers. Only one of the Prussian surgeons has returned home. All the rest are still engaged in various hospitals, and the value of their services is cheerfully admitted by all the Roumanian surgeons who are cognizant of their work. The Prussians are themselves well satisfied with their position. Their pay is higher than that of their Roumanian co laborers.

**PULSATILLA** appears to have been an ancient remedy, recommended by Dioscorides and Pliny, and used by the earlier Arabian physicians; its revival was principally due to the labors of Baron Stoeck. The Baron's mode of administration was peculiar, for he had it rubbed up with sugar-of milk, just as Hahnemann subsequently directed. Stoeck gave the first great impetus to its use in 1771, since which time all German physicians have used it, while Hahnemann only commenced to appropriate it in 1812. It is a singular fact that the latter used or recommended it in few or no diseases against which it had not been previously employed in rational and efficient doses.—*J. C. Peters, M.D., Boston Medical and Surgical Journal.*

**VALENTINE'S MEAT-JUICE.**—Prof. J. Foster, of Munich, has examined this preparation and published the result in the *Pharmac. Post.* and *Hager's Pharmac. Centralhalle*. The sediment consists chiefly of magnesium phosphate; the liquid has a slightly acid reaction, and contains water 59.16 per cent., solid substances 40.84 per cent. The latter consists of ashes 13.85 per cent., and substances destructible by heat 26.96 per cent. The ash is approximately the same as that of beef-tea. The destructible substances are albumen, 0.73 per cent., nitrogen 3.45 per cent., substances insoluble in strong alcohol, 20.50 per cent.

This preparation would probably not be found very nutritious. It differs from Liebig's Extract of Meat only in its larger proportion of water, and in its traces of albumen. The absence of fat, which is put forth as one of its claims to notice, might in many cases prove a disadvantage rather than an advantage.

**NEW YORK ACADEMY OF MEDICINE.**—At a stated meeting of the Obstetric Section, held Jan. 21, 1878, Dr. Salvatore Caro was elected President, and Dr. Henry E. Crampton, Secretary.

**CONSUMPTION OF ALCOHOLIC DRINKS IN FRANCE.**—The following facts were taken from a paper recently read by M. Lunier before the *Académie de Médecine*.

The alcoholic drinks consumed in France are wine, cider, beer, brandy, and liqueurs. Wine is the true national drink: during the last ten years the annual consumption has been 1,325,000,000 gallons, being 126 gallons per head. There have been oscillations in the consumption corresponding to those in the production, but in general the former has increased progressively during the last fifty years. From 1829 to 1833 the consumption was only from 58 to 63 gallons per head. Wine is really the universal drink only in 72 of the departments, and in these the quantity used varies from 40 to 380 gallons per head.

The consumption of cider has diminished during the last twenty years. This does not, however, constitute a cause for regret, since, in consequence of the bad quality of the cider, brandy is very generally added to it as a corrective. It constitutes the current drink in nine departments, situated on the north-west frontier. The annual consumption in these departments is 79 gallons, and in France generally 21 gallons per head.

The consumption of beer has increased progressively without interruption during the last fifty years. In

1829 it was only 84 gallons, and now it is 23 gallons per head. Beer constitutes the general drink in only four departments, which are grouped along the Belgian frontier. The average individual consumption there is from 79 to 231 gallons. Complaints of the bad quality of the beer have been rife of late, and it is not improbable that it will soon become customary to add gin to it as a corrective.

The consumption of strong alcoholic drinks has increased progressively during the last forty years; in 1839 it was two gallons, and now it is three gallons per head. Alcohol is consumed most largely in the departments in which wine is not made, very little being consumed in the latter. Statistics confirm the opinion enunciated by M. Bergeron in 1870, that the noxious action of manufactured liquors is far more intense than that of brandy made from wine. The following conclusions may be deduced from the statistics collected by M. Lunier:

1. Of the accidental deaths due to excessive drinking, the great majority occur in the departments in which large quantities of alcohol are consumed. Conversely they are rare in the wine-drinking departments.

2. The cases of prosecution for drunkenness are five times more numerous in the departments which consume chiefly alcohol than in those which consume wine.

3. The same may be said with regard to the cases of insanity due to alcoholism; the number stands almost everywhere in a direct ratio to the consumption of liquors, and especially of manufactured liquors. Vendée and the Charente-Inférieure form almost the only exceptions to this rule. In those departments white wines form the principal drink, and they are almost as dangerous as brandy in this respect.

**ARE THERE LAWS OF THERAPEUTICS?**—Under the above title, Dr. Rabagliati contributes a paper to the *Practitioner*, September and November, 1877, in which he sets forth the following propositions, that he believes to be capable of substantiation?

"Prop. A.—Different remedies tend to act upon different parts of the human economy.

"Prop. B.—The effects of remedies are proportionate to the quantities in action, and universally as the resistance of the persons acted upon." In commenting upon this proposition, he draws attention to the fact that "quantities in action" and quantities administered are not necessarily identical, as only a portion of the latter may be absorbed. He further states that he has himself seen salivation induced by the continuous administration of  $\frac{1}{100}$  of a grain of bichloride of mercury three times a day, when no such result has followed doses of  $\frac{1}{10}$  of a grain to a much larger gross amount.

"Prop. C.—All remedies whatever which act on the economy exert upon it at least a two-fold and contrary action in time. If these be called action and reaction, or primary and secondary, one may otherwise state this proposition in the following form: the secondary action of any and all acting remedies is contrary to the primary.

"Prop. D.—Different quantities of different but similarly acting remedies are required to produce given effects upon bodies of equal resistance.

"Prop. E.—The time after which reaction succeeds action is different in the cases of differently constituted bodies." Although the above propositions may appear to be somewhat vaguely stated, a perusal of the paper in full will afford much food for thought.



## Original Communications.

### A CLINICAL ACCOUNT OF SOME CASES OF INTRA-LARYNGEAL GROWTHS.

By GEORGE M. LEFFERTS, M.D.,

CLINICAL PROFESSOR OF LARYNGOSCOPY AND DISEASES OF THE THROAT, COLLEGE OF PHYSICIANS AND SURGEONS; LARYNGOSCOPIC SURGEON TO ST. LUKE'S HOSPITAL, ETC.

I PRESENT the following cases as illustrations of a most interesting and I am sure, as far as results go, most important department of laryngeal pathology; likewise as examples of what may be effected in treatment by the natural passages and through the aid of the laryngoscope. I desire still further to call attention, purely for scientific reasons, to the fact that in the majority of the cases, I am not sure but in all, no laryngoscopic examination had been made previously to mine, though all of them had been under professional care, and the symptoms were such, as the reader may judge, as to certainly direct attention to the larynx as the seat of the malady. This being the case, I may be pardoned if I ask the careful consideration of those who apparently do not as yet appreciate the value of the laryngoscope as a diagnostic means, simply I believe because a lack of familiarity with its use has not *demonstrated* to them its worth, to the fact that its use is not very difficult to acquire with some practice, and to assure them that the importance and interest of the *practical* results which it affords—to say nothing of the satisfaction which one must feel at having added to his diagnostic and therapeutic resources an aid which he will in certain instances find not only very valuable, but often indispensable, will most richly repay for any time and labor expended in acquiring the necessary amount of technical skill.

I would, moreover, refer them to the *results* of experience in the practical use of the instrument as embodied in the literature of the day, and request that it be contrasted with such statements as the following—statements made with an honest and thorough conviction as to their truth—by no mean authorities *in their time*.

In speaking of laryngeal growths, one says, "From the infrequency of their occurrence, and the undistinguishing character of the symptoms they give rise to, they generally remain undetected till after death;"\* and another, "Perhaps there is no class of diseases involved in greater obscurity or presenting greater difficulty to the practitioner than those affecting the larynx and trachea . . . and, by reason of the difficulty of the subject, it will be long before the same accuracy of information, with reference to the affections of the windpipe, can be attained that is possessed in other diseases."†

Comment is hardly necessary. Is not the fact to-day proven to every unprejudiced mind that our ideas concerning the pathology, physiology, and therapeutics of this very important organ have undergone a wonderful revolution in a comparatively few years. Do we not now possess the "accuracy of information," or at least the means of acquiring it, for the larynx is no longer a *terra incognita*; light has literally been thrown upon it and upon its morbid conditions by the laryngoscope, and their diagnosis rendered accurate, their

treatment in the great majority of instances safe and effectual.

CASE I.—March 3, 1875, I was consulted by Mrs. T. in relation to a complete aphonia from which she had suffered for some six months. I was informed that during the previous July she had noticed a slight hoarseness, which was attributed to exposure, and supposed would soon pass away without treatment, especially as her voice had always been previously perfect; but the condition persisting throughout August and September, various treatments, internal and external, were pursued without any alleviation of the progressive hoarseness. The laryngoscope was not used.

In October the voice was totally lost, and the respiration affected. This interference with respiration does not seem to have been very marked, consisting alone in a certain sense of oppression and some shortness of breath after exertion, without being progressive. In addition, she has suffered from numerous attacks of laryngeal spasm, always occurring in the night, and being of varying degrees of intensity. Conversation is carried on in a feeble, strained whisper, barely audible at a short distance, which causes marked fatigue if protracted beyond a few moments, associated with a dull pain over the larynx and chest. Her general condition is good, and she tells me that her health has not been in the slightest degree affected by the above-described conditions; indeed, she weighs more now than she did some six months since.

The objective examination gives the following results: the respiratory murmur is everywhere good over both lungs, its pitch alone being modified by the stridulous sound transmitted into the bronchiæ from the larynx. The laryngoscope shows that the whole anterior commissure of the larynx is filled up by a large, smooth, ovoid growth, fibro-cellular or fibroid in its nature. It is tolerably well pictured in the



drawing. It extends backwards until it occupies about one-half of the antero-posterior diameter of the laryngeal cavity, and terminates in two large rounded points. It has its points of attachment in the commissure and upon the superior surface of the left vocal cord anteriorly. As is seen, it occupies very completely the greater part of the glottic opening, and most effectually prevents the process of phonation by holding the vocal cords apart.

On March 8th an attempt was made to remove the neoplasm with a Mackenzie's laryngeal forceps, which failed mainly because the forceps were too large, and could not be introduced into the laryngeal cavity without causing spasmodic approximation of its walls. Two days later the operation was again undertaken with a Türk's tube forceps, which proved to be much more applicable. Three days were necessary to effect an extirpation of the neoplasm, the sitting never being prolonged beyond ten to fifteen minutes on each day, and the forceps being introduced but twice. On the second day the patient found that with some effort she was able to pronounce certain

\* Ryland: A Treatise on the Diseases and Injuries of the Larynx and Trachea.

† Porter: Observations on the Surgical Pathology of the Larynx and Trachea.

words with tolerable effect, and that two days later she could  *speak*. The laryngoscope showed at this time that the glottic opening was freed from the presence of the growth, and that the vocal cords could and did meet at the median line. Some small portions of the neoplasm still remained upon the superior surface of the left cord, near the commissure, and these were removed at the fourth and last—as far as operative interference went—sitting. From this time on there was gradual but steady improvement in the patient's voice, the want of clearness at first depending upon the tumefaction and congestion of the cord consequent upon the operative measures taken, and later upon a condition of apparent atony due to the prolonged complete disuse of the laryngeal abductor and adductor muscles especially. This latter condition was bettered by the use of electricity and vocal exercise, while time relieved the first; and on March 23d the patient was discharged with a full, clear, and loud voice.

CASE II.—In September, 1876, I saw an exceedingly beautiful illustration of the size and extent that a laryngeal papillomatous tumor may attain in the person of M. H., aged 28. The symptoms that its



presence caused were mainly an aphonia, which was absolute and which had persisted for many months, and dyspnoea, which of late had become excessive and dangerous, preventing all exertion and even rest at night. Of such a grade was it, that I hesitated whether or no it was not proper to perform a tracheotomy at once, before attempts were made to remove the intra-laryngeal tumor by the natural passages. Had I yielded to the fears that the patient's condition suggested, I should have done so; but experience having taught me that a surprising degree of toleration is established by nature in laryngeal stenosis of a chronic progress, and that we not unfrequently see patients living on such a diminished supply of air obtained with difficulty through a glottic opening so small that, were the same degree of stenosis to occur quickly—were the exclusion of the same amount of air unprepared for and sudden—it would in many instances, I am sure, be insufficient to insure the maintenance of life. I therefore waited, and determined to attempt at least the removal of the growth through the mouth. A small portion of it only, if it were taken from that part which overhung the glottis, and which was drawn into the latter with every inspiration, would suffice to improve matters materially. The result justified this view. Without going into tedious details (I have, in some of the other cases which are embodied in this recital of clinical histories, given in detail various operative steps), suffice it to say that, at the first operation, the greater part of the papillomatous growth was removed without difficulty; its size, extent, and location rendering the operation with a large Mackenzie's laryngeal forceps an easy one. Indeed, it would have been difficult, the forceps once in the larynx, not to have seized at the first sitting large portions of the neoplasm. Laryngeal spasm, which I expected

and feared, for reasons readily appreciable did not occur. The result of the removal of such a large portion of the mass, which was blocking up the glottis, was, as might be expected, most satisfactory and comforting to the afflicted patient. "For the first time in months he could breathe easily."

At a second sitting a few days later, remaining portions of the neoplasm, situated mainly upon the left vocal cord and on the inner surface of the left arytenoid cartilage, were removed. This was followed by marked improvement in the voice. A third sitting was devoted to the removal with a small forceps of a remnant of the growth located on the laryngeal face of the left arytenoid. Succeeding in this, and noting that one or two small remaining portions of growth (not larger than a pin's head) at other points were undergoing or had undergone an atrophy after their thorough crushing, further operative interference was not needed. I saw the patient some months subsequently with a clear larynx, free and uninterrupted respiration, and a fairly good voice.

CASE III.—The patient, a robust country girl, aged 16, was referred to me for treatment by her physician, in the western part of this State. Her history was as follows: for eleven years she has had trouble with her voice and throat. This has manifested itself by persistent and progressive aphonia, and the ordinary subjective symptoms of a chronic inflammatory process in the pharynx and larynx. She dates the inception of her aphonic symptoms from a severe cold which occurred, according to her mother's statement, when she was five years of age. Her voice had previously been excellent and perfectly normal. Associated with the aphonia, which at this time was of a slight grade, was more or less dyspnoea, occurring chiefly during the night. This latter symptom was the first one to attract the parents' attention, and was naturally considered to be croupous. The symptoms described became very slowly, but still perceptibly and increasingly worse, until within some six years ago, at which time further and more serious manifestations of interference with the respiratory current within the laryngeal cavity developed. The most marked of these, and the one which excited the most alarm, was the frequent occurrence of severe laryngeal spasm, usually at night, and always after any extraordinary physical exertion. Phonation now became a painful and labored process; the voice, at its best, was rough and coarse, but a very few moments sufficed to render even this totally inaudible, and if the effort were persisted in, violent and continued cough at once supervened. Her condition demanding relief, medical aid was sought for the first time. The diagnosis of "tumor in the wind-pipe" was, according to her statement, arrived at, and medicines administered which had the effect of relieving somewhat the dyspnoea, more or less paroxysmal in its intensity, from which the patient suffered. No examination of the larynx was made. From this date up to the time of my laryngoscopic inspection no new symptoms, but a gradual aggravation of the old, are to be recorded. Dyspnoea and aphonia became steadily worse; active exertion became impossible; violent and harassing cough, during which small pieces of a "fleshy" character and consistency were thrown out of the throat, occurred at intervals. In June last the voice, which, as I have stated, was at times intelligible at some little distance, became totally lost; and four months later—October—the dyspnoea forced her to seek diagnostic and operative aid in this city.

My subjective examination revealed nothing to be added to what I have recorded. The character of her respiration would, perhaps, have attracted the most



immediate attention, demonstrating as it did conclusively, that a most serious impediment somewhere existed in the air-passages to the respiratory current. It was labored; if forced, became slightly stridulous, and was rendered more difficult by exertion or prolonged efforts at conversation. The voice was almost inaudible, and it was only by a *straining* effort at phonation that she could make herself understood, and even then the distance between herself and her hearer needs be short.

The laryngoscope showed at once the cause of these phenomena—the larynx was more than one-half filled by growths whose gross characteristics at once demonstrated their nature: the villous, velvety appearance of the mucous membrane in the neighborhood of the glottic opening; the aggregations, branches, and cauliflower-like appearance of the tumors at once proclaimed them to be papillomatous in their structure. A reference to the drawing will show that they occu-



pied nearly the whole extent of both vocal cords; that on the left side of the larynx they extended well upwards upon the false vocal cord posteriorly, and encroached thence backwards over the inner face of the left arytenoid cartilage. The anterior commissure of the cords was so fully occupied by the neoplasm that its opening was entirely occluded or filled up, and the deepest inspiration possible failed to draw the vocal cords sufficiently apart to afford a clear space. More than one-half of the rima glottidis is, therefore, rendered absolutely obstructive to the respiratory current. Its opening posteriorly is likewise encroached upon, but not to the same degree, the irregular nodulated pointed projections simply reaching inwards into its free space—interdigitating, as it were.

The act of phonation—adduction of the vocal cords—crowds these growths together and closes the glottis; the vocal cords remaining at, or but a short distance from, the sides of the larynx. The column of air from the trachea then forces itself upwards through the numerous small fissures and openings which remain between the irregular edges of the growths, but no sound, resembling in any degree a natural one, is produced. Respiration is conducted through the opening which exists posteriorly, and the current of air, in its passage, causes a slight vibratory movement of the apices of the inter-lying growths.

Operative measures were undertaken at once to relieve this condition of affairs, and the throat being capacious and unusually tolerant, no difficulty whatever was experienced in passing Türk's tube forceps, guided by the reflection in the laryngeal mirror, into the cavity of the larynx, and upon such portions of the growth as it was desired to remove at each sitting. A few of the latter—without being prolonged beyond the patient's endurance, or causing too marked an inflammatory reaction—sufficed to clear the vocal cords and overlying parts most completely of all vestiges, root and branch, of the neoplasm.

I might now reasonably expect, judging from the results in other cases, to have the satisfaction of hearing an improvement at least in the patient's phonetic powers, but I was disappointed. To my surprise no such result followed immediately, nor did the im-

provement manifest itself for several days. The laryngoscope showed me that the cords were clear of the neoplasm, but that they were of a red color, swollen, with rounded edges, and that all proper muscular action in adduction, and their vibratory properties were in abeyance. This condition of affairs was the explanation of the still persistent aphonia.

Inflammatory reaction after my instrumental proceedings was to be looked for; it existed, and to an unusual degree—hence the hyperæmia, the swelling. The long practical disuse of the vocal cords, it is fair to infer, may have given rise to a partial atrophy at least of the laryngeal muscles. These two causes were all-sufficient to prevent an immediate return of voice; and that they were the causes is proved by the fact that under the use of daily applications of an astringent spray into the larynx, the employment of electricity, and systematic vocal exercise, as in the first case that I have detailed, there was constant improvement. The case remained under observation, and with gradually lessened treatment for some three weeks after the operation, the voice continuously developing in quality and force, and was finally discharged from treatment, and allowed to return home, if not with a perfectly melodious and well-toned voice, at least with one which, if a little rough and coarse, answered perfectly all practical requirements, and with one, of which the constant improvement allowed of a favorable prognosis being given.

[A letter recently received (November) leads me to believe that there has been a reproduction in part of the papillomatous growths.]

CASE IV.—Jennie B., aged thirty, on an exceedingly inclement night some three years ago was exposed for a long time to the cold and wet, while crossing the river in a ferry-boat. The consequence was a severe cold, with all the symptoms of an acute laryngitis, including absolute aphonia. The condition, after lasting a day or two, subsided, but only to be renewed upon fresh exposure, so that the entire winter passed before the patient was able to consider herself free from her "cold." The state of her voice, then, for the first time attracted her attention; from being clear and full as formerly, it was now constantly hoarse; and at times, for a few moments, would fail her entirely. For the past eight months



the hoarseness has grown slowly worse, and she is now conscious of making considerable muscular effort in order to produce clear sounds from the vocal cords. If this effort be prolonged the voice will be entirely lost for a variable period of time. During phonation she often feels "as if something came in the throat, and stopped the voice;" that is to say, there is a sudden catch in the voice—a sensation of a foreign body in the larynx—followed by tickling, paroxysmal cough, and efforts at clearing the throat.

The laryngoscope shows that there is a more or less ovoid-shaped neoplasm seated upon and partly incorporated with the left vocal cord. It is soft and of a bright red color; in short, presents the general charac-

teristics of a fibro-cellular growth. The only point of special interest in connection with it is, that during phonation it is crowded up between the vocal cords until a considerable portion of it lies upon either one or the other cord; hence, probably, the sensations of which our patient complains. Its removal by means of Türk's laryngeal forceps was at once undertaken, and all that portion of it which was crowded up between and upon the vocal cords during phonation was easily removed. The remainder, lying immediately below the free edge of the left cord, owing to its location, which caused it to be covered and hidden from view, as soon as the cords were spasmodically approximated, a result which followed each introduction of the instrument into the larynx, could not be reached, and after a number of trials the attempts were discontinued. A silver probe, coated with silver nitrate upon the appropriate side, to correspond with the location of the growth in the larynx, was now taken, passed during deep inspiration directly into the patient's widely opened glottis, and then pressed strongly upon the remains of the neoplasm; contact being kept up long enough to thoroughly destroy all portions of the growth. The probe was then removed, and the larynx immediately painted with a solution of sodium chloride. The reaction following this procedure was most decided and unpleasant. Acute laryngitis, tumefaction of the vocal cord and aphonia, was the result, but subsided within a few days. An examination made a week subsequently showed that all vestiges of the growth had been destroyed, and that the vocal cord had resumed its normal appearance. The voice, which after the first operation had been much improved, was now so much bettered that the patient herself pronounced it "as good as it had ever been." As a matter of fact, it was clear, strong, and resonant, and I had every reason to be satisfied with the result.

The following two cases represent a class of laryngeal growth which is certainly rare; at least my experience and the meagre, or absence of any, account of them in standard works upon laryngoscopy, would lead me to believe so. Türk alone makes mention of them, and to his excellent work I am indebted for what information I possess upon the subject. They have their origin in a localized chronic inflammation of the submucous connective tissue and the mucous membrane of the vocal cords; a result of which is the formation of a polypoid tumor or tumors of varying size, but usually very small, made up mainly of plastic matter. Whether or no these tumors ever consist of the products of an old inflammatory process having its seat in a mucous follicle, is as yet a disputed point. Upon their size—and, as has already been said, they may be multiple or single—depends, according to Türk, their designation; the smaller, round, opaque, white and numerous, the size of a hemp seed, constituting an affection or appearance which has been termed by him "*chorditis tuberosa*," while the larger, usually a single tumor, of more or less fusiform shape, apparently intimately incorporated with the surrounding tissues and of a whitish-opaque or even a dirty-reddish color, has been classed as the "*polypoid form*," of a chronic and localized inflammatory process affecting the vocal cords. This latter locality is always the seat of either variety, their edges and superior surface forming the favorite points for the localization of the inflammatory products. Four cases of the first form, all occurring on the persons of female singers, and four of the second, have been observed and some of them fully reported by Türk. For the information of those interested I will add,

that histories and drawings, as well as the result of a microscopical examination of the neoplasm in one instance, are given in his classical work.

My cases are as follows:

CASE V.—Mrs. J. G., a professional singer (mezzo-soprano), came to me in February, 1876, for assistance in regard to her voice, which she stated was ruined ten years ago (she now being 25); she suffered from a severe attack of membranous croup, which passing away left an aphonia of some six weeks' duration. This in turn slowly disappeared, and the voice, subject to occasional relapses into huskiness, again became available for singing. A few months since, following severe exposure and cold, another attack of aphonia developed; this proved to be a most severe and persistent one, and a voice seriously impaired in purity and force was left upon its subsidence. Singing now became a painful process, attended by perceptible muscular effort, and leaving a tired and sore feeling in the larynx and pharynx after it. The change or veiling of tone was most perceptible in the middle register, and its transition into the upper, especially when the voice was forced. Such a condition being of course incompatible with steady professional work, the voice being entirely unreliable and "giving out," on slight provocation, singing was discontinued.

In addition the patient is suffering from some, and has suffered from many, symptoms of an ordinary catarrhal pharyngo-laryngitis.

Upon the left vocal cord, at the junction of the anterior and middle third, situated directly upon, or rather *in*, its free vibrating edge, is an ovoid, opaque, whitish tumor which blends into the surrounding parts, directly opposite to it, that is upon the right vocal cord, is a second similar tumor, but much smaller. Dur-



ing phonation the projections caused by these tumors touch as the cords come together, and before the latter are in apposition; a double glottis is thus formed, its parts being of unequal length, and consequently giving rise to unequal sound-waves, and double notes of a different pitch, result, a discordant voice which is furthermore rendered hoarse and unreliable by the relaxation and catarrhal congestion of the vocal cords themselves. It may be of interest to note at this point, for the information of my fellow specialists, that the experiments undertaken with this patient's larynx to prove the truth of the phenomena described by Schnitzler in his paper on "*Diphthonia*," failed.

The object of treatment in such a case as the above is to cause either a resorption or a destruction of the so-called growth, which will depend somewhat upon its location and size, but especially upon its *age*. In recent cases the former plan may be carried out successfully, while in those in which the tumor has existed for a long period it will undoubtedly fail, and a direct means must be taken to destroy the neoplasm by caustics or forceps if it be large enough and so situated as to be readily seized; although I believe that an opportunity to do this would be rarely afforded, owing to their usually thorough incorporation with neighboring parts. In my case the plastic deposit being of comparatively recent origin, its reabsorption was successfully accomplished by the persis-



tent pencilling of the larynx (twice weekly, with tolerable regularity for six months) with a solution of iodine and iodide of potash in glycerine. I say successfully, because at my last examination there was no remaining evidences of the plastic nodules or growths at the points above indicated, and the patient's voice had regained its strength and was regaining its purity. I believe she has since resumed her singing.

The second case occurred in the person of a professional friend. I give his history in his own words.

CASE VI.—“Some time during the latter part of March, 1876, I took a violent cold and was confined to my room for about one week; at the end of that time resumed my duties, but noticed a slight huskiness in the voice. By the middle of May following I found that after reading aloud or talking for a short time I became decidedly hoarse. An examination of the larynx, which was now made by Dr. L., showed that an extensive hyperæmia of the parts existed, and an astringent course of applications was advised, with rest of the throat. For three weeks treatment was continued more or less regularly; but at the end of that time, believing that the good results already accomplished would lead to permanent relief, my visits were discontinued until the 25th of July following. An examination made at this time, on account of the redevelopment and increase of my former symptoms, showed that the hyperæmia was no longer active, that a chronic laryngitis existed, and had as one of its results given rise to a localized hyperplasia (fibrinous plastic material); this had assumed the shape of a small nodule somewhat larger than a pin's head, located upon the inner border of the right vocal cord at its anterior third. Applications of a solution



of iodine and iodide of potash in glycerine were advised.

“My attendance being still irregular, it was not until the middle of the following October that, becoming alarmed at the steadily increasing hoarseness and difficulty in speaking, I determined to devote time and attention to the treatment of the affection.

“By New Year's Day, having been in regular attendance twice weekly since October 15th, I found my voice so much improved that it was nearly natural. Three applications weekly have been made to the larynx since January 1, and at this date, January 26th (1877), my voice is perfectly restored.”

Under the use of the medicament above mentioned, the so-called growth slowly but steadily decreased in size; in so-doing apparently acquiring a much greater density. At least the latter stages of the cure were much slower than the earlier, less impression being made upon the size of the nodule in a given time. At present a slight thickening of the cord at the site of its former locality, and a slight opacity, alone mark its early position.

There is one point in diagnosis which relates to both cases, and which had perhaps be better mentioned before I leave them: this is, that when the cases are first seen there may be some difficulty in detecting the presence of any localized hyperplasia such as I

have described above, simply because the general congestion of the parts, attended undoubtedly by more or less thickening and chronic œdema, is usually, I believe, amply sufficient to mark the small nodule or nodules which at this time do not present the same whitish-opaque appearance (due to a fatty degeneration of their interiors), that they do later in the disease, and it may only be after a treatment directed against the chronic catarrhal symptoms has succeeded in subduing to a degree both congestion and tumefaction, that the tumor will appear clearly enough for diagnostic purposes. This *differential treatment* will be less necessary, of course, when the tumor is situated directly upon the conspicuous free edge of a vocal cord, as in both of my cases.

The latter, the vocal cords, seem to be, if we judge from the description of the cases which have been published, the favorite site for neoplasms of this character, and I think that the explanation will be found in the fact that just at this point we have the greatest amount of laryngeal movement—of friction—of more or less continuous impingement. Under normal conditions this of course causes no irritation; but with vocal cords intensely hyperæmic, already more or less acutely inflamed, such irritation cannot but conduce to an increase of the inflammatory action, with consequent infiltration of plastic matter, the *edges* of the vocal cords being the parts which receive most directly the greatest amount of mechanical contact and pressure. Just here we should expect to find the hyperplastic infiltrations or nodules, and just here we do find them as a rule. Perhaps we may in this way explain also why singers, those who use the larynx continually, and often under unfavorable conditions, should constitute the majority in the recorded instances. Another curious proof of the apparent truth of this theory is afforded by my first case. Where directly opposite to and corresponding with the first and primary nodule upon the left vocal cord which projected beyond its free edge, and consequently struck on each effort at phonation a given point upon the opposite cord, was a second and smaller one upon the right, both vocal cords being at the time subject to the same grade of inflammatory action.

CASE VII.—On December 7, 1876, I examined the larynx of A. A., aged 23, a robust young man, free from all syphilitic or tubercular taint, who had suffered from an almost absolute aphonia for some three months. Six months since the voice became husky, and previous to that time he had been subject to the commoner symptoms of a chronic laryngitis. The aphonia has been gradually but steadily increasing



up to the time of my examination. Respiration is entirely unaffected, and there has been no laryngeal spasm. I found the anterior commissure of the larynx to be completely occupied by a large ovoid tumor, which extended backwards between the vocal cords to a point midway between their commissures. It was of a bright red color, smooth surface, and was attached by a broad base just below the cords anteriorly. Its appearance showed it to be fibro-cellular.

Its size and position render perfect apposition of the vocal cords impossible, as it presents a direct mechanical obstacle to the closure of the glottis, hence the aphonia. Our first sitting for operative purposes was on December 12th; 1, in the meantime, having demonstrated the case to my class at the College of Physicians and Surgeons, and at it I removed, by means of the laryngeal forceps, the greater part of the neoplasm. The result was most excellent, but not surprising, when the location of the growth is considered. Voice immediately returned, loud and full. The same night there was some soreness of the larynx, and change for the worse in the voice. The next day, however, the latter again improved and continued to do so up to the second operation, on the 15th, when I removed the remaining portions of the growth, consisting mainly of its base. One week later the patient was again brought before the class at the College, and apparently took special delight in exhibiting, at my request, the power of his voice, by filling the large amphitheatre with joyful shouts. Evidently there had been complete and full restoration.

CASE VIII.—P. L., aged 38, was seen by me May 3, 1877, on account of an aphonia from which he had suffered for several months, and which he believed to be progressive. No other symptoms of laryngeal disease of any import. An examination of the larynx demonstrated the presence of a large papillomatous outgrowth upon the right vocal cord, springing mainly from its free edge in its anterior third, and partly from its superior surface. The tumor lies almost di-



rectly in the glottic opening, and consequently prevents a closure of the cords during phonation. Upon the left vocal cord at a corresponding point to the above, there is a slight irregularity of surface, hardly a hypertrophy which may indicate the future development there of a like growth.

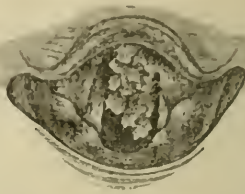
At the first sitting all morbid tissue was thoroughly removed by means of Türk's laryngeal forceps, with resulting *immediate* improvement in the voice. One week later this was confirmed.

CASE IX.—Miss M., æt. 16, was referred to me for treatment in September of this year. She is *absolutely aphonic*, and has been so for the past six months. Seventeen months since her voice began to fail, and has been growing progressively worse since that time. Previously it had always been good, though she has been subject to numerous attacks of sore throat (pharyngitis or tonsillitis). Twice during the past summer she has coughed out fragments of a fleshy consistency, which were evidently parts of some intralaryngeal growth. She has had no cough, no dyspnea nor laryngeal spasm, and is in all other respects than those above stated perfectly strong and well. She has been treated by several practitioners, and on various hypotheses. No laryngoscopic examination previous to mine had ever been made. Her larynx was an unusually easy one to examine, and the glass showed plainly the appearances represented in the drawing. A large papillomatous tumor springs from the left false vocal cord, overhanging a second which is attached in the anterior commissure of the larynx.

Together they block up more or less completely the glottic opening. The lower growth moves backwards and forwards with the respiratory current.

At the first sitting all portions of the growth, with the exception of parts at the anterior commissure, were removed with the Türk's laryngeal forceps.

The next day these portions were shrunken, and more were seen *below* the vocal cords to the right and left. Those upon the right removed with some difficulty. The next two or three sittings were devoted to



the removal of those portions of the papillomatous tumor which lay below the cords; a very difficult matter, as all who have had any experience in this class of operation will allow. I first tried to destroy them with nitrate of silver on a laryngeal probe, but with only partial success; then resorted again to the forceps (Mackenzie's, opening laterally), which I carried through the open glottis at the proper moment and crowded forward, and finally succeeded in removing all, after many attempts. The larynx is now freed from the neoplasm, and the patient's voice practically restored after the first operation; constantly improving in both strength and quality.

No. 6 WEST 33d STREET.

## A CASE OF WOUNDED INTESTINE, WITH EXTENSIVE PROTRUSION.

A NEW METHOD OF REDUCTION.

By M. STORRS, M.D.,

HARTFORD, CONN.

The following case is reported as one having some points of interest, viz.: the extent of the injury, the treatment adopted, and the favorable results which followed. J. M—, an Irishman, æt. about 30, returning home from a drinking-saloon at midnight, Aug. 26th, was wounded in the abdomen with a knife in a scuffle with a fellow companion. Dr. J. N. Parker, of South Manchester, was at once called. He found apparently the whole of the small intestine protruded. Requiring assistance, he waited for my arrival, which was about 4 A.M.

The general condition of the patient indicated a severe shock, faint and pallid; pulse 85, weak. Complained of great pain in the small of the back, none elsewhere. Removing the flannel which covered the abdomen, some eighteen feet, as we judged, of the small intestine had escaped. No omentum was seen. The bowels were dark-red from congestion and distended with gas. There was a transverse wound of the intestine an inch in length, from which there was free bleeding. The serous and muscular coats were divided, and the wound presented the oval form. We were of the opinion that at one extremity of the wound the inner coat was also divided. But there was no escape of fecal matter. The probe was not used. The external orifice of the abdominal wound was two inches in length, reaching from just below the umbilicus horizontally to the right. The internal



orifice was an inch or less, closing firmly around the bowel.

The protrusion had occurred whilst running homeward. The abdominal walls rested flatly upon the spine, and the posterior surface of the abdominal cavity. The patient was etherized. The wound in the bowel was closed by three small, interrupted silk threads passing through the outer coats. This arrested the hemorrhage.

Two strong and long silk ligatures were passed through the abdominal parietes, including the peritoneum, one on each side of the wound. These were given to assistants upon opposite sides, with directions to draw with nearly full strength upwards from the wound, and obliquely to each other. The intestine was then worked in with the fingers, an inch or two at each effort. The external wound was closed with the interrupted metallic suture; cloths, wet with spirit and water, were applied, and morphine was given.

Dr. Parker reports that there was pain and vomiting for four days. Pulse reached 120 on the third day. Abdomen not very tender at any time. Bowels moved naturally on the fifth day. Sutures removed the same day. Morphine was not given in larger doses than  $\frac{1}{4}$  of a grain. Discontinued visits on the 1st of Sept. On the 9th, only fourteen days after the injury, the patient resumed his place as foreman in one of the departments of a silk manufacturing establishment.

We may remark that the facility of reduction in this case was due to the traction by the ligatures. When this was diminished or stopped, no headway could be made. When vigorously used, the reduction was comparatively easy and rapid, and the bowel was subjected to much less handling. In a word, this procedure accomplished the following desirable ends:

*First.* It enlarged the opening beyond the natural limits and beyond the limits through which the parts escaped.

*Second.* Including the peritoneum in the grasp of the ligatures, there was less danger in the taxis of separating it from the abdominal parietes.

*Third.* Pressure of the abdomen antagonistic to reduction was removed.

*Fourth.* An empty chamber was afforded, into which the protruded parts were invited to return and to remain when replaced.

Authors direct that the wound should be enlarged if necessary. If it is a deep and narrow wound, so that the ligatures could not be applied without difficulty, the external orifice, without harm, may be enlarged, converting the wound into one like that which we have described, or like that which the surgeon makes in his operation for hernia—a free external wound, but through the peritoneum a wound as narrow as possible. But where a grooved director can enter the wound, it will be possible in almost every case to insert the ligatures by proper mechanical means.

Hooks, perhaps, could be used instead of the ligatures. In this way we avoid all the risk from further division of the peritoneum, and making use of the natural elasticity of the parts, we not only set free the organ held impacted, but the reduction of a large mass becomes easier and safer.

DR. ERNST EMIL HOFFMANN, Professor of Anatomy in the University of Basle, was found dead in his study on the 15th of December. Death had resulted from heart-disease. The professor was still a young man, and had previously been, to all appearance, in the enjoyment of excellent health.

## A CONTRIBUTION TO THE STUDY OF AUDITORY EPILEPSY.

By ALLAN McLANE HAMILTON, M.D.

(Read before the Medical Society of the State of New York, Jan. 15, 1878.)

FLOURENS, Brown-Séquard, and others, have established the intimate relation between the middle ear and certain parts of the brain, and have settled by conclusive experiments that irritation of this part of the auditory apparatus was followed by disturbance of equilibrium. Crum-Brown, in the *Journal of Anatomy and Physiology*, May, 1874, demonstrated the fact that the various derangements of equilibrium occurring during rapid rotation of the body, were due to variation of pressure of the fluids filling the semi-circular canals.

Ferrier says: "The maintenance of equilibrium is an example of *æsthetiko-kinesis*, and involves the conjoint operation of three separate factors." These are enumerated by this author as: "1. A system of afferent nerves; 2. A co-ordinating centre; 3. Efferent tracts in connection with the muscular apparatus concerned in the action."

The simplest examples of defective co-ordination of these parts is shown in some individuals when the ear is syringed out, and vertigo is produced. In a more serious pathological condition, namely, auditory vertigo, or "*Ménière's disease*," the want of harmony of the equilibrating apparatus is lost, and aggravated vertigo ensues, during which the individual seems to be turned from left to right; objects moving about him in a horizontal plane when the left ear is affected, and if walking at the time, he unconsciously moves to the wall or fence that may be at his right side.

The pathology of the condition may be briefly stated as an irritation of the auditory nerve, a secondary irritation and anemia of that part of the cerebrum, spoken of by Ferrier as the co-ordinating centre, and a resulting impairment of the functions of the efferent nerves, and a consequent disturbance of the equilibrium.

As a rule, those forms of chronic aural disease which affect the middle ear, produce at the most but a transient vertigo,\* and this is of the horizontal or rotating variety. In the disease I propose to illustrate by the case to be presently detailed, the disturbance of equilibrium seems to be expressed by an "up and down," or, speaking more exactly, a *perpendicular* vertigo, if such a term may be coined.

The experiments of Flourens made in 1822, which served as the basis for other experiments undertaken by Ménière in 1861, show the connection between certain lesions of the ear and varieties of inharmonious movement. Section of the semicircular canals produced movements which were influenced by the direction of such canals. Horizontal or lateral rotation followed section of the horizontal canals; backward movements followed section of the posterior or inferior vertical canals, while movements of progression and pitching forwards were the results of section of the superior vertical canals.

What the special lesion is that would give rise to the disorder of movement which occurs during the intervals of the paroxysm in the following case, must still remain a mystery. It is probable, however, that the lesion was compound.

\* I mean "transient," as used to imply a brief attack which may be repeated.

Such cases I believe to be rare. Brown-Séquard \* states that Mr. Hinton, an English surgeon, has reported several when, after death, no lesion was discovered, except evidences of disease of the middle ear. My friend Dr. Roosa tells me that out of five or six thousand cases of aural disease he has seen, he does not remember but one of this kind.

John W. P.—, aged 15 years and 6 months, a stout and apparently healthy boy, well nourished, and presenting no external evidences of disease; family history good. His mother stated that he had always been a rather dull boy, and that at school he was generally behind in his studies and did not seem to learn easily, and when sent on errands he was unreliable and forgetful. There is no history of injury or sudden fright, nor has there been any known predisposing or exciting cause, but at the age of eight years he had a severe attack of scarlatina, which left him with a remaining otitis, most severe on the right side, and resulting in a profuse discharge of pus, which still continues in a modified degree, but is not so excessive as it was a month ago. About six weeks ago he began to syringe his ears with a carbolic acid solution, which had the effect of removing a large mass of what was probably inspissated pus, and his hearing, which had before been quite defective, became greatly improved, and he no longer complained of various subjective noises, such as buzzing and roaring. When the quantity of discharge was diminished his ears became painful, and pressure on the mastoid processes caused much suffering. Ever since the scarlatina he has had frontal and occipital headache, which is always constant. About a month ago he had his first epileptiform attack, and this occurred about noon one day when he was using his syringe. Without warning he suddenly fell to the floor, became convulsed, and in a few minutes recovered, and did not fall asleep, but a semi-unconscious state, however, supervened.

The next attack came on four days after, at 3 P.M. While he was chatting with a friend, he suddenly stopped talking, and fell. This attack was much more violent than the first one. They now became more and more frequent, until about two weeks ago, when on one occasion he had fifteen during twenty-four hours. Since then he has not had so many, having had between one and five attacks every day but one, which was the only day he missed the attack since the commencement. During some of the attacks he is very violent, while in others not so much so. His appetite has been irregular for some time past. An examination made by Dr. Baldwin, house-physician of the Epileptic and Paralytic Hospital, and myself, revealed tenderness on pressure over mastoid processes, but mostly on the right side. He has no definite aura, but peculiar sensations, which he cannot describe, preceding his attacks, which he cannot locate. He complains of vertigo and nausea, and muscular weakness after the slightest exertion. He invariably returns to consciousness almost after the attack. attempts to arise and walk, but is usually quite feeble.

*Examination of Ears.*—R.: Discharge scanty, thin, and sero-purulent, and, on examination, the membrum tympani is found absent. The tick of a watch is heard only when the watch is pressed against the ear. A roaring sound is always present.

L.: The same examination shows more or less congestion of the tympanum, with evident signs of otitis media; but there is not so much pain on this

side, and the hearing is very much better, the ticking of the watch being heard at three inches.

Patient has complained very much lately of deep, severe pain in the frontal, but extending back to the occipital region. With this pain there is dizziness, especially when he stands, thus making it difficult for him to preserve his equilibrium, which is strikingly shown by his irregular movements. When sitting up in bed, he complains that the objects move up and down, and not horizontally, as we would expect to find in ordinary auditory vertigo, and a very interesting and peculiar symptom are the movements he makes to preserve his relation with surrounding objects, his body moving up and down and his head swaying strangely. He is very susceptible to noises and bright lights, either being capable of inducing a spasm at times. Vomiting from an empty stomach is occasional, with dilatation of pupils. The vision of right eye is at times entirely lost, but at others is unimpaired. *Muscae volitantes* are frequently complained of. Examination of urine affords negative results.

*Observations during an attack or convulsion, which occurs at no regular intervals, but is a constant result of irritation of the internal auditory apparatus:*

I. Ear syringed at 9.55 A.M. Patient calm, and not at all nervous; skin of normal hue; pulse regular; temperature normal; pupils somewhat dilated. He passed a good night, and suffered but little pain, though his vertigo was still troublesome. He was placed upon a bed, and the point of an ordinary two-ounce syringe, filled with tepid water, was inserted in the external meatus of the right ear, and the contents gradually expelled. This caused some pain and dizziness, which increased as more water was injected, and when one ounce had been thrown in the patient became suddenly unconscious, and the head was drawn from one side to the other by rapid clonic contractions of the muscles of the neck, and almost at the same time the convulsion became general, the muscles of the back being extensively involved.

About five seconds after this, there were clonic spasms of the muscles of the jaw, so that the patient snapped his teeth, and, at the same time, forcibly inspired, giving vent to a peculiar noise which might be easily compared, by a person of lively imagination, to the bark of a dog.

This paroxysm lasted two minutes, and during its continuance the pupils were widely dilated. The patient remained unconscious; but there was neither pallor nor suffusion of the face. Thirty seconds afterwards, a period of muscular relaxation succeeded, a fresh attack followed, during which there was more marked opisthotonos, much more noise, but no frothing at the mouth. Pupils still dilated, though perhaps not so much so as at first, while the skin was slightly suffused; but there was no duskiess. Duration, one and a half minutes. *Ten o'clock and thirty seconds*, after slight relaxation and subsidence of movements, the lateral jactitation of the head again began, and at *ten o'clock and one minute* a violent accession of clonic, and afterwards tonic spasms made their appearance. The eyeballs had throughout been uncovered, and at first were stationary and immovable, or almost so; but now they were agitated by nystagmic movements, and the pupils were dilated. This paroxysm lasted but thirty seconds. At *ten o'clock and three minutes* there was another seizure, during which the left sterno-cleido-mastoideus was involved in a prolonged tonic contraction. The pupils now partially returned to their normal condition, which was one of slight dilatation, and at *ten o'clock and four minutes* the patient became semi-conscious, answered questions

\* Central Nervous System, p. 96, and Gaz. Méd. de Paris, 1842, p. 25.



in monosyllables, and after a few minutes recovered entirely. The pulse suffered no variation, except perhaps after two minutes had elapsed from the beginning of the seizure, when it seemed to increase in volume, and perhaps slightly in rapidity. There was an entire absence of any external evidence of asphyxia, which is so marked in the more familiar form of epilepsy.

N. B.—Since the above paper was read I have ascertained that the convulsions may be precipitated by simply blowing into the external auditory meatus.

## A CASE OF IDIOPATHIC SYMMETRICAL OSTEOMYELITIS, ANALOGOUS TO RHEUMATISMUS ARTICULORUM.

DEATH ON THE SEVENTH DAY—AUTOPSY.

By CHARLES CARY, M.D.,

BUFFALO, N. Y.

OCTOBER 9th I was called late in the afternoon to see a child, S. M.—, living in the German part of this city.

I found a little girl with the following family history, and a disease presenting the following symptoms:

She was seven years of age; was one of twins; had never been robust, but also had never had any serious illness. Family history of parents particularly healthy.

The child had been ailing for ten days, but was running about until five days previous to my first visit. At that time she complained of pain in the legs and hip-joints; was delirious at times; insomniac; understood all questions asked, but answered unintelligibly; took readily what was offered as nourishment, but had vomited frequently during onslaught of disease; bowels constipated; appearance of countenance, particularly anxious.

The thighs were rotated out so as to allow the legs and thighs to rest evenly on the bed; the legs were slightly swollen, and oedema was discovered extending half way up along the tibia.

The disease had first made its appearance in the left ankle, but within the first twenty-four hours had also invaded the right. Both joints, at the time of my first visit, presented the same appearance of redness and slight swelling, and was identical to acute articular rheumatism. No injury had been inflicted other than a slight blow upon one malleolus four days prior to the invasion of the disease; and, as I stated, both malleoli and both ankles presented at the time of my first examination this rheumatic appearance. The pulse was 120; temperature, 103°.

Gave anodyne to overcome insomnia and pain.

October 10th, 10 A.M.—The child had slept well under the influence of Pulv. Doveri, grs. v., but presented much the same appearance as on previous evening. Pain in the hip somewhat increased; redness and pain from ankles were extending up the leg along the tibia; oedema at this time showing itself as high as the knee. Pain in hip only felt when the femur of corresponding hip-joint was moved. The appearance of thighs was normal, but there being so much pain it was thought that the same disease which had shown itself in the legs with so much violence was extending itself along the thighs as well, though it seemed to make itself known more at the articulations than in the shafts.

All the articulations were movable, but the pain accompanying motion was intense. Child cried out frequently with pain, referred in part to legs, and in part to abdomen. Urine high colored and scanty; bowels still costive. Pulse 130 per min.; temp. 104°.

Gave sulph. morph., grs.  $\frac{1}{4}$  p. r. n.; sodæ et potass. tart., grs. x. Sig. every hour and a half. Spts. frumenti and beef essence as much as could be tolerated.

Oct. 11, 10 A.M.—Called consultation. The patient had been unable to retain salts, but the nourishment had been well borne. All redness had disappeared from along tibia; redness about ankles remaining the same. Tongue typhoid in character. Pulse 114; temp. 104 $\frac{1}{2}$ °. Thorough physical examination made with negative results further than what has already been stated.

The great similarity between existing symptoms and symptoms of rheumatism rendered diagnosis uncertain, but osteomyelitis was suspected. 4 P.M.: Some improvement in general; tongue clean. Anxious expression absent; more intelligence. 7 P.M.: Patient died.

Post-mortem examination sixteen hours after death. Ecchymotic spots along posterior parts of legs and thighs; no appreciable difference observed in size of legs or thighs.

The examination obtained with difficulty and not thorough, owing to objections on part of parents.

An incision made along one tibia was followed by free flow of thin dark pus, with many shreds and strings; tibia softened and completely denuded of periosteum; pus was found under periosteum and completely surrounding the bone; every portion of the tibia which could be investigated through this opening was found in this same condition.

The disease had spread itself evidently by continuity throughout the entire bone. Though the parents rendered it impossible to make a more complete examination, it was thought by those present, who had seen the patient in consultation, that the thighs were in a like condition.

Diagnosis, osteomyelitis. Before closing I would state that, the disease being symmetrical, beginning in the joints and presenting the external appearances of rheumatism, together with its sudden attack, rapid progress, and great constitutional disturbances, it being devoid of traumatic origin, all rendered the similarity most striking and complete between symmetrical osseomyelitis and acute articular rheumatism. The one a very rare, and the other a very common affection.

## THREE CASES OF PUDENDAL HEMATOCELE IN VIRGINS.

By G. H. BENJAMIN, M.D.,

ALBANY, N. Y.

THE difference of opinion that has existed between writers on this subject, in relation to its occurrence in a non-pregnant state, has led me to report the following cases, which have come under my observation during the past two months:

CASE I.—Miss A.—, aged 19 years, is strong, healthy, and of large physique, has never suffered from any sexual difficulty whatever. Upon being called to attend her, "she stated that in descending the stairs she had in some manner caught her foot in the carpeting, and had been thrown violently to the foot of the stairs." Upon regaining her consciousness, "she felt a burning and prickling sensation, and a feeling as though something had given way near the vulva."

Making an examination, I found a tumor occupying the areolar tissue of the right labia, in size about that of an egg.

CASE II.—Miss S., aged 23, met with the accident while skating. Coming in contact with another

skater, both fell, she striking the vulva on the skate of the other party. She immediately felt pain, burning, and the sense of giving way. Examination revealed the presence of a tumor occupying the entire length of the right labia. Both labia were very much bruised and swollen. The sharp point of the skate had made an ugly wound in the perineum, about an inch in length, dividing the sphincter muscles of the vagina and anus. The tumor was the size of an orange, very tense and painful; for an hour it continued to enlarge. Local applications were ordered, and sufficient opium given to insure rest.

CASE III.—Miss D., aged 21 years, employed as a servant, received the injury by falling and striking the part violently on the handle of a wash-tub. In this case the tumor was small, but little larger than a walnut, and situated rather higher on the labia than the others; there was little pain, and it could be moved backward and forward, simulating very closely a hernia.

In each of these cases the same treatment was adopted, viz., flaxseed poultices, until pain and inflammation had subsided, after which I introduced a small needle connected with a "Dieulafoy aspirator," and removed such fluid as the sac contained, after which an injection of alum, grammes viij. to water  $\frac{5}{2}$  i. was injected and allowed to remain five minutes. The sac was then opened, and the finger introduced, and the clots removed. No hemorrhage of any consequence occurring, a simple pad and T-bandage completed the dressing. Recovery in each case was rapid. My object in using the aspirator and the injection of alum was to produce as firm a clot as possible, to control hemorrhage, and to excite a little inflammatory action for the purpose of closing the wound quickly.

It may be said that these cases are not fair examples, being entirely due to traumatic causes, but I have yet to learn of a case occurring in the pregnant or non-pregnant state, that can be said to be purely idiopathic in its origin. The fact that in each of these cases the tumor occurring on the right side, seems to add weight to the statement of Boer, viz., "that the right side is more frequently the site of this condition." In the first case cited there were no signs of direct violence, the condition being due to muscular strain.

## Progress of Medical Science.

SEXUAL EXHAUSTION.—According to Dr. H. C. Wood, Jr., this condition may be due to onanism or excessive venery. The treatment of masturbation he divides into hygienic, medical, and surgical, but adds that he has never yet seen a case requiring surgical interference. Of course the habit must be given up at once; then the hygienic treatment is in order, and this consists in plenty of physical exercise, use of farinaceous food, abstinence from meat as far as possible. Whatever tends to excite and irritate the genitals in the way of exercise, company, literature, etc., should be absolutely forbidden. The object of the medical treatment is to subdue the excessive irritability of the parts, and this may be done by potassium bromide, grs. xx. to, grs. xxx. three times a day, or bromated camphor, grs. v. in emulsion at the same intervals. Iron and some bitter tonic may be profitably employed in conjunction. Ergot is frequently of use. In the treatment of excessive venery, continence is again re-

quisite. Where the emissions are numerous, the same hygienic measures as in cases of masturbation must be employed. Nourishing food, warm clothing, and plenty of sunlight and exercise are indispensable. Iron, bitter tonics, and the bromides are indicated. Phosphorus is a specific remedy, and may be given alone or with ergot. Impotence, due to excessive irritability of the organ, should be treated with continued doses of the bromides. Where there is loss of power without irritability, the tincture of cantharides and the tincture of chloride of iron should be given. In impotence with spermatorrhœa, the tincture of cantharides acts like a specific, but it should not be given where debility is absent. If further treatment be required, cold bathing, strychnia, and electricity may be employed.—*Medical and Surgical Reporter*, Dec. 22, 1877.

RESULT OF THE BROWN-SÉQUARD TREATMENT OF EPILEPSY.—Dr. James B. Ayer reports twelve cases of epilepsy in which systematic treatment has been followed. In all, the following prescription was given:

|                          |         |
|--------------------------|---------|
| ℞. Sodii bromidi,        |         |
| Iodinii bromidi,         |         |
| Ammonii bromidi, āā..... | 5 iij.  |
| Potassii iodidi,         |         |
| Ammonii iodidi, āā.....  | 3 iss.  |
| Ammonii sesquicarb.....  | 1 i.    |
| Tinet. calumbæ.....      | 3 iss.  |
| Aque destillat., ad..... | 5 viij. |
| M.                       |         |

Full Dose: One and a half drachms before each meal, and three drachms at bed-time.

In four cases the results were very satisfactory; reduced to a single attack in forty-six months, thirty-one months, twenty two months, and sixteen months, respectively. In five cases, number and severity of attacks both diminished; in one, severity diminished, number unchanged; in two, no change in number or severity. In eleven cases there has been marked improvement in general health and mental condition; in one there has been slight improvement.

An extra dose taken at the appearance of the first premonitory symptom, very often succeeded in averting a threatened attack. There was but little iodism or bromism.—*Boston Medical and Surgical Journal*, Dec. 27, 1877.

SPINA BIFIDA TREATED SUCCESSFULLY BY INJECTIONS OF IODINE.—Dr. Leal, of Kendallville, read before the N. E. Indiana Medical Association, the report of a case of spina bifida in which the sac was injected with tincture of iodine, with most satisfactory results. The patient was a boy, three months of age, presenting a fluctuating tumor at the junction of lumbar and sacral vertebrae. The tumor was pedunculated, and could be emptied by pressure, but whenever this was attempted, the evident irritation of the nervous-centres gave ample evidence of the communication between the sac and spinal canal. A cord was placed around the pedicle of the tumor, apparently with the object of closing the sac, for it was at no time tight enough to cut off circulation. The sac was then tapped, several drachms of fluid being withdrawn, and half a drachm of the diluted tincture of iodine injected; strong tincture of iodine was painted on the outside, and adhesive strips were applied to press the tumor against the child's body. The lump inflamed, the sac closed, and in twenty-two days the case was dismissed. This was done four years ago, and to-day the child gives every evidence of being perfectly



cured. The application of the ligature is considered one of the principal points of the treatment, without which the operation would be dangerous, but where this is impossible, Dr. Leal suggests the possibility of transfixing the base and applying multiple ligatures.—*Detroit Medical Journal*, Dec., 1877.

**ROTARY LATERAL CURVATURE OF SPINE AND THE PLASTER-OF-PARIS JACKET.**—It is not recommended that all cases of lateral curvature be treated by the plaster jacket. One case, caused by an inch and a quarter shortening of one extremity, was cured by adding that amount of extra sole to the shoe of the affected side, but the majority of cases are believed to be caused by the inability of the spinal column to support the weight of the head and shoulders. Dr. Sayre removes this burden by suspending the patient by the head and hands, allowing the weight of the body to straighten the vertebrae, and while in this position he applies a plaster jacket. The immediate effect of this treatment is claimed to be very good, but he gives no very positive prognosis as to the ultimate result. Suspension by the head and hands was first practised by Dr. Benjamin Lee, of Philadelphia, in following out the idea of the late Dr. Mitchell, who recommended suspension by the hands alone, though he never brought it prominently before the profession.—*Medical and Surgical Reporter*, Jan. 5, 1878.

**POISONING BY SMALL DOSES OF GELSEMIUM.**—Dr. Wharton Sinkler ordered fluid extract of gelsemium in doses of five drops, three times a day, for a case of facial neuralgia. The treatment was continued nearly two weeks, when the doctor was suddenly called to his patient, whom he found lying on a sofa, unable to sit up or to move at all. The extremities were cold, the pulse small and feeble, respirations sighing and jerky, pupils dilated, and the eyes suffused. There was paralysis of the bladder, the urine dribbling away constantly, and although there was general muscular enfeeblement, it was most marked on the right side. The family said that the symptoms had first appeared on the day previous, but only to a slight degree, becoming rapidly worse during the morning. The patient had taken the gelsemium three times the day before, and once that morning. They were sure not more than five drops had been given at a dose. She was put upon potas. bromid. grs. xv., and morphine sulph., grs.  $\frac{1}{2}$  every two hours, and in a few hours was much relieved. It was now found that from the first the drug had produced loss of power over the bladder for an hour or two after each dose. The neuralgia was in no way modified.—*Philadelphia Medical Times*, Jan 5, 1878.

**SOME AFFECTIONS OF THE NERVOUS SYSTEM DEPENDENT ON A GOUTY HABIT.**—J. Russell Reynolds defines the "gouty habit" as a "toxæmia," chronic in its duration and multifiform in its phases, a "blood poisoning" induced within the system. That which has led him to ascribe so many of the so-called "nervous affections" to this gouty habit, may be thus summarized: 1. The actual presence of gout in the joints of the individual at the time, or at previous times. 2. The evidence of gout in ancestors or collateral relatives. 3. Frequent occurrence of acid eructations, with chronic dyspepsia. 4. The emission of pale limpid, acid urine, of a low specific gravity, and with traces of albumen, or sugar, or both. 5. The variability of symptoms, both as to kind and place. 6. The presence of some alterations in skin-nutrition, such as eczema and psoriasis. 7. The impossibility of referring the symptoms to any known disease of

brain or spinal cord. 8. The immediate relief of such symptoms after treatment by colchicum and saline aperients, although simple purgation and treatment upon many other principles had failed. He has adopted the method of describing "groups of symptoms" under five headings:

I. *Mental Disturbances.*—Patients complain of great restlessness; are alternately excited or depressed; sleep badly; are intensely hysterical, etc., all of which symptoms disappear under treatment upon this hypothesis. This group may alternate with, or accompany the next.

II. *Pain in the Head.*—Sometimes very intense; is confined to one side of the head, usually parietal or occipital; without over-sensitive nerve-points, or tenderness of scalp, and is not increased by mental exertion.

III. *Modified Sensations.*—1. Vertigo. 2. "Noises in the ears." 3. Deafness and "beating in the ear." 4. "Numbness," "tingling," "creeping," "deadness," or some other altered state of sensibility in the limbs. The most characteristic sign of their gouty origin is their variability in kind and locality. Darting pains, resembling those of ataxy, are very frequently met with. Sciatica, often shifting, and myodynia of all localities are common.

IV. *Modifications of Muscular Action.*—1. Cardiac palpitation, intermittent or irregular pulse, or painful aortic pulsation at and below the epigastrium. 2. Flickering contractions of muscles in limbs; tonic spasms; "startings" on falling asleep; priapism without erotic feeling. 3. Local weakness of muscles, as ptosis; want of co-ordination, giving an ataxic gait.

V. Lastly, symptoms which he simply enumerates as helps to diagnosis. 1. Dyspepsia, cardialgia, distention of stomach and colon with flatus, pyrosis, and acid eructations. 2. Varicosities of veins, with tendency on slight injuries to occlusion of veins. 3. Brittleness and vertical lining of the nails of both fingers and toes. 4. Slight conjunctivitis with occasional chemosis.

These groups of symptoms sometimes coexist, sometimes alternate, and their phases are often very puzzling, but under the treatment proposed disappear with a rapidity quite magical, and reminds one of that beautiful process of clearing a photographic picture by cyanide of potassium.—*British Medical Journal*, Dec. 15, 1877.

**HERNIA OF THE SEMI-CIRCULAR LINE.**—M. Daniel-Mollière, of Lyons, reports a new case of this variety of hernia. It occurred in a woman fifty-five years of age, and had first become apparent about a year previously. At this time, under the influence of a fibrous tumor of the uterus, she was suffering from considerable ascites, with enormous distention of the abdomen. A few days later severe pains were felt about the middle of the semi-lunar line, and soon after a tumor made its appearance. A quack passed a seton through the tumor, giving exit to about twenty litres of fluid, according to the statement of the patient. This wound healed, but a reducible tumor remained, which was easily proved to be an intestinal hernia, and which was retained in position without much difficulty by means of a truss. The author remarked that this abdominal ectasis, occurring at this point under the influence of an enormous distention of the abdomen, seems to prove the existence at the border of the right rectus of a *locus minoris resistentiæ*, a feeble point which permits of distention, and gives passage to these herniæ, as the quadrilateral space of the lumbar region allows the escape of the hernia of J. L. Petit.—*Gazette des Hôpitaux*, November, 1877.

# THE MEDICAL RECORD:

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## MEDICAL INSTITUTIONS IN THE UNITED STATES.

A MODEST pamphlet of sixty pages, printed as a special report, prepared for the Bureau of Education, and entitled "Contributions to the History of Medical Education and Medical Institutions in the United States," has just been issued at Washington. The author, Dr. N. S. Davis, published in 1850 a small volume on the same subject. It has been out of print for fifteen years, but considerable of its material is now republished. The plan of the work has been to treat the subject topically rather than philosophically, and the result is a statistical exhibit of the development of medical education here rather than a connected historical monograph. This renders the work doubly valuable in some respects, though necessarily dry and uninteresting, save to members of the medical profession. The bibliography of the subject is so limited, however, that the general reader will be glad to know where a collection of the facts can be obtained. Dr. Beck's paper in the Transactions of the Medical Society of the State of New York, to which reference is made, is difficult of access, and Dr. Toner's monograph, 1874, also quoted, is but a Bureau of Education document. It appears from the slender data gathered by Dr. Davis, that in 1776 there were about four hundred medical men in the United States, most of whom had received their medical and literary education in European institutions. Only two medical colleges were in operation here, to wit, the Medical College of Philadelphia, now the Medical Department of the University of Pennsylvania, and the Medical Department of King's (now Columbia) College. Only fifty-one medical degrees had been conferred by both prior to 1776. Hence, our medical history is practically limited to a century, during which has been built up a vast but unsifted mass of schools and literature, the principal data of which Dr. Davis describes in his pamphlet. The latter also includes

medical legislation in the various States, and notes by the way on the standards of medical education prevalent at different stages in the development of our educational system. The organization of medical societies is briefly mapped out in a few valuable concluding pages.

But what concerns our purpose in the main, because of its vital influence on the future of medicine, is that the germs of higher standards of medical education were planted in this State as early as 1839, in a recognition, by resolution of the Medical Society, of the only method of thorough reform—the separation of the power of conferring degrees from faculties of medical instruction, and the vesting of the former in State boards of examiners. In 1844, Dr. Davis brought the subject prominently before the New York State Medical Society again; in 1855 it was a third time discussed by the same body, and a call for a convention of delegates from all the medical colleges and societies of the United States was issued. From that convention, held in this city in May, 1856, came the American Medical Association. Meanwhile, in 1837, a similar movement had been set on foot in Philadelphia, which went as far as organizing an institution for the sole purpose of examining candidates and conferring degrees, and a petition signed by one hundred and twenty-six physicians was presented to the Legislature asking that body to give it legal effect and sanction. Of course, it came to naught; the Legislature not being prepared to confess the need of a higher standard. It is quite probable that the colleges had some hand in defeating the measure also.

There is no doubt that the very extraordinary numerical development of medical colleges in the United States has had a tendency to stimulate emulation in methods of instruction, to lead colleges to secure the best professors possible, and to compel each by sheer force of rivalry to equip its laboratories and museums in the most efficient manner attainable. Another result, not so favorable to an advance in standard, has, however, followed directly and inevitably upon the multiplication of institutions. They have been led to shorten their annual courses, even to abridge them from three to two years, and to insist less rigorously (and in some instances scarcely at all) upon preliminary training. In this practical age, a young man, having once decided to become a doctor, naturally inquires where his degree can be obtained with the least expenditure of time and money; and colleges have gradually yielded to this exigency, one after another, on the ground that not to yield would be to maintain a staff of professors to lecture to an empty class-room. The depreciation in value of medical diplomas, and loss of prestige as one of the learned professions, have been the results. It appears that Latin and Greek, and the writing of a Latin thesis, as preliminary to matriculation, were abandoned by the medical department of the University of Pennsylv-



vania as early as 1792. Natural philosophy, natural history and botany soon followed; and the example of one of the oldest institutions in the country has naturally been accepted as a convenient and politic standard by colleges of more recent origin.

As Dr. Davis very justly observes, the general acceptance of the college diploma as a full admission to practice is wholly responsible for this deterioration. On the contrary, if there were State Boards of Examiners, independent of college faculties, who should grant licenses to practise only upon thorough examination, the case might have been entirely different, and these would have created a censorship dreaded at once by the candidate and by the college presenting him. For the candidate there would have been the risk of rejection; for the college the loss of repute consequent upon a too large percentage of such rejections. The duty that the American Medical Association has before it, therefore, is to press in every State for the creation of such boards, and for a uniform standard to be adopted by them. Of course, a reform of this magnitude must necessarily make slow progress, and will meet with determined opposition from at least one-third of the medical colleges now in operation; for out of our sixty-four medical schools, one-third, according to Dr. Davis, are so situated that they can furnish students with no adequate facilities for clinical instruction, and such must of necessity be extinguished. To elevate the standard of preliminary training is, unfortunately, not so simple a task as that of raising the strictly medical standard. A convention of the colleges themselves, to agree upon a uniform standard, appears to be the only practicable solution.

#### THE NEW YORK HOSPITAL.

ALTHOUGH considerable space has already been given to an account of the reopening of the New York Hospital (see *MEDICAL RECORD*, volume for 1877, No. 12), the official report of the Building Committee and the address of Prof. Van Buren, just issued in a handsome pamphlet, naturally invite further comment. Our previous article was mainly concerned with the history of the institution that was so long a prominent landmark on Broadway, and with a description of the new hospital buildings. It will not be questioned, perhaps, that the latter are as perfect in all their details as lavish expenditure can make them, nor that the new hospital is in many respects a model of convenience and elegance. But its present situation is hardly one well suited to hospital purposes; and considering the number of patients it is capable of receiving, it is difficult to resist the conviction that the new arrangement is a monument of extravagant if not prodigal expenditure. It should be remembered always that a public hospital ought not to expend in costly erections and appurtenances that which should properly

be expended in the legitimate function of such an institution, the treatment of the sick and suffering, and that even a private or associate institution lays itself open to criticism, when its building expenditures exceed the limits called for by the necessity of securing the best attainable hygienic conditions. However, the financial report is not just now under consideration, and extended comment in that direction is scarcely relevant to our present purpose. What the buildings lack in space and roominess they compensate for in elegance and perfection of detail; and opinions upon the management of hospital funds may reasonably differ without either calling in question the propriety of the other. In regard to the building itself, there are some matters which are amenable to criticism. In the first instance, the soil was not well adapted to the purposes of such an erection, and to secure a perfect foundation was a matter of considerable anxiety; for, while the bottom was so soft a rod could be forced down to a depth of forty-eight feet on the west end of the lot, solid rock cropped in upon its eastern limit. Considerable preliminary outlay was necessary to overcome this difficulty, as the sustaining capacity of the soft soil was only about two tons to the square foot. As, however, the work has been satisfactorily accomplished, it seems ungracious at this late day to dwell upon these details.

The address of Dr. Van Buren, however, or rather that part of it in which he discusses the sanitary arrangements of the new structure, naturally calls for some remarks. On page 21, that eminent surgeon intimates that with Lister's appliances hospitalism need not be feared hereafter at the New York Hospital, although he pretty frankly admits that in the matter of hospital hygiene, as in that of hospital construction, science has not yet spoken her last word. It may as well be added also that there are still doubts as to the exactness of M. Pasteur's conclusions and as to the strictly scientific theory of Lister's method, although but little question remains as to the practical value of antiseptic surgery. "It is immaterial," says Lister, "how many stories or wards there may be in a hospital, provided the details of the antiseptic method are accurately carried out in all of them. If these details are faithfully observed, hospitalism can be prevented." But these, Prof. Van Buren should remember, are the words of a theorist, who, as the Italians wittily say of such, has a grasshopper in his head. The practical question is to carry out such details with as little trouble and cost as possible; and it remains to be seen whether the new hospital buildings are well adapted to this purpose. They certainly afford an opportunity to show what comparatively perfect ventilation can accomplish for patients, combined with cleanliness, excellent sanitary regulations, and the Lister method. But it is speaking a little too positively, though Prof. Van Buren's enthusiasm is of a very pardonable kind, to announce that hospitalism need

not henceforth be feared. Time will determine that question in its own way, and it is never worth the while to hazard unnecessary prophecies upon dubious issues. The most unfortunate thing that can happen to a scientific man is to be caught prophesying incorrectly.

To be sure, old things must pass away, no matter what our sorrow in parting with them, but every artist eye missed a picturesque passage when the old New York Hospital disappeared from Broadway; and, with all its costly appliances, its tiled floors and Turkish carpets, its Eastlake furniture and solarium, the new structure can never efface the memory of the old Broadway institution which for so many years was the leading hospital in this country. Indeed, in point of patronage, the New York Hospital has now ceased to be superior to others in this city, and in prestige it seems to have lost something of its supremacy also. It is possible that the period of migration may have had a material influence in bringing about this state of things, and that the institution will soon recover its former hegemony. Until then, neither Lister's method nor Eastlake furniture can renew the brilliancy of its record during the three-quarters of a century when it sojourned on Broadway, and commanded the great resources of such men as Dr. Wright Post, Dr. Valentine Mott, Dr. A. H. Stevens, Dr. F. U. Johnston (the first to relinquish the old treatment of fevers by depletion), and Dr. John Kearney Rodgers—to say nothing of the long list of brilliant names upon its roll, from Kissam to the lamented Gurdon Buck. Indeed, nearly every surgeon identified with the old "City Hospital" has come down in surgical history as the originator of difficult and daring operations; and if the new one is to vindicate its claim as its successor, it must be by means of a surgical record as striking and brilliant.

#### ASYLUM MANAGEMENT IN NEW JERSEY.

A BILL is pending before the Legislature of New Jersey, advocating some change in the government of the insane asylums of that State. It provides for a board of visitors to the asylums, to consist of one member from each board of chosen freeholders in the respective asylum districts. The argument in favor of the bill is that the counties pay about \$3.75 per week for the support of each patient in the asylums, out of a total cost of \$4.75 (the other dollar being paid by the State), and that the said counties should have an authoritative supervision over the institutions.

We fail to see how any possible objection can be offered to such a proposition, inasmuch as it involves the recognized associations of taxation and representation, and the vindication of one of the fundamental principles of free government. But, aside from this, the very reason why the officers of the asylums oppose the measure, on the grounds that it is of no use, and that the visiting boards would be a nuisance, is, perhaps, the strongest argument in favor of the change.

There does not appear to be any provision in the bill which tends to give these inspecting boards any actual control of the asylums, or any direct power to manage them, but simply to vest them with the requisite authority to superintend the manner in which the funds of the counties are dispensed.

So far, then, the asylum officials should be pleased to favor the passage of the bill, as it enables them to share the responsibilities of the pecuniary management of these asylums with a perfectly impartial board. In this connection, and as an offset to the discussion which this bill has introduced before the committee, the State Comptroller has appointed an agent to visit the various counties for the purpose of ascertaining the cost of supporting lunatics in county asylums and almshouses. As this is a question, the settlement of which at this time is particularly interesting, we have hopes, even if the bill does not pass, that much good will be accomplished by the collateral investigations which the presentation of said bill has made necessary.

#### PROFESSIONAL OVERWORK.

DR. T. A. EMMET, in his admirable memoir of Dr. E. R. Peaslee, read before the Medical Society of the County of New York, remarked that the subject of his sketch died of overwork. No one can doubt this fact, and no one similarly situated as was Dr. Peaslee should fail to heed the lesson which his untimely death affords. It is a well-established fact that ultimate success in our profession means hard work, and when this success is attained, it is still harder to restrain a desire to work within proper limits. There is a fascination about professional progress which increases with the means of its gratification until in some it becomes almost irresistible. This fact was strikingly exemplified in the case of Dr. Peaslee. The members of the Medical Society of the County of New York will remember that it was but a short time since that he, in some remarks upon the death of the lamented Dr. A. B. Crosby, referred to the necessity of conserving the vital forces, and guarding against the very excesses of labor to which he himself fell a victim. Every one who heard him on that occasion must have been impressed with the conviction that he appreciated the full force of his remarks and governed himself according to their spirit. But, alas, scarcely six months elapsed when, in the same hall, Dr. Peaslee's memoir offers a melancholy verification of his own warnings.

THE POUCHET MONUMENT IN ROUEN.—A monument has been erected in Rouen to the memory of F. A. Pouchet, whose name is indelibly connected with the questions of spontaneous generation and the globular state of fluids. It was built by public subscription, and was formally unveiled on the 29th of last December. M. Penetier, the Director of the Museum, delivered the eulogy. The monument, which consists of a bust surrounded by a peristyle, is placed beneath the entrance to the Museum of Natural History.



## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, December 12, 1877.*

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

#### CURIOUS CONGENITAL DEFORMITIES OF UPPER AND LOWER EXTREMITIES.

DR. M. P. JACOBI presented a child with congenital deformities of the upper and lower extremities. It was the ninth child of healthy parents, and was now six months old, very healthy, with a well-formed head, and remarkably lively and intelligent countenance. The deformities were caused by multiple arthritis, with accompanying paralysis of the muscles of the corresponding limbs. Both elbow-joints were ankylosed, the arms being in extension. Some slight movement could be effected at the right elbow, but none at the left. The fore-arms were in pronation; the hands flexed and deviated at the wrist on the cubital border—as in arthritis deformans. There were, however, no deformities around any of the articulations; all the muscles of the fore-arms and hands were paralyzed, flabby, and atrophic. Not only response to the will was lost, but also to the faradic current. The galvanic current acted feebly, but there was no degenerative reaction. The scapulo-humeral articulation and the muscles of the arm were healthy.

The lower extremities presented analogous lesions. The femurs were abnormally short; the knees strongly flexed, and each presenting on the anterior aspect two or three shallow round depressions about the size of a bean. Extension could only be made partially. Both feet were in talipes varus, and all the muscles of the leg and ankle-joint were paralyzed, flabby, and atrophic, with the same electrical reactions as those of the fore-arms. The cause of this double lesion must be either spinal or local, for the cerebrum was evidently not involved. We might ask whether the paralysis was the original lesion—produced by some extensive myelitis, of which the arthritic lesions were also symptomatic, as in the spinal arthropathies described by Charcot, or the arthritis deformans occurring in tabes; or, on the other hand, whether a multiple synovitis, a foetal rheumatism had not caused a reflex paralysis, first of the muscles around the joints involved (elbows and knees), then of all the muscles of the limbs below these joints. A thesis by Vallat had recently been published in Paris on such paralyses in adult synovitis. The thesis extended the classic observation, long since made, of paralysis of the deltoid after inflammation of the shoulder joint, and contained observations of Le Fort, Gosselin, Ollivier—even some from John Hunter—where analogous paralyses had been observed after synovitis of various articulations. Vulpian explained such cases as a reflex trophic irritation of the muscles surrounding the joint, starting from the sensitive nerves of the synovial, and reflected to the muscular nerves. Dr. Putnam-Jacobi was inclined to consider the present case as an example of such a morbid process. In adult life recovery was the rule, but it was conceivable that a trophic irritation of muscular tissue in the foetus should be followed by more profound and permanent results. It was not absolutely impossible, however, that the muscles should still be restored by galvanism.

#### VISCERAL SARCOMA.

DR. BRIDDON presented some specimens of visceral sarcoma with the following history:—Rebecca M., *et.* 24, single, teacher, was admitted to the Presbyterian Hospital, June 2, 1877, service of Dr. Briddon. She then had a large, movable, resisting tumor in the gluteal region below the crest of the right ilium. In itself it was not painful, but gave pain by its pressure. It had been four or five months coming. Its etiology not known.

On the 7th of June the tumor was removed. Under the microscope it proved to be a *cysto-sarcoma*. The wound was progressing rapidly toward cicatrization when, on the twentieth day after its removal, the growth was seen to have returned in the track of a tube which drained the bottom of the cavity left by the removal of the original tumor. Without delay it was cut down upon and scooped out, being as soft as cerebral tissue, and already containing small cysts. The part was then thoroughly cauterized with a strong solution of chloride of zinc (3 i.—5 i.). Twice within the next three weeks the growth returned and was destroyed with the same caustic application. Each time the chloride of zinc was used it left the ulcer, after the separation of superficial sloughs, covered with small healthy granulations, and with a marked tendency to contract.

About the middle of August the wound was all but healed, when a mass probably the size of a walnut was detected in the cicatrix. As the patient had lost not a little in health and strength by high temperature, suppuration, pain, and confinement to bed, she was advised to go to her country home, stay a few weeks, and return in better condition for another operation, which she accordingly did.

When, on the 13th of October, she returned after an absence of seven weeks, two tumors presented themselves in the gluteal region on the right side, encroaching upon the right lateral abdominal wall. The upper one had broken in two places where fungoid masses protruded; the lower one, as large as a fist, was ready to break. Posteriorly to them was an aperture made by one of the old cicatrices giving way, from which a serious hemorrhage had taken place eleven days before her return.

Oct. 18th, Dr. Briddon operated for the removal of the tumors. The incisions were made free and through sound tissue. Every suspicious part was cut out, even down to the bone (crest of ilium). No effort was made to close the resulting wound by suture; the whole surface, extending from the floating ribs to below the greater trochanter and backwards to within an inch of the median line, was treated by a thorough application of the chloride of zinc (3 i.—5 i.). After suppuration had become established the regular dressing consisted of lint spread with salicylic ointment and broad, adhesive straps to approximate the sides of the wound and (by their pressure) repress exuberant granulations. The patient's temperature after the operation ran on irregularly—generally above 102°.

In the early part of November her condition was complicated with a double pneumonia. A crisis came on the seventh day. While resolution went on rapidly on the left side the dulness on the right slowly and only partly cleared up. The changes in the lungs could not be closely followed because of the difficulty in moving patient, but were regarded as indicating secondary growths. The liver was now found greatly enlarged, probably also from multiple tumors. Patient soon required to be constantly under the influence of morphia. She became cachectic. Œdema appeared in her extremities, more pronounced on the right side.

By about the end of November the wound had contracted about one-third; the granulations upon its surface showed a constant tendency to become large and oedematous. For a time galvanic electricity was applied (the positive electrode upon wound) with the effect of relieving pain temporarily, inducing the growth of small granulations and stimulating contraction of the wound. But patient failed rapidly, and died (Dec. 7th) of extreme exhaustion.

At the autopsy (held thirty-one hours after death) the heart was found displaced to the left, its apex reaching the axillary line. Otherwise normal.

The right lung firmly adherent to the chest-wall at every point. It completely filled the right pleural cavity and encroached upon the left, pushing the heart before it and compressing the left lung. The right lung weighed 46 oz. The upper lobe in good condition; the lower lobes infiltrated and distended with a pultaceous substance.

Left lung adherent posteriorly. On the anterior surface of the lower lobe and between the lobes are adhesions of recent origin. The lung is diminished in size by compression. Lower lobe oedematous.

No infiltration of bronchial glands.

The parietal peritoneum on the right side at a place corresponding to the ulcer had evidently been acutely inflamed shortly before death.

The Liver, 6 lbs. 12 oz., extended entirely across the abdominal cavity and down below the level of the anterior superior spines of the ilia. In removing the organ it broke in several places, and a substance similar to that found in the right lung escaped.

The Spleen, 25½ oz., at its upper part was about normal in appearance; but in its lower half was enormously distended with some pulpy material. The other viscera are of no special interest.

Frozen sections of right lung. Liver and spleen are presented to the Society, illustrating in a most beautiful manner the multiple sarcomata of these viscera. Though six days have elapsed since death, the organs present the exact appearance they presented when removed from the body, the yellowish color of the neoplasms contrasting vividly with the surrounding healthy structure, and it is probable that in no other manner could the specimens have been preserved so as to illustrate the gross appearance as observed at the autopsy.

The tumors in the liver are more or less circular, circumscribed, and of a light yellowish or fawn color, that in the lung less circumscribed, in fact it appears to be infiltrated through the whole lower lobe.

The spleen has a very peculiar appearance. The upper two-thirds normal in form and structure; the lower third is expanded into a globular mass, about five inches in diameter. This tumor is darker in color than the others, stained and blotchy with hematine.

#### SARCOMA OF ARM—AMPUTATION AT SHOULDER-JOINT.

Dr. C. M. ALLIN presented a specimen of sarcoma of arm, for which amputation at shoulder-joint was performed with recurrence in the stump and secondary deposits. E. S., male, admitted to New York Hospital April 5, 1877, aged 23; Ireland; single; blacksmith. Family history good; previous health good; no history of injury to diseased arm, except that one day, while swinging the sledge-hammer, he felt a sharp pain midway between the shoulder and elbow. In December, 1876, nocturnal pain in right arm first noticed. This soon became continuous. In March, 1877, arm began to enlarge, and forearm and hand swelled. Examination reveals a hard tumor involving the up-

per end of the right humerus; skin dark purple; veins enlarged; radial pulse is full and strong; limb is the seat of numbness; no paralysis; the scapula moves with the humerus; no cachexia; no enlarged glands; right arm at axilla measures 17 inches; the left, in same place, 13 inches in circumference.—April 12th. Right arm, 18 in.; left, 12 in.—April 21st. Arm removed by me at shoulder-joint, which was not implicated in the new growth; veins much enlarged; growth was found to be periosteal, involving, however, the shaft of the bone to its lower fourth; wound was dressed with drainage tube, sheet-lint, and carbolic oil.—April 30th. Great pain; some discharge; one ligature came away.—May 4th. Two ligatures came away.—May 30th. Pain in hepatic region; can't draw a long breath.—June 5th. Small abscess opened just below the cicatrix.—June 21st. Painless enlargement appears below the glenoid cavity; yields only blood to the exploring needle.—July 5th. Tumor growing rapidly; begins to show granulations on its surface; another swelling has commenced lower down.—July 25th. Pain in left thigh; limb is enlarged and hard; has no heat or redness; the scapular tumor bulges out and presents a sloughy surface; odor foul; antiseptic dressings applied.—July 29th. Some blood and one ligature discharged; loss of appetite and emaciation set in.—Oct. 1st. Large fungoid mass springing from the glenoid cavity, 12 in. by 10 in.; its surface in some points covered by healthy looking granulation tissue, and at others by a grayish-black slough.—Oct. 20th. Died.—Autopsy, 13 hours post-mortem: Skin white; emaciation great; superficial abdominal veins very prominent; no bedsores. Only part of scapula not involved is a narrow margin at the posterior border; scapular muscles displaced and atrophied; clavicle and acromio-clavicular joint not implicated; no enlargement of the axillary or cervical glands. Internal mammary veins much enlarged; anterior mediastinal glands not enlarged; heart normal, firm; whitish clot in the right ventricle; pleuritic adhesions; no fluid; nodules on and in lungs of hard white substance, varying in size from peas to eggs; an immense deposit at the base of the right lung. Some fatty spots in the liver; all other viscera normal; mesenteric glands very numerous, enlarged and white. The sides of the lower lumbar vertebrae and both iliac fossae are the seat of numerous hard tumors, some resembling enlarged glands, while others are more disseminated. One of these tumors pressed upon and was adherent to the inferior vena cava, which for a distance of two inches above and below was filled by a hard adherent thrombus. Thrombi extended into both iliac veins, and their branches completely closing them. Lumbar plexus was put on the stretch. Large hard tumor occupied the hollow of the sacrum on the right side, leaving just room for the passage of the rectum.

#### SARCOMA OF ULNAR NERVE ENDING IN AMPUTATION OF SHOULDER-JOINT AND EXSECTION OF SCAPULA.

Dr. BRIDGON, in connection with this case, referred to a similar one which had occurred to him fifteen years ago. The sarcoma involved the ulnar nerve. The first operation consisted in excising four or five inches of the nerve along with the tumor. In seven months the disease returned in the upper portion of the excised nerve and extended in the course of its trunk to involve the soft tissues as high as the shoulder-joint. Amputation at that point was performed. She then entered the New York Hospital, the disease of course returning, when Dr. Parker excised the bulbous nerves high up. A short time after this the disease reappeared at the seat of the last



operation, and Dr. Buck excised the diseased portions, which consisted of the scapula and one-half of the clavicle. Returning again for the last time, the disease invaded the interseapular spaces, when operation was out of the question. Until the third operation the disease followed the course of the nerve. At no time did it invade the bone.

DR. SELL referred to the case of sarcoma of the mamma which he had removed a few months ago. In a few weeks after the wound healed the disease reproduced itself in the cicatrix. The patient went to a cancer quack, who applied a caustic, and the resulting sore never healed. Death occurred suddenly.

DR. POST presented a specimen of epithelioma of the upper lip, which he had removed by operation from a man aged 43 years, who, strange to say, had the disease for eighteen years. In order to fill up the gap occasioned by the operation, a flap was transplanted from the cheek.

DR. BRIDGON performed a similar operation in that same locality. In the course of six months the disease returned.

## NEW YORK MEDICAL JOURNAL ASSOCIATION.

*Stated Meeting, December 21, 1877.*

DR. ROBERT F. WEIR, PRESIDENT, IN THE CHAIR.

### HYSTERIA.

DR. FRANK P. FOSTER read a brief paper upon the above subject, and the following points were noted. The convulsive form of the disease was not considered, because it was believed that it was already sufficiently well understood. Dr. Foster's own observation had brought him to the conclusion that well-marked globus was less frequent than most descriptions of hysteria would lead us to infer, while the reverse was true with reference to pain and syncopal symptoms. The doctor did not refer to seizures of true syncope, but to what might be termed attacks of *abortive syncope*. The prominent phenomena of such cases were as follows: The attacks were liable to come on suddenly, and in the presence of an assemblage of people, as at church, etc. Full loss of consciousness never occurred in the class of cases to which particular reference was made. If the person actually fell, which was a rare occurrence, she always was able to overcome the force sufficiently to call intelligibly for help. The fall might be prevented either entirely or partially by the force of the will. The patient usually complained of a feeling as if her heart was about to stop beating just before the attack. In exceptional cases there was a choreic form of twitching, always feeble, and never a tonic spasm.

In exceptional cases the phenomena were preceded by an aura.

### PATHOLOGY OF HYSTERIA.

The pathology of hysteria had been a subject of considerable dispute. On the one hand it had been ascribed to the uterus entirely, and on the other it had been regarded as exclusively of neurotic origin. It was thought that probably the truth was between the gynecologists and the neurologists. Dr. Foster regarded hysteria as an abnormal condition of the nervous system in one or more parts, either inherited or acquired. The reason for its occurrence among females almost exclusively was because they had less physiological, and, in many instances, less volitional resistance than males.

Hysteria was more apt to be developed by slighter

than by severer disease, and that disease was usually in the pelvic organs.

Well-marked hysterical symptoms, however, were sometimes relieved by emptying a distended colon; hence the conclusion that hysterical phenomena did not always depend upon uterine disease. Again, under the influence of some unusual stimulation the patient might make such an extraordinary exertion of the will as would enable her to overcome the symptoms.

### TREATMENT OF HYSTERIA.

It was believed to be of the greatest importance to impress upon the mind of the patient the idea that there was no actual stigma attached to her illness. The patient's general nutrition should receive careful attention. Hysteria was not regarded as a disease which was in any way associated with luxurious living, for it was more prevalent among the poorer classes than among the rich. Hysterical patients should take nutritious food liberally, but only in such quantities as could be readily cared for by the stomach.

Alcohol was thought to be beneficial in one period or another during the course of the affection. It should not be given in doses sufficient to produce flushing of the face, etc. Cod-liver oil was serviceable. Arsenic was regarded as the most beneficial of drugs that could be employed in the treatment of this affection. For overcoming pain, electricity was mentioned as a most useful agent. The galvanic current was believed to be more efficient than the faradic. In the doctor's experience pressure over the ovaries did not produce any special benefit.

With reference to the question of marriage, it was thought that the cases were exceedingly few in which such advice was judicious. For if there was uterine disease present it was liable to be made worse instead of better by marriage; and with reference to the question of benefit following the gratification of sexual desire, it was believed that it had no foundation in fact.

DR. PEASLEE remarked that he agreed with the writer of the paper in the statement that the pathology of hysteria was not well understood. He was of the opinion, however, that in the present state of gynecology we had a right to believe that if one organ or set of organs were responsible more than any other for hysterical symptoms, those organs were the ovaries. With regard to the phenomena of hysteria, it was well known that hysterical symptoms were developed in the male such as could not be distinguished from those manifested by the female. Again, the exclusive view that hysteria always depended upon the uterus or ovaries was not correct, because the phenomena of the disease might be developed in girls before puberty, and also in boys. If, however, the subject was confined to women, and to women between the ages of fifteen and forty-five—hysteria was not often met with before or after the cessation of menstruation—it was believed that the ovaries were responsible almost always, and the uterus almost never. In other words, it was safe to say, as a general proposition, that hysteria was always ovarian and never uterine. But it was to be remarked that it was not the grave affections of the ovaries which produced hysterical symptoms; the disease of the ovaries was always of the slighter degree. Acute inflammation of the ovary did not produce hysteria, but congestion of the ovary produced it constantly in a certain class of women.

Here, again, we were obliged to make a restriction, for there were certain women who never had hysteria under any circumstances. The disease, therefore, was

restricted very nearly to that class of women who had what might be called the "ovarian temperament," and it occurred with the slightest degrees of ovarian trouble. In that class of females the slight derangement incident to congestion of the ovaries usually gave rise to an explosion of hysteria; but if the same woman should have acute inflammation of the ovaries, one or both, there was no more hysteria until they got better, when the hysteria would probably return. Hysteria, then, was a symptom produced by congestion, or by some minor degree of disturbance of the ovary. Again, if the woman who was inclined to be hysterical became pregnant, there was usually no hysterical manifestations during the last half of the term. That was true as a general proposition, but there were exceptions. Therefore, when we came to the treatment of hysteria, our attention should be directed to the ovaries more especially than to the uterus.

With reference to telling the woman precisely what was the matter with her, if we had to deal with a patient who had suffered from ovarian irritation for a long time, and had been educated wrongly upon the subject of hysteria; that is, had been led to believe that it was about the most discreditable thing that could happen to have an attack, if such a woman was told exactly what her ailment was, the effect would probably be to make her an enemy for life, and at the same time, in all probability, to cure her of her hysteria. Dr. Peaslee had cured about ten cases in that manner, but they were chronic cases, and the women understood perfectly well their own condition.

In ordinary cases it was proper to tell the woman kindly that she was hysterical, that there was a cause for it, that the best thing possible would be done with a view to its complete removal, and thus endeavor to remove the source of the disagreeable symptoms.

Dr. Peaslee would not advise a woman to marry with reference to the gratification of sexual excitement; but it was probable that if a woman became married her surroundings and occupation would be changed, and her attention would be drawn from herself. There were cases in which he would advise a delay of marriage; such cases, for example, as those in which chronic congestion of the ovaries existed.

But there was another question to be considered with reference to marriage: if the woman's ovaries were not so injured but that conception might occur, marriage might be beneficial. For in that way a rest of nearly two years could be secured for the ovaries. In certain cases, therefore, marriage might be of the utmost importance, and, if there was no objection, should be recommended.

Dr. WEIR inquired of Dr. Gibney if he had seen hysteria associated with diseases of the joints.

Dr. GIBNEY replied that he had, and especially in connection with knee-joint disease occurring in girls.

Dr. WEIR remarked that Dr. Gibney's experience was a confirmation of his own; that he had quite frequently seen hysterical symptoms in connection with joint diseases occurring in women, and at the same time associated with more or less ovarian irritation. Hysterical phenomena might also occur in men who suffered from joint disease.

Dr. PEASLEE inquired with reference to the joints which were most commonly affected when hysterical symptoms were developed.

Dr. WEIR replied that he had seen it most frequently in connection with disease of the knee and ankle-joints, and that he had usually succeeded in controlling the symptoms by exercising his own will-power over the patient; supplementing such influence, of

course, by a more or less general tonic treatment, and also by local treatment.

A vote of thanks was extended to Dr. Foster for his paper, and the Association adjourned.

## NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, January 7, 1878.*

Dr. E. C. SEGUIN, PRESIDENT, IN THE CHAIR.

### PECULIAR MARKINGS OF MEDULLATED NERVE-FIBRES.

Dr. J. C. SHAW exhibited prepared specimens of nerve-fibres from the frog, which showed peculiar oblique, sharp-edged, feathery markings in the myeline. Dr. Shaw regarded them as entirely artificial, and independent of the constrictions of Ranvier. They were believed to be artificial because the markings were not always in the same direction as Ranvier's constrictions, and because the markings were not always of the same character; in some instances they were much more sharply defined than in others. His method of preparation was as follows:—Remove the nerve as rapidly as possible from a frog or dog, place it in a 1 per cent. solution of hyperosmic acid for twenty minutes; then wash carefully, and afterwards tease small portions in glycerine.

Dr. SEGUIN inquired whether the freshness of the nerve-fibre, or the species of animal, in any way influenced the appearance of these markings?

Dr. SHAW replied that he had examined nerves removed from various animals, and that the markings had been seen in each instance with the same facility. He had also made examinations of nerves while *in situ*, but had found that if the nerve was removed rapidly, the fissures or markings showed as distinctly as when the nerve was attached to the body of the animal.

In reply to a question by Dr. SPITZGA, Dr. Shaw remarked that he believed the markings or fissures were due to the astringent effect of the osmic acid upon the myeline as it coagulates.

Dr. SESSLE had observed these markings upon nerve-fibres, and regarded Ranvier's constrictions as artificial, and these as natural. According to his observation, the markings were seen better in the fresh than in other nerves. His examinations were made in aqueous humor and only slightly teasing the nerve. He regarded these oblique markings as part of the lymphatic spaces about nerves, and had seen the formation of Ranvier's constrictions by a gradual disappearance of the sharp corners of the outlines of the fissures.

Dr. SEGUIN inquired of Dr. Sessle how he would account for the regular distances at which Ranvier's constrictions were situated, in proportion to the size of the animal, if they were artificial?

Dr. SESSLE replied that the distance between the breaks might be farther in human nerves than in nerves taken from the lower animals, consequently the constrictions would be unequally distant in different animals.

Dr. SHAW remarked that the fissures or markings were at a varying distance from each other in different specimens from the same animal.

Dr. SEGUIN had teased in serum the extremity of a nerve still attached to the body of a frog, and had always found the constrictions of Ranvier present, but had not always seen the oblique, feathery markings under consideration.

### A CASE ILLUSTRATING POINTS IN THE HISTORY OF TRAUMATIC FACIAL PARALYSIS, AND ALSO BEARING UPON THE PATHOLOGY OF MÉNIÈRE'S DISEASE.

Dr. SEGUIN presented a patient and read the history of the case as reported in the *MEDICAL RECORD* for



Sept. 2, 1876, p. 586—"Neurosis of Internal Ear from Chronic Suppuration of Middle Ear." Judging from the size of the portion of bone and the locality from which it was removed, it was believed to be altogether probable that there was laceration of the *portio dura*. On the other hand, it seemed almost incomprehensible that so large a nerve as the facial should recover its function when once destroyed. But in this boy, after a lapse of less than one year after the escape of the bones (the cochlea and the semicircular canals), and in less than two years after the beginning of the facial paralysis, there was the beginning of pretty good recovery. The case also threw some doubt upon the accepted pathology of Ménière's disease, viz., impairment of the function of the semicircular canals.

Again, it threw some doubt upon the theory that the integrity of the semicircular canals was necessary to the maintenance of the proper equilibrium of the body.

Remarks were made by Drs. Putnam-Jacobi, Spitzga, Seguin, and others.

#### TROPHIC DISTURBANCES IN INSANITY.

DR. JAMES G. KIERNAN read a paper upon the above subject, in which he considered a number of trophic disturbances, such as hematoma of the ear, of the intestines, etc., discoloration of the skin, condition of the hair, enlargement of the thyroid gland, arthropathies, etc.

#### NEGATIVE RESULTS FROM ADMINISTERING BROMIDE OF POTASSIUM TO THE INSANE.

In the course of his paper, Dr. Kiernan incidentally remarked that he had given as high as *half an ounce* of bromide of potassium daily to insane patients without producing any noticeable effect, either sedative or in the way of producing acne.

DR. SPITZGA did not regard the electrical condition of the hair in the insane as a trophic disturbance, but that it was due rather to the action of the *arrectores pili*.

The paper was discussed by Drs. Seguin, Putnam-Jacobi, Spitzga, Sessle, and others.

The Society then adjourned.

### MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, January 28, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### MEMORIAL OF DR. E. R. PEASLEE.

DR. T. ADDIS EMMET read a memorial upon the late Dr. E. R. Peaslee, the skilful physician and surgeon, the learned and conscientious man. Dr. Peaslee had died in consequence of overwork, the very thing against which his warning voice was heard only a few weeks previous, when speaking of the death of the late Dr. A. B. Crosby.

#### MEMORIAL OF DR. JOS. WORSTER.

DR. SALVATORE CARO read a memorial upon the late Dr. Joseph Worster, in which a fitting tribute was paid to the deceased. The memorial was accompanied by resolutions, which were unanimously adopted by the Society.

#### THE MARTYRS OF FERNANDINA.

DR. J. A. WYETH read a memorial of Dr. Preston Welford, of Fredericksburgh, Va., and Dr. J. C. Herndon, of Savannah, Ga., who responded to the call for aid, and lost their lives in the epidemic of yellow fever at Fernandina, Fla., in 1877.

#### CERTIFICATES OF MEMBERSHIP.

It was voted, on recommendation of the Comitua Minora, to grant certificates of membership to Drs. Julius Scheider, M. J. De Rosset, M. Donnelly, J. H. Gunning, D. Bryson Delavan, J. W. Hupfield, W. K. Newton, E. C. Seguin, Montello Cristoforo, R. M. Fuller, N. E. Crampton, R. A. Caldwell, J. Phillips, and Gustave Minnaillo.

The paper of the evening was read by Dr. J. W. S. ARNOLD, and entitled:

"An experimental inquiry into the muscular element of the first sound of the heart."

## Correspondence.

### "HOW TO SUPPRESS QUACKERY."

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I wish to add an endorsement to certain practical suggestions, in the letter of Dr. G. M. Schweig in the RECORD of Jan. 19th, concerning the need which exists of furnishing to the community some authoritative information about the standing of its medical men.

While there is, without doubt, an inherent tendency toward quackery among people generally, which no amount of education can wholly overcome, yet unquestionably irregular and unqualified practitioners are often employed, only because the public has no ready means of distinguishing them from physicians in good standing.

I have met with cases to illustrate this over and over again, as has probably every one in active practice.

We, as physicians, are, from association and frequent discussion, so familiar with the more important points of medical ethics, like this of advertising, that I suspect we oftentimes do not realize how little they are understood, outside of the profession, even among well-informed people.

I had this brought forcibly to my mind during an after-dinner conversation some time since, in this wise.

Some medical topic was under discussion, and in speaking of it, I casually alluded to the fact, which I supposed was generally understood, that in New York and other cities in this country, if a doctor advertised himself in a newspaper, it was *prima facie* evidence that he was not a regular physician.

There were five or six gentlemen present, all of whom were above the average in culture and intelligence, but to my surprise only one of the number was aware that there was such a rule, and there was decided interest taken in my reiterated statement that such was certainly the case.

It seems to me, then, that if people of education can know so little of the subject, there must be a lack of information throughout the community, which we owe it to ourselves and to our profession to do away with.

As to the best means of effecting this, there will probably be differences of opinion.

The essential point seems to be, that in a city like New York, for example, a standing notice should be published in the leading newspapers, by authority of the County Medical Society, stating, in substance, 1st, That no physician in good standing advertises himself in a newspaper, or in any other manner, it being considered derogatory to self-respect, and a violation of the code of medical ethics. 2d (as is suggested by Dr. Schweig), That the Medical Register, contain-

ing a list of all New York physicians in regular standing, can be seen at any prominent drug store.

There are so many objections to the publication of a list of approved advertisements, as recommended by Dr. S., that I cannot believe that the proposal will find general favor, and it appears to me unnecessary to the object in view—that is, to furnish the public with a ready means of discriminating between regular physicians and quacks.

I remain very truly yours,

G. W. MURDOCK, M.D.

COLD SPRING, N. Y., January, 1878.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I read with surprise in your issue of Feb. 2d a communication modestly signed "Reformer." As a mere attempt to ventilate sarcasm, the article in question may or may not be a success; of this I will leave others to judge. As an attempt, however, to ridicule what is really a most important matter, that should, whether *pro* or *con*, be only seriously argued, it is, as I shall show, signally unsuccessful. I should not have noticed it at all, were it not calculated to mislead some who, perhaps, have given my own communication but a superficial perusal. To be brief, "Reformer" makes statements that are entirely fanciful and utterly at variance with the measures I advocate. A reference to my first communication will show that I distinctly stated that advertisements in the case of the general practitioner should contain no more than is on the business card of most physicians, *i.e.*, name, address, hours. In the case of the specialist, the simple addition of his specialty, *without any special inducements*. As it was, moreover, my suggestion that the entire matter should be under control and supervision of the County Medical Society, the possibilities held out by "Reformer" are simply an implied doubt of the capacity or willingness of that organization to keep advertisements within proper bounds.

I had thought, Mr. Editor, that I had made my meaning clear enough in my former letter. As it is, I am always cheerfully ready to make things, if possible, even more intelligible, although I believe a careful reading of my letter ought to leave nothing to explain.

GEO. M. SCHWEIG, M.D.

PROPRIETARY MEDICINES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Will you favor me with an opportunity to correct a mistake of one of the gentlemen of the N. Y. State Society in a discussion which is related upon page 78 (third paragraph, first column), No. 377, issue of Jan. 26, 1878, of THE MEDICAL RECORD?

Dr. Squibb is in error about "*bromo-chloralum*" ever having been recommended or even mentioned in a paper on the treatment of diphtheria read before the State Society two years ago.

I can speak with absolute certainty that, except as to the trade name, as published in the drug market, *bromo-chloralum* is entirely unknown to the author of the paper alluded to by Dr. Squibb. For the first time in two years Dr. Squibb has inadvertently betrayed the error under which he has been laboring with regard to the pharmaceutical preparation which really was approved in that paper.

GEO. BAYLES, M.D.

37 W. 48TH ST., NEW YORK CITY, Jan. 26, 1878.

THE HOSPITAL STEWARDS, U. S. ARMY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Permit me to thank you on behalf of the Hospital Stewards of the army who are specially interested in the "proposition" to which you so ably, justly, and accurately allude in your issue of January 5th. The stewards owe a debt of gratitude to you for your defence of their cause.

I would beg leave to say, through your favor, that, as we do not wish that there should be any uncertainty about the definition of rank, an *amended* "proposition" has been submitted to the higher authorities, asking that clause 2 read: "1st Class Medical Steward, U. S. A., with rank of *Staff* Sergeant-Major, U. S. Army, but to take place next below the Post or Battalion Sergeant-Major at reviews, inspections, or parades of troops" instead of "Regimental" Sergeant-Major. Trusting you will pardon my troubling you thus, I remain, sir, very respectfully,

Your obedient servant,

HOSPITAL STEWARD, U. S. A.

ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 27 to February 2, 1878.*

WATERS, W. E., Captain and Asst. Surgeon. Assigned to duty as Post Surgeon at San Antonio, Texas, and as Attending Surgeon during illness of Asst. Surgeon Taylor. S. O. 17, Dept. of Texas, January 23, 1878.

PAULDING, H. O., 1st Lieut. and Asst. Surgeon. Leave of absence extended three months. S. O. 19, A. G. O., January 26, 1878.

TURRILL, H. S., 1st Lieut. and Asst. Surgeon. Relieved from duty as Post Surgeon at San Antonio, Texas. S. O. 17, C. S., Dept. of Texas.

Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 2, 1878.

| Week Ending           | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-----------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Jan. 26, 1878 . . . . | 4             | 6              | 88             | 1                          | 114      | 94          | 0          |
| Feb. 2, 1878 . . . .  | 0             | 10             | 93             | 5                          | 93       | 80          | 0          |

ALUMNI DINNER OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—The annual dinner of this Association will be held at Delmonico's on Feb. 22, at 7 P. M. F. R. S. Drake, M.D., Secretary.

DR. L. P. YANDELL, SR., OF LOUISVILLE, KY., died Feb. 4, in his seventy-third year.



## Original Communications.

### REPORT OF SIX ADDITIONAL CASES OF STRICTURE OF THE RECTUM.

TWO TREATED BY RECTOTOMY.

By PHILIP S. WALES, M.D.,

MEDICAL INSPECTOR, U. S. NAVY.

IN No. 8 of THE MEDICAL RECORD for 1877, I published an account of two cases of rectal stricture successfully treated by a new mechanism for dilatation. Since that time I have been endeavoring to improve it, and after much delay and difficulty I was fortunate enough to interest Messrs. Tiemann & Co., of New York, in the matter, who, with their well-known skill and ample manufacturing resources, by dint of numerous, patient, and expensive experiments, have succeeded in carrying out my plans admirably.

The dilators now present a beautifully polished surface, which, by reducing friction, increases the facility of introduction and eliminates the unpleasant sensation of dragging caused by a rough instrument.

Although devised at first for the treatment of stricture, I soon recognized the advantages of the instrument in intestinal catheterism for other forms of abdominal disease, and have already used it hundreds of times, attaining a height of thirty-two inches in the colon.

If the statements of Dr. Edward Krull, of Güstrow,\* are confirmed by future experience, the instrument will find a practical application in irrigation of the bowels. He uses water in this way for catarrhal jaundice, and declares that success has crowned the treatment when other means have failed. In one case the patient had suffered nearly a year and a half. He first employed water at the temperature of 59° Fah., and gradually increased the heat with successive injections to about 73° Fah. The water was thrown in slowly in as large a quantity as could be held, and the longer it is retained the better. The operation was repeated daily, and in the majority of his cases the biliary secretion was re-established, with great relief to the patient, after the second injection, rarely more than seven being required in any case. He believes the improvement to be due to the reflex influence of increased peristalsis of the bowels upon the liver and gall-bladder. Again, Professor Mosler has been advocating a plan of treating tape-worm, which has been attended with remarkable success.† Its chief characteristic is the injection of large quantities of warm water into the colon, after the administration of the anthelmintic. The diet is first regulated, food being given which is supposed to be distasteful to the tape-worm—bilberry tea, herrings, sour cucumbers, salt meats. The intestine having been emptied, as far as possible, by laxatives, a dose of the extract of pomegranate bark, prepared from the fresh bark, is administered, and then a large quantity of warm water is injected into the rectum. The theory is that the worm, previously brought down into the colon, is prevented by the water from attaching itself to the wall, and is brought away by the liquid in its escape. It is asserted that in every case in which this treatment was adopted the head of the worm was removed. I employed with success the plan of injecting a solution of carbolic acid and salt high in the colon

after a preliminary administration of oil of turpentine, in the case of a gentleman who had been troubled for months with tape-worm. Several of the most esteemed vermicides, as kameela, brayera, male fern, and pomegranate, had failed in bringing the head, although proglottides were expelled after each administration of these remedies.

Many other instances of the utility of intestinal catheterism and irrigation might be cited, as in intussusception, impaction of feces, intestinal inflammation and ulceration, atony of the bowels, uterine diseases, etc. The wider the field of application, and the greater the frequency of use of any new mechanism, the greater is the necessity of reducing its possible harmfulness in hands little skilled in surgical manipulations. In my opinion this advantage has been secured in this instrument as far as it is possible, and I cannot conceive that any damage can be done except by the most blamable violence, even when the walls of the intestine are preternaturally soft. That the ordinary contrivances are not free from danger, such as Bell's explorer, O'Beirne's tube, and the various forms of bougies and sounds made of metal, wax, and other materials, is shown by the records of surgical science. The intestinal walls have been repeatedly perforated by them, both in cases where there was no obstruction and in those in which there was.

Sir B. C. Brodie\* asserts that he knew seven or eight cases in which this frightful accident occurred, and the patients died in consequence. I will here append, in further illustration of the danger of O'Beirne's tube, the following case, related to me by a professional friend:

CASE III.—Mrs. H., aged 65, a large, fleshy woman, called me to see her late in November, 1875. She stated that she had passed nothing from her bowels for four or five days, previously to which time she had had several loose and very copious evacuations. No pain; pulse quiet and regular. The abdomen was very largely distended and tympanitic, and the colon could be easily felt in its entire course till it dropped into the pelvis. Only slight tenderness on pressure. The symptoms continued for five or six days without other changes than a gradual weakness of the vital powers. No treatment, either by medicine or the frequent use of injections, relieved the obstruction, which, from the absence of any gastric disturbance whatever, as well as of general constitutional disturbance, was diagnosed to be situated low down in the large intestine. Dr. S., in the meantime, saw the case with me, and we determined to introduce O'Beirne's tube as far up the bowel as possible, using injections through this, with the hope of relieving our patient. We passed the tube a considerable distance up the bowel, but were deterred from using the injection, from the fact that no gas escaped from the tube, and on withdrawing it was not stained with any fecal matter.

Mrs. H. gradually sank, and died at 5 o'clock p.m., the next day, by asthenia. A post-mortem, made a few hours after death, showed the rectum bound down over the promontory of the sacrum by a band of false membrane, stretching transversely across the bowel, rendering it impervious from above and below. Just below the constricting band was a rent in the intestine, evidently made by the O'Beirne tube, and accounting quite satisfactorily for the distance to which it had penetrated the day before. Except this band of false membrane there was no effusion of lymph or serum, and the peritoneum was free from any evidence of in-

\* *Berliner Klinische Wochenschrift*, No. 12, 1877.  
† *London Lancet*, September, 1877.

\* Clinical Lecture on Stricture of the Rectum, *London Medical Review*, vol. xvi., p. 30.

inflammation. I would mention that the instrument used was of large size—larger than those that I saw at your office—with an ivory head-piece, and that every caution and gentleness was practised in using it.

Of the next three cases which I am about to relate, the first two originated from inflammation of the intestinal mucous membrane, due, in great part, to repeated attacks of malarial fever; the third, I regard as an instance of congenital stricture of the rectum, few cases of which are recorded. M. Thume reports one in the *Nouvelle Bibliothèque Médicale*, Mai, 1828; and M. Tuffet another of unusual interest in the *Bulletin des Sciences Médicales*, tome VII., p. 160.

CASE IV.—I. D., a physician, aged 42, called upon me, March 6, 1877, complaining of what he believed to be some rectal trouble, and which a professor of surgery had diagnosed stricture of the rectum, and had suggested the operation of dividing the sphincter, introducing the whole hand into the gut, and stretching the contracted bowel with the fingers. The patient courteously furnished me with the following account of himself, from which I make the following extracts: "I told you, in speaking of my case, that I have had chronic diarrhoea for twenty years, or more. Apart from the inconvenience involved, as it is no respecter of time, place, or circumstance, I have regarded this diarrhoea as rather conservative than otherwise: for, except occasional malarial trouble, my health, up to the last year, has been all that I could desire. In this time, more or less pain in the hypogastric region, extending into the left iliac, preceding and during the act of defecation, remaining much longer at stool than usual, and often a gush of liquid feces; the passage of short, flattened pieces, sometimes as many as a dozen, are symptoms which have been increasing month by month. I found, too, that horseback-riding, often the country doctor's only means of getting around to his patients, became extremely painful, and finally had to be given up entirely. During the months of August, September, and October last, a protracted and painfully distressing case of illness in my own family caused me to lose rest at night continuously, and this, added to the fatigue incident to almost daily attention to professional business around the country, greatly reduced my strength, and increased the sufferings complained of. I have mentioned pain as an almost constant symptom. At times it is most severe, frequently causing nervous chill, and always puts me on my back for several hours. Another distressing symptom for the last five or six months is insomnia; I hardly know what it is to get an uninterrupted night's sleep."

I examined this case with my explorer, and found a stricture seven inches from the anus. The dilatation was begun, and improvement was soon manifest, and has continued up to the present time, as will be seen by reference to the following extract from a letter dated November 16th: "I promised you a statement of my case since you commenced treating me last March for stricture of the rectum, with your dilators. It gives me great pleasure to assure you of my conviction that the contraction of the bowel has been relieved. I no longer suffer from that peculiarly distressing pain before and during the act of defecation I have so often described to you. The feeling of weight and oppression in the lower bowels, which rendered any other position than a reclining one disagreeable, and often impossible, has left me, and I can take a fair amount of exercise now, without the irresistible inclination to go to the water-closet."

CASE V.—C. E., aged 28, a baker, was sent to me, June 8, 1877, by Dr. D. H. Hagner, of Washington, to

be treated for rectal disease. The patient related his case clearly, stating that about four or five years ago he had had intermittent fever off and on for several months, and then he became conscious of pain and aching in the sacrum and perineum; his bowels were irregular, there was difficulty in defecation, and the feces were diminished in size. The bladder was irritable, requiring him to micturate frequently during the day and night, and every time he did so there was an irresistible desire to evacuate his bowels also, and *vice versa*. The bladder was carefully examined, and no stricture or stone found; the largest sound slipped in easily, causing not the slightest uneasiness. The rectum was explored first with the finger, the patient being erect, and directed to strain forcibly, while the perineum was pushed up with all the force I could exert, aided by an assistant who seized my elbow. Under the circumstances the bowel was somewhat intussuscepted, and the tip of the finger could reach a ring-like narrowing, which seemed to be situated at least four and a half inches from the sphincter. The explorer was then introduced, and expanded to the diameter of an inch and a half, or thereabouts. It caught above when drawn upon, at the point stated, and showed the stricture to be a narrow one.

The dilators were used three times a week, with manifest benefit; the troubles about the bladder entirely disappeared, and defecation was effected with greater ease. Business called the patient to a distant city, and I have not seen him since.

CASE VI.—Mrs. R., age 28; mother of two children, first came under my notice while laboring under a severe attack of colic, as she imagined, from eating water-melon. She told me that her bowels were always constipated, never acting without taking purgative medicine, and that this state of affairs had begun many years ago. Her abdomen is very large, and her body generally unnaturally adipose. Appetite always good, but was very guarded in matters of diet on account of her bowels. This was about all she knew of herself.

In the attack of colic, I prescribed purgatives, without obtaining any action, and unless I kept her continuously under hypodermic injections, she complained grievously of pain along the course of the colon. I determined to use my long, elastic dilator, and inject warm water. Upon introducing the point of the instrument into the anus, I found it would not pass beyond an inch. My finger soon revealed a narrow cord-like constriction about one inch from the margin of the anus, through which I could press my finger with difficulty, and great pain to the patient. The bowel above seemed to be quite natural and capacious. I suggested the use of the knife, but this was declined; though dilatation was approved of. To relieve her immediately, I passed one of the smaller sizes of the dilators seventeen inches into the rectum, and injected large quantities of warm water until the bowels were freely moved, with immediate relief to all the symptoms.

The following two cases were instances in which the stricture was within reach of the finger, and were treated by incision followed by dilatation in the usual manner:

CASE VII.—C. T. V., a physician, aged 41, consulted me October 20, 1876. He was kind enough to keep the record of his own case, and furnished me with the following account a year after the operation:

"I am of a nervo-bilious temperament, dark complexion, measure five feet ten and three-quarter inches in height, and weigh one hundred and twenty pounds. My habits are good. I suffered with acute hepatitis in



1857. The liver and gastro-enteric canal were for months after this very irregular in their functions; my digestion was feeble and sluggish, and I was a victim to severe colics, particularly during the spring and fall. This condition of things demanded the most rigid dietary. During this time I noticed a great development in the veins of the lower extremities and surface of the abdomen; hemorrhoidal tumors formed around the anus, which frequently bled. Mental depression was now a prominent feature in the case. I became emaciated, my pulse beat 65 in the erect posture, and I experienced a sensation of weight in the rectum, pain in the back, cold extremities, borborygmi, eructations, heaviness in the occipital region, aphthous eruption of the buccal mucous membrane, pain in the cardiac region, and at times palpitation. There was a constant mucous discharge from the rectum.

"In the month of May, 1876, I had a very severe attack of hemorrhoids, and in a few weeks afterwards a tumor was formed within the rectum, just above the sphincter. The pain was excruciating, and lasted a whole night; but by the constant application of hot water the pain finally ceased, and a purulent discharge made its appearance through the anus, the tumor disappearing. About a month later, a painful swelling was felt on the right side of the anus, which also broke and formed a fistula as the former had done. The aperture of the one was posterior, of the other lateral. There was a profuse discharge of pus, so that my health was completely shattered. At this point I visited Washington, and consulted you."

I made a physical examination of the patient and found a stricture three inches from the anal orifice, horizontal, entirely surrounding the bowel, with a rounded and cord-like margin about one-quarter of an inch thick. The aperture admitted the point of the index-finger to the distal end of the second phalanx, and was situated more to the sacral side of the obstruction. I traced the lateral fistulous canal, whose orifice was well out upon the nates, above the stricture, so that when the point of the director was at the constriction, the handle was in contact with the skin. The second fistulous canal terminated in the first. The tissues of the perineum were hard and brawny, and the skin very red. There was always more or less discharge of blood and pus with the feces, and tenesmus was also present.

I performed rectotomy, cutting the stricture first laterally, at the same time laying open the fistulous canal, and then I incised the ring posteriorly so that the bowel was completely freed of all obstruction. A few ounces of blood were lost. I inserted a fine sponge to prevent further bleeding and put the patient to bed, giving him a good dose of opium. Several hours later, hemorrhage came from the cut below the sponge, but it was promptly stopped by stuffing in some styptic cotton. Three days later the dressings were removed and the bowels syringed with a dilute solution of carbolic acid. In December the patient left for his home in New Jersey, and was under the care of a professional friend, who continued the use of appropriate dressings. The patient continued to improve, and soon resumed his practice. In a letter written to me recently he says: "It is now one year since the operation was performed, and only a small aperture remains, which is healing slowly but surely, and my health is re-established."

CASE VIII.—A. C., aged 37, came under my care September 23, 1877. The history of the case runs thus: In youth was healthy, but not vigorous. His father, who is yet alive, possesses an active, hardy

constitution, but has complained of gastro-intestinal troubles for years; the same remarks are applicable to a younger brother. Members of his family have been noted for longevity.

In 1861, had stricture of the urethra arising from a neglected gleet, and from time to time, until 1863, had dull pain about the anus. Contracted syphilis in 1865, chancre and bubo; never had any condylomata or other local changes around the fundament during this time. Alteration in the shape of the feces, which were flattened or shaped more like the blade of a razor, gastric irritability, rumbling of the stomach, especially during the night, and early morning; a morbid craving for food and a feeling of exhaustion were prominent features of his case during 1869-70.

In 1871, a node developed upon his left shin, suffered from nocturnal pains, and was a frequent victim of diarrhœa. For these troubles he underwent mercurial treatment. In the following year he could not retain fecal matter; the moment the desire came on he was compelled to rush for the closet. His health became now much deteriorated; was attacked by a sharp rectal hemorrhage in 1874, which was checked by astringents; felt more or less pain constantly over the sacrum during this year. Passed pus and mucus like the white of an egg, and the slightest imprudence in diet, or exposure to atmospheric vicissitudes, brought on diarrhœa. This state of things has continued up to the present time, and in addition is greatly distressed by tenesmus. Last May, after eating a snipe, a small bone caught in the rectum, producing severe diarrhœa, and purulent discharge mixed with blood. He told me he had been lately under treatment for rectal ulceration by caustic.

I examined the rectum after having largely dilated it with a duck-bill speculum. A stricture was clearly visible two and a half inches from the anus, placed obliquely across the bowel, so that upon its vesical side the distance was about three inches. The aperture was closed, but admitted the point of the index-finger, though with pain to the patient. The bowel above was of ample capacity as far as could be reached. The obstruction was about one-quarter of an inch thick, and tightly stretched, its aperture ovoid, eccentric, with the broad end towards the bladder. Its edges were rounded, intensely red, and granular. On passing the finger around the aperture, the posterior and narrow border felt hard and callous, seemingly tied down to the subjacent stratum, while the anterior border was broad, tense, and dilatable. It struck me that at the former spot there had been an ancient ulcer.

Situated at the front part of the anus was a large muco-cutaneous pile; posteriorly near the sphincter were two large condylomata, and on the same aspect internally, a fissure. The entire skin of the perineum and nates adjacent was of a deep red color. His general condition is bad, being thin, weak, sallow, and mentally depressed. His abdomen is much distended, but not tender; is tormented by alternating constipation and diarrhœa, with constant tenesmus; purulent matter and mucus are constantly escaping from the bowel, and keep the regions around anus always moist.

The operation of rectotomy was performed with a specially constructed knife. The stricture was divided freely through its anterior border, the tissues cutting with a creaking noise, distinctly audible to the assistants standing near. The incision gaped widely, forming an ellipse, and at the same time the stricture seemed to instantly vanish instead of leaving flaps as had been expected, the intention having been formed to clip them off. The growths around the anus were all removed.

by excision, and the sphincter was cut through posteriorly in the line of the fissure and the posterior angle of the stricture. Very little bleeding occurred; the rectum was dressed with a sponge thrust beyond the line of the incision, and opium was freely given. Ten hours after the operation hemorrhage occurred, by the sponge having been forced out of the bowel. It was speedily checked by replacing the sponge and packing the bowel below with styptic cotton. The dressings remained in place for forty-eight hours, when an irresistible desire to evacuate the bowels came on, which induced the patient to remove the sponge himself by pulling on the thread attached to it. On the third day there was an enormous quantity of fecal matter passed, which greatly alarmed the patient, who feared, he said, that the entire contents of the abdomen were issuing. He continued to improve; and on the tenth day I introduced one of my largest elastic dilators fifteen inches into the bowel, permitting it to remain twenty minutes, and before withdrawing it, threw in a pint of water dashed with carbolic acid. The finger detected a hard lump at the side of the anterior incision, evidently caused by lymph infiltrating the submucous connective tissue.

The patient is gaining in strength, and time will be necessary for the cure of the changes consecutive to the stricture.

One of the most interesting questions presented by rectal strictures is that of the manner in which they are formed. The explanations offered are too varied to be introduced separately, but the accounts found in special treatises on the rectum, and in the more recent ponderous compilations on general surgery, may be condensed in these statements. It is attributed in the majority of cases to inflammation arising from various causes. Congestion takes place in all the tunics of the bowel, plastic matter is effused into the meshes of the tissues, concretes, organizes, and contracts, diminishing the calibre of the intestine. If the morbid action is restricted to one side of the bowel, or to one of the free edges of the mucous folds, it becomes enlarged, and forms a sort of valve, bridle, or eccentric contraction, according to the form and direction of the inflamed tissue. At other times the inflammation leads to atrophy of a section of the bowel, so that its size may be diminished to that of an ordinary lead-pencil. We are further told that the several forms of stricture also arise from cicatrized ulcerations that have involved the mucous membrane in certain directions and extent.

Howship discourses in this wise of the manner in which stricture is formed:

"When a small mass of hardened feces in the rectum is situated low down, with another above it, the part of the bowel between the two may have a tendency to contract itself in the vacant space. Should the irritation incident to loaded bowels cause the parts thus circumstanced to inflame, effusion taking place between the coats of the intestine will inevitably convert its temporary form into a permanent condition. The subsequent escape of the feces is attended with violent pain, and the contracted part will always be irritable, because much exposed to annoyance from the perpetual transit of the contained matter. In this way I believe a sort of transverse valve or membrane is sometimes formed with a central opening, inducing most distressing consequences." \*

In a note communicated to the Société Anatomique, M. Broca,† in speaking of a case, stated that a sort of

plastic exudation in the form of two bands (trainée) embraced the rectum like a ring, and produced a valvular stricture. There is thus a new tunic superadded to the normal walls, and he thinks that the majority of valvular strictures are produced by a similar or analogous mechanism.

In another communication Dr. L. Aug. Mercier \* affirms that the majority of rectal strictures are the product of an inflammation which has obliterated the capillary net-work of the bowel, principally of its muscular layer, by which it is transformed gradually into fibrous tissue.

The above explanations may be sufficient to account for certain cases of rectal strictures, but by no means all of them, nor, in my opinion, even of a majority. I believe the mechanism to be very simple, and that most strictures seated in the rectum are caused by a drawing in of the natural folds, or of circular strips when there are no folds of the mucous membrane, by the contraction of cicatricial tissue, repairing ulceration arising from either specific or common causes. In this way any loss of substance of the intestinal tunics, however small or occurring at any point in the walls, may produce a crescentic or diaphragmatic stricture during the healing process. In other words, the stricture in great part consists of the normal tissues displaced by contracting cicatrices. The anatomical relation of the mucous membrane with the muscular layer, connected, as they are, by loose connective tissue, favors the formation of stricture in this manner. In typhoid fever ulceration of the small intestines is common enough, and yet we never meet with stricture from this cause, as the mucous membrane is too closely connected with the subjacent coat to permit any displacement, so that the cicatrix formed from an ulcer located here is thin, shining, and flat. I regard the above view of the formation of rectal stricture as of considerable practical importance in relation to the operation of incision.

In Case VIII., the ulceration was originally located in the posterior wall of the rectum, marked by the limited area of hardened and fixed tissue that could be covered by the tip of the index-finger, the balance of the stricture being normal mucous membrane tightly stretched into the lumen of the bowel; this is the earliest stage of the stricture. Later, as the disease slowly advances, the passage of the feces is gradually obstructed, causing more or less inflammation, which will occasion thickening and hardening of the displaced mucous fold and of the surrounding tissues. This advanced stage is represented by Case VII.

Were stricture cases clearly made out at an early period, before much change has been occasioned in the intestine walls, I believe that many of them might be submitted to the knife with the happiest result, no fear being felt that union of the edges of the wound would occur, inasmuch as they will widely gap from the resiliency of the divided tissue. In most of these cases also diarrhoeal and purulent discharges are constantly passing through the rectum, and would militate strongly against any form of repair taking place in the wound, except that by granulation.

From this point of view, the advice of certain authors to thrust in a large bougie, and retain it there for some time, after rectotomy, would seem to be altogether unnecessary, if not positively injurious.

I prefer to wait several days until the wound begins to cicatrize, at which time contraction of the newly formed tissue can only occur. The chances of success of rectotomy will be greatly promoted by prepar-

\* Practical Observations on the Diseases of the Lower Intestines and Anus, 3d ed., London, 1824, p. 7.

† Bulletin de la Société Anatomique de Paris, 1852-3.

\* Gazette Médicale de Paris, t. vii., p. 262.



ing the patient by three or four days of preliminary treatment, by the administration of laxatives and the daily introduction of one of the small rubber dilators far up the bowel, through which carbolized water may be injected in sufficient quantities to clean the intestine as thoroughly as can be done. During these few days the patient should be supported on fluid food, milk, beef-tea, and egg flip. When the operation is completed, opium may be given freely to relieve pain and quiet the bowels. The local dressings are of much importance—to prevent any of the intestinal excretions coming in contact with the wound, until the gap made with the knife and the surrounding connective tissue have become infiltrated up with lymph, which will occur in forty-eight hours or so, a piece of fine sponge secured to a curved gutta-percha tube opening beyond the sponge, the two together resembling in shape a mushroom, may be thrust into the rectum beyond the incision, and held in place by a tape tied to a waist-band. This contrivance will be, in most cases, easily borne for two or three days, and will give issue to wind, which often originates the desire to evacuate the bowels. It has another great advantage, and it is this, if any bleeding occurs the blood will fill the rectum and appear externally, when styptics may be applied on cotton wool in such quantities as to block up the rectal pouch.

As complications of rectotomy we find enumerated in the books a formidable array; as hemorrhage, fecal extravasation, abscess, fistula, pelvic peritonitis, pelvic cellulitis, peritonitis, and septicæmia. In relation to these dangers the opinions of surgeons have differed greatly. Among the ancients the treatment of rectal disease in general was characterized by the utmost freedom of recourse to the severest surgical processes, if we are to believe that the judgment of Hippocrates either represented or influenced the prevailing practice. He says, "rectum enim intestinum et secans, et resecans, et consuens, et urens, et putrefaciens, etiamsi gravissima hæc esse videantur, nihil læseris." But the fact is, comparatively little was known of the nature, diagnosis, and treatment of the disease until the beginning of the eighteenth century. Without doubt, had stricture, by any accident been discovered in those times, it would have been incised, and, perhaps, many were thus treated, of which we have no record. The earliest case I can find is that reported by Wiseman.\* He gives the history of a man who suffered from perineal abscess resulting in fistula, which was treated by both knife and ligature. As the wounds healed, stricture formed, "about an inch or more within the rectum." Dilatation with tents made of gentian and deer-suet was tried first, without avail. "The bowel being choked up," he says, "our work was the dividing the contracted callus, which made the stricture, which we did by an instrument made for the purpose, with which, without hurting the intestine, we cut through in several places, making the opening so large that the excrements came away big; and by the injecting of *ol. lubricorum*, cured the wounds in a few days after, and left him at liberty; he not only expelled them well, but also retained them; yet, within this twelve months, twice we have enlarged it, and by the instrument we designed, it may at any time be helped, without hazard of wounding the sound parts near it; but since the last incision of it, it hath continued open, and upon a late search with my finger, I could see nothing of it."

In the above case the obstruction was seated low, and there could have been no doubt as to the judiciousness of the operation performed, as there was neither danger nor difficulty to weigh against the hoped-for advantage of free issue to the faces. The chief points in considering the applicability of the knife to non-malignant rectal stricture are two, its height and its width. The higher it is situated the greater the risk and difficulty of incision, and I am not aware that any case has been recorded in which a stricture beyond the reach of the finger has been so treated. Its situation decides the propriety of rectotomy for many surgeons, as Quain, Mayo, Salmon, Syme, and Bushe,\* and the practice recommended by them is set forth fully by the latter. "When the stricture is near the anus, narrow and firm, the surgeon may hook it down with his finger, and then partially divide it, in two, three, or more points, with a hernial knife."

On the other hand, the dangers of incising strictures located high up, are believed by others to be greatly exaggerated; and ranged on this side are Howship, Copeland, and Calvert.† The latter of whom speaks in very decided terms, as follows: "When the stricture consists of a narrow indurated septum within reach of the finger, and the bougie either does not agree, or is a long time in effecting the dilatation, the best and shortest method is to divide it in the direction of the sacrum, and with a probe-pointed bistoury . . . it is not attended with any danger, either from inflammation or hemorrhage; . . . the division may be performed in one or more directions; but sometimes it answers the purpose equally, and is safer to divide the stricture towards the sacrum only."

As to the width of the stricture, it need hardly be remarked that the narrower it is, the more favorable for incision. There certainly is great variance in this respect, but in the greater number of cases the width will scarcely exceed half an inch, and in numerous instances the stricture is simply a bridle occupying a part of the circumferences of the bowel, or extending quite around under the form of a diaphragm with central aperture. Wide obstructions may be more advantageously treated by dilatation.

The incision may be single or multiple, and made at any part of the intestinal wall, though usually it is recommended as safer to incise posteriorly in the median line, and rather by several nicks at different parts than by one cut. With proper precautions, there is no doubt but that the rectotomy may be safely performed with the very best results at any part of the bowel within reach of the finger, and I am even sanguine that even strictures higher up may become manageable in the same way, with properly constructed instruments.

424 EAST CAPITOL ST., WASHINGTON.

DR. PIERRE BERTHIER, Physician-in-chief to the Lunatic Asylum at Bicêtre, died on December 20th. From the very commencement of his medical studies Dr. Berthier's chief attention was directed to the subject of insanity, and he soon attained an enviable position in that specialty. He was the author of numerous valuable papers on insanity and its complicating affections.

\* A Treatise on the Malformations, Injuries, and Diseases of the Rectum and Anus. N. Y., 1857.

† Practical Treatise on Hemorrhoids or Piles, Strictures, and other Important Diseases of the Urethra and Rectum. London, 1824.

\* Several Chirurgical Treatises. By Richard Wiseman. Folio. London, 1676, p. 237.

## CREMATION PRACTICALLY CONSIDERED.\*

By CH. SMART,

CAPTAIN AND ASSISTANT SURGEON, U. S. ARMY.

IN July, 1877, the writer was called in by his friend, Dr. John F. Hamilton, of Salt Lake City, to assist in conducting the cremation of the body of Dr. Charles F. Winslow.

Immediately on the completion of the process he proposed putting on record the points connected with it, but other matters occurring prevented him from carrying out the intention until the cremation seemed to have become too old a story to recount in the columns of our current literature.

Recently, however, the idea of reporting the case recurred with the force of a neglected duty, for though the cremation is a thing of the past, the practical questions involved in it are as new now as when they demanded solution at the hands of Dr. Hamilton himself, or as they would be to-morrow were some professional brother charged with the superintendence of a similar case.

It is not proposed to discuss the cremation *versus* burial question. The profession already knows most that can be said on the subject in its sanitary, economic, medico-legal, and sentimental aspects. But if the present writer can predicate of the profession as a whole from his acquaintance with individuals, it knows but little, at least in this country, of cremation from a practical point of view. And yet, as in this case, so in the next, medical men will no doubt be called upon to superintend the process. It is true cremations are not common with us, so the call to superintend one may be long in coming, but it is liable to come any day, and having come, it brings many anxieties which are by no means soothed by a recognition of the fact that, however private may be the arrangements, there are certain to be present many curious and critical eyes to oversee the process.

The report of this case may, therefore, be of use at some future day as a practical guide; while at the present it can stand as a contribution to the history in this country of the modern revival of cremation.

Dr. Charles Winslow, the subject of this cremation, was a resident of Salt Lake City, Utah, for several years before his death, and was considered a very able man, although credited by the public with some eccentricities; that is, he ventured to differ from public opinion on certain questions, and made no secret of the difference.

Among the various provisions of this gentleman's will was one requiring that within forty-eight hours after his death his heart be removed and placed in a preservative solution, and that thereafter his body be cremated in the most convenient manner, and with as little publicity as possible, under the direction of Dr. Hamilton, of Salt Lake City.

One of the executors of the will, Mr. Samuel Woodward, lived in Salt Lake City, the other, Mr. W. C. Pease, in San Francisco, California, while the relatives of the testator dwelt in the Eastern States.

Dr. Winslow died on the 7th of July, of valvular disease of the heart, and on the 9th the thorax was opened, under the direction of the resident executor, and the heart removed and disposed of as required by the deceased. No steps, however, were taken in the

matter of the cremation until after the arrival of the executor from San Francisco.

During this time the body was kept on ice in the sexton's office.

On the arrival of Mr. Pease from San Francisco arrangements were made to carry out the provisions of the will so far as related to the disposition of the body.

A small furnace was planned, which was conceived ought to answer the purpose, but before orders were given for its construction, it was thought advisable to consult some of our mining men, whose practical experience in the smelters might offer some valuable hints. These approved the plan of the furnace, as a furnace (that is, their opinion was not required on its merits as a crematory), but presented the objection that such a construction would require at least ten days of a graduated heat to dry and season it, else it would break down under exposure to an elevated temperature. Coming from practical men this objection carried so great weight that the idea of the special furnace was abandoned as involving too much delay, and an inspection was made of several smelters in the neighborhood of the city with a view to finding a furnace which might be utilized. In the meantime, however, it having been suggested that, although the gradual heating and seasoning of a furnace intended as a permanent working structure was undoubtedly necessary to its permanence, the small cremation furnace might last long enough to perform the work required of it without any such lengthened seasoning.

After some hesitation and discussion this suggestion was acted upon, and a site having been obtained from the city authorities, the furnace was built in the course of a dozen hours and fired up to season it for its work.

A vacant lot in the centre of the city, between the theatre and Brigham Young's residence, was granted for the purpose. This site tended to give greater publicity to the cremation than was desired, inasmuch as the furnace had to be built under the very eyes of the populace; in addition, the local papers, having learned something of the *status quo*, endeavored to keep their readers posted on the matter. Yet, as the cremation was expected to be completed in the course of a few hours, it was hoped that by concealing the hour of the commencement of the process the affair might be an accomplished fact before the public became acquainted with it. The site, also, had the further disadvantage, in case of the evolution of any empyreumatic odors, of being under the nose of the populace, who would, no doubt, be much disposed to sniff the air when they knew what was in progress, and to be favorably or unfavorably impressed, according to the dictum of their olfactories.

After some sixteen hours of gradual heating the furnace was well coaled up, and in two hours more, when thoroughly heated, a hind quarter of veal and some bones, enveloped in a sack, amounting in all to about forty pounds, were thrown in. None of the idlers around the furnace were aware of what was consigned to it, and none discovered any taint in the atmosphere, save that from the coal-smoke when the fire was replenished. At the end of half an hour the soft tissues had disappeared, leaving a mass of incandescent bone, with some dark carbonaceous patches here and there among the crevices. At the end of an hour and five minutes, when the door of the furnace was again opened, the bones were found to break down under the weight of a long iron poker laid gently on them. The result was regarded as satisfactory; for, as one-sixth only of the floor of the furnace

\* Being a report of the cremation of the body of Dr. Charles F. Winslow, which was effected at Salt Lake City, Utah, July 21, 1877, under the superintendence of Dr. John F. Hamilton, surgeon in charge of St. Mark's Hospital, Salt Lake City.



was covered by the experimental tissues, it was supposed that had the remaining five-sixths of the floor been covered in like manner, the cremation of the whole would have taken place in the same length of time. It was therefore determined, as the floor was being cleaned out, to keep up the heat and cremate the body in the evening.

Meanwhile, however, a telegram was received from the relatives of the deceased forbidding the cremation in most positive terms. Full particulars of the provisions of the will relative to this point were telegraphed back by the executors. One of the sons of the testator, Mr. Charles Winslow, of St. Louis, Mo., intimated his intention of coming to Utah, and requested that no action be taken until his arrival, but that the body be embalmed for future burial or cremation, as might be determined on.

The embalment was accomplished on July 13th, by means of alcohol, carbolic acid, and chloride of zinc.

In a few days Mr. Winslow arrived, and having made himself acquainted with all the facts in the case, acquiesced in the action of the executors, and proceeded homewards to represent matters to the other members of the family, and gain their acquiescence to the willed disposition of the body.

In the meantime, while waiting for the removal of all sentimental objections to the cremation, the construction of the furnace which had been built, tried, and approved, had better be described.

Externally it had the appearance of a large brick box—eleven feet long, four wide, and five high—which, in addition to being well cemented, was bound together by long iron bolts and heavy timbers. It consisted of a stone foundation, brick walls, and fire-brick lining. From its upper surface, at either end, there arose a brick chimney about three feet high, on each of which was superimposed a twenty-foot metal smoke-stack; these, of course, being kept in position by strong iron-wire stays.

At the upper half of one end, which might be called the front of the furnace, was a semicircular iron plate, hinged below on its straight edge, and forming the door of the cremation chamber, which chamber was arched transversely in its ceiling, seven feet long, two feet wide, and two feet in height in the centre of the arch. The floor of this chamber, which separated it from the fire-place and flue, was a heavy boiler-iron plate, three-eighths of an inch thick, let into the brick wall of the furnace along its sides, and supported underneath by fire-bricks set on edge, their under edges resting on the floor of the flue.

The fire-place was under the fore part of the iron floor of the cremation chamber, its opening being at the lower and fore part of one of the sides of the brick box, while the flue ran backward under the iron flooring to the rear of the building, where it curved upwards past the rear end of the iron plate and cremation chamber to the brick chimney and smoke-stack, which projected it vertically upward.

So far as the flue has been described, it is evident that the draught would be from the fire-place back under the flooring of the cremation chamber, then upward past its inner or rear wall, and so into the atmosphere through the posterior smoke-stack, communicating heat to the chamber and its contents only through the flooring and end wall, thus making an oven of the said chamber, or rather a retort, as it had an exit pipe in the shape of a smoke-stack at its upper and fore part. Heat so applied would effect the destructive distillation of animal matters, not their oxidation. But the rear wall of the cremation chamber

had an opening in it communicating backward into the flue, and this aperture was guarded by an iron plate which, on being raised or let fall through a transverse slit in the top of the brick box, opened up or shut off the communication between the flue and the chamber. This might be called the perpendicular valve. Again, in the chimney of the flue—the rear chimney, that is—a fissure in its wall admitted the driving home or withdrawal of a horizontal plate or valve, by which communication was cut off or opened up between the flue and the posterior smoke-stack. Thus, by pushing home the latter plate and raising up the former, the smoke, flame, and hot air of the flue, instead of escaping by the rear smoke-stack, would be turned into the chamber, converting it into a reverberatory furnace, in which oxidation of contained material would be accomplished by oxygen in the air, which had passed through the fire and flue and escaped consumption by the fuel used.

The smoke-stack at the fore part of the furnace was thus the real stack of the crematory, that at the other end having been added simply for convenience in clearing the chamber, when required, of its smoke, flame, and heated air.

The essential of a cremation furnace being understood to be a chamber which will furnish at the same time a strong heat and a free supply of air, it is manifest that the construction above described provided only the first of these in perfection, the air supply for the chamber consisting only of the residual oxygen which escaped combination in passing through the fuel. Yet this was presumed to be sufficient for the purpose, and by the trial above recorded the presumption was sustained. In case, however, of delay in the oxidation of the last portions of the carbon, provision was made for an increased influx of air by having on hand a fan wherewith to institute an artificial blast. It was recognized, also, that the iron flooring of the chamber would withdraw from the organized material to be oxidized much of the residual oxygen, by its strong affinity, at a high temperature, for that element. Yet, as the iron flooring was more easily laid than one of fire-clay tiles, it was approved and found to fulfil the requirements of the occasion.

In each side of the reverberatory chamber was inserted a small mica window for the purpose of observing the progress of the crematory process, but they were found of little value. The best observations were made through a circular aperture, one inch in diameter, in the semi-circular iron plate which formed the door of the chamber. The aperture, when not used as an observatory, was closed by an iron slide. The view through it, when the chamber was cleared of smoke and flame by tilting the current through the rear smoke-stack, was very satisfactory. All official observations were made by means of this aperture, and the mica windows were given up to the curious eye of the public.

Such having been the furnace prepared for the cremation we may now recur to the story of its use.

On the 30th of July a telegram was received conveying to the executors the acquiescence of the relatives, and the cremation was set for five o'clock of the afternoon of the following day.

The body, in the meantime lying on ice in the city sexton's office, had lost in weight by evaporation, on account of the warm weather, from 180 pounds at the time of death to 139 pounds at the date of cremation.

By the building and trial of the furnace, the comments of the local press, and the objection of the relatives to the cremation, public curiosity was roused to

its utmost, and the appointed hour found the vacant lot crowded with people.

A number of carriages, containing the pall bearers and friends of the deceased gentleman, called at the sexton's office and conveyed the body to the furnace enclosure. Here it was exposed, wrapped in a simple linen shroud, the face pale, firm, preserving all the natural lines, and looking more like a marble cast of Dr. Winslow than his mortal remains. Some ladies who were present laid bouquets upon the body, and Dr. Hamilton, General Moses M. Bane, and the writer, followed each other in making remarks appropriate to the occasion, which belong, of course, more to the daily news account of the ceremony than to the pages of medical literature.

The body was then prepared for the furnace by being placed upon a one-eighth inch iron plate, which was six feet long and twenty-two inches wide, with its edges turned up about an inch to convert it into a shallow tray. The original intention was to have placed the body directly on the floor of the furnace, and to have raked the ashes out after cremation, but the heat to which the furnace had been subjected during its trial, and in firing up for the cremation previous to the interference of the relatives, with the subsequent cooling, had done much to damage it. The expansion and contraction of its metal flooring had slightly loosened the brick-work, but the chief result was the tendency to cave in of the unsupported parts of the floor. As it was feared that the heat, during cremation, would so increase this as to render it difficult to rake the ashes out over the uneven surface, the sheet-iron tray above mentioned was improvised.

The laden tray was borne by the pall-bearers on three staves to the open door of the furnace-chamber. The smoke and hot air had been turned off through the rear smoke-stack preparatory to this procedure. The head end of the tray was then rested on the edge of the iron floor of the chamber, and, with a steady, onward movement, tray and body were carried into the furnace, each pair of pall-bearers dropping their staves and stepping aside as they reached the door. A few seconds only elapsed from the moment the head end of the tray was rested on the edge of the furnace until the door was shut upon the subject; so few, that the most critical observers could only see the gradual but rapid browning of the shroud, and a flash of flame catching it as the door was closed.

The perpendicular plate was immediately raised and the horizontal one driven home, permitting the smoke and flame to roll along the chamber, lapping the body, and make its exit through the anterior smoke-stack. Nothing could be seen through the mica windows save the wave-like masses of flame; but a rapid, crackling sound, owing to the dissipation of the water of the tissues, was heard for many minutes. In the smoke was noticeable an odor of carbolic acid, due to the vaporization of the carbol used in embalming. This gave occasion to the *Salt Lake Herald* to remark that every offensive odor was observed during the cremation; but the only odor present was the carbolic, and this was so slight, or so assimilated in character to the coal-smoke in which it was disseminated, that a majority of the people failed to observe it. Anyhow, it was of no lasting duration. During the greater portion of the time occupied by the cremation there was no trace of odor.

At the end of half an hour the flame was turned off through the posterior stack, and an observation made through the hole in the iron door, discovering the ribs and the bones of the lower extremities to be

denuded of soft parts; but the hips, trunk, and head were yet covered with carbonaceous masses.

At the expiration of an hour, as the skeleton seemed to have been freed from all black masses or streaks, the door of the chamber was opened for a thorough inspection, revealing the incandescent skeleton with a few dark patches still persisting about the hips and upper part of the trunk.

During the succeeding hour the bones fell apart, becoming broken in their fall, and were more or less crumbled by the continuance of the heat. When the door was opened at the end of this hour, the cremation might have been considered completed. The poker, placed gently on some of the prominent bony masses, crushed through them by its weight. But as thorough success was desirable, and as the artificial blast had not yet been put in requisition, it was determined to give the remains half an hour longer of the heat, with the increased air supply produced by the fan.

During this treatment the bones glowed in their incandescence, but little further change was noticed in their aggregation.

At the expiration of two hours and thirty-five minutes the fires were raked out and the door of the chamber opened, shortly after which the tray was extracted and placed on wet ground to cool. In about half an hour the remains were ready for collection.

The influence of the heated air on the iron plate was now manifest in the numberless flakes of heavy iron oxide which were swept up in collecting the ashes. They constituted about one-fifth in weight of the debris. This result, it must be confessed, had not been foreseen. The loss of active cremative air by the presence of the iron had been appreciated and accepted before the process was initiated; but the flaking up and adulteration of the ashes by the oxide had not been thought of until it was presented in the process of collection. However, the separation was readily effected. Most of the flakes were large and removable by the fingers. Smaller pieces did not yield to the trituration required to reduce the friable bones to powder, and were separated by passing the dust through a coarse-meshed sieve.

None of the bones were complete, but many of the pieces were large enough to enable their derivation to be easily recognized. Some spongy pieces were beautiful specimens of whiteness and delicate lamination.

The result was three and a half pounds of ashes, weighed, urned, and labelled within four hours after the consignment of the body to the furnace.

In view of this fact we must credit the furnace with having done the duty for which it was intended in a very satisfactory manner, although it labored under the disadvantages of a deficient air supply, and an iron flooring which deteriorated the quality of the air. Were a permanent crematory to be called for, Dr. Hamilton and the writer coincide that the furnace above described would fulfil all the requirements, provided the floor of the chamber was made of fire-clay tiles, and a hot-air supply furnished by means of a fire-clay pipe running underneath the flooring, and debouching on the rear wall of the chamber beneath the throat which communicates with the flue.

The cremation was virtually finished in two hours by the furnace in question, notwithstanding its defects; with those defects remedied it is safe to say that two hours would be the maximum time required per body for cremation.

In order to determine the thoroughness of the cremation to which the body of Dr. Winslow was sub-



jected, a sample of the ashes was examined by the writer with the following result:

|                              |       |
|------------------------------|-------|
| Phosphate of lime.....       | 85.06 |
| Magnesia pyrophosphate ..... | 1.60  |
| Lime sulphate.....           | 1.77  |
| Lime carbonate.....          | 11.04 |
| Sodium chloride.....         | .17   |

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99.64

A trace of the lime existed in a free state as quicklime, but it and traces of iron were not determined, on account of the small quantity of material available for investigation.

The analysis shows the entire dissipation of the organic matter, even of the various salts which are incorporated with it, a trace of chloride of sodium, from the organic tissue of the bones, alone remaining.

Fluoride of calcium, which exists to the amount of two per cent. in bone, has disappeared from the ashes—the lime of that salt having combined the sulphate with the acid from some of the broken up sulphates of the organic tissues—as lime sulphate is not a constituent of ordinary bone.

The magnesia pyrophosphate in the ashes, as might be expected, does not differ in quantity from that yielded by bone.

Lime carbonate exists in smaller proportion in the ashes than in bony textures, part of it having probably been carried off by the draught of the furnace; while the deficiency of lime-carbonate and sodium chloride is replaced by an excess of the lime phosphate, of which eighty-five per cent. is yielded, instead of seventy-six per cent., the average in human bones deprived of their organic matter.

### A SHAWL-PIN LODGED IN THE LEFT BRONCHUS FOR THIRTY-THREE DAYS.

SUCCESSFUL REMOVAL BY OPERATION.

By EDWARD J. ILL, M.D.,

NEWARK, N. J.

ON November 3d my father, Dr. Fridolin Ill, was called to a child, Lizzie Gaus, aged six years, with the history that the child had swallowed a pin on Oct. 30th. The mother had administered several doses of castor-oil without the desired effect.

At this time the child had a croupous cough, but nothing could be detected in the pharynx except a small scratch on the left anterior pillar of the palate. A most careful examination of the lung revealed nothing at this time. The child now became feverish.

On Nov. 8th, the fever abated somewhat, but the hoarse cough still remained and became very irritating, purulent bronchitis showing itself.

On Nov. 27th, my father noticed the respiratory noise on the left side to decrease in force, and a slight dullness on percussion over the lower left lobe.

On the 28th, I was asked to see the child with my father; but the patient was taken to one of the clinics and we missed seeing it that day. On the 29th we were asked to see the child again. Now we discovered a slight dullness on percussion, a check at the beginning of inspiration and at the end of expiration, and a constant whizzing sound during inspiration and expiration over the left bronchus anteriorly; decreased fremitus over the whole left lung; a slight dullness on percussion over the lower part of the lower left lobe; decreased respiratory murmur, and numer-

ous râles over both lungs. Fever was very little at this time, but the constant irritating cough which had been present from the beginning had increased. The hoarseness was very slight.

Having gained the confidence of the child, I proceeded to make a laryngoscopic examination. The result was negative, although I gained sight of all parts down to the vocal cords.

I furthermore found that the child, having the head of the pin in its mouth, suddenly gaped, and the pin disappeared.

The diagnosis now was: Pin lodged in the left bronchus with the point upward. To verify the diagnosis, we observed the case for two days longer, always finding the same symptoms, the laryngoscopic examination always negative.

On the evening of Dec. 1st signs of pneumonia set in, and we immediately prepared for an operation to remove the offending cause. In the presence and with the assistance of my father, Drs. Stachlin, O'Gorman, and Lehlbach, I performed the following operation on Dec. 2d:

Tracheotomy, with an incision of one inch, and an opening into the trachea, of from the second to the fourth ring included was made. A most forcible coughing took place, which lasted throughout the whole operation, and was not controlled even by the most profound anaesthesia. I first made search for the pin with a probe, which was introduced into the trachea for nearly four inches, and immediately struck a body which I took to be the pin. I then handed the probe to my friends, but they obtained a negative result.

Again I examined the trachea, and with the same positive result. I now introduced a dressing forceps, bent upon the flat about half an inch below the handle, and was able to catch something between its fangs, but unable to bring it up. To make the story short, I caught hold of the pin, pressed it downward and to the left, thus disentangling the point and bringing it out of the trachea. The pin is one and three-quarters inches long, and the head one-quarter inch in diameter.

The whole operation, including the anaesthetizing, took one hour and twenty minutes. The purulent bronchitis soon abated and the pneumonia resolved. On Dec. 28th I dismissed the child cured.

NEWARK, N. J., Jan 4, 1878.

### A CASE OF GREATLY ELONGATED CERVIX UTERI AT FULL PERIOD OF GESTATION.

OS INCISED AND FORCIBLY DILATED TO ADMIT OF DELIVERY.

By A. R. BARTON, M.D.,

JAMESTOWN, N. Y.

ABOUT 3 P.M. of the 10th of July, 1873, I was called to see Mrs. M—, a native of Ireland, aged about 33 years, who was supposed to be in labor with her fourth child. As near as she was able to tell, she was at the full period of gestation, and the membranes were ruptured forty-four hours previous to my visit, but no pain had occurred until about 6 o'clock in the morning of the day on which I was called, when she had a few slight irregular pains, and a continuous pain in the sacral region, which had not left her at the time of my visit. Soon after the commencement of this pain she had a chill, followed by fever and profuse sweating. At time of my visit, pulse was 100; temperature, 101.4°; skin, hot and moist; tongue,

slightly covered with yellow coating; bowels, acting naturally.

In attempting an examination per vaginam, I found protruding from the labia a large tumor, which, on inspection, proved to be the neck of the uterus, so greatly elongated as to protrude full four inches, by measurement, from the vulva. It measured in circumference eight inches. The os was sufficiently dilated to admit of index-finger by using very little force. The tissues surrounding the os, extending to the outer surface of the tumor, and running back an inch or more, were dense and hard, almost cartilaginous. The vaginal tissues covering the tumor were hard, hypertrophied, dry, and as smooth and shining as the integument on the thigh. There was no ulceration, excepting at one point on the anterior lip and near the os, where there was a small ulcer of about two lines in diameter. The finger carried into the cavity of the tumor discovered nothing more than a continuous canal. Even when the tumor was carried up on the finger as high as possible, the child could not be reached. The fundus of the uterus was well up into the epigastric region, and the abdomen was as large as that of women ordinarily at full term of pregnancy.

My questions elicited the following history of the case: Previous labors were natural, easy, and very short. Patient's health has always been good previous to the fourth month of present pregnancy, when, after walking four miles, and carrying a heavy package, she felt a great weight, or "bearing down" in the pelvis. This condition continued for many weeks, and soon after its commencement her attention was called to a prolapsed condition of the womb by presenting itself at the vulva. From this time there was a gradual elongation and growth of the organ until the end of the fifth month, when, she says, it protruded at least one inch more than it did at the time of my first visit, and continued thus until the last days of gestation, when she was obliged to keep her bed some, and the tumor receded a little. During this time the abdomen gradually enlarged, showing that the body of the uterus was following the natural course of that organ during gestation. The cervix had not been replaced or returned to its normal place for more than four months, during all which time she had attended to her domestic duties, and attended to all shopping for the family. At first she would replace it, or return it inside the vulva on retiring for the night; but, after a little while, it refused to stay there, and she abandoned the practice. There was slight pelvic tenesmus, or dragging downward of the pelvic contents, and constipation. The bearing-down pains were aggravated by walking, standing, or lifting of heavy weights. There was no more pain in back or limbs than is frequently experienced in normal conditions of pregnancy. There was no difficulty in urinating, but occasionally a little more frequent repetition of the act. The most she complained of was the weight, or dragging sensation, and the interference it offered to the movements of her limbs.

An attempt to reduce the deformity resulted in its being returned within the vulva, where it remained. Rest in the recumbent posture was enjoined, and I left, with instructions to call me as soon as the pains became severe. At 11 P.M. of same day, a messenger came, stating that the pains returned at 6 P.M., and had continued quite regular and frequent and at that time were quite severe. Being in attendance on another case, to which I had been previously called, I could not leave for a couple of hours, and advised them to call another physician. At 3 o'clock on the following

morning, after I had returned to my home, I received another call to see the woman, the messenger stating that she was still undelivered, and that they had been unable to procure other assistance, except a half-dozen or so of old women, whom I found standing around the patient's bed, wrapt in bewilderment at the sight of the strange phenomena of a child's head being outside of the vulva, yet as far from their reach virtually as it was when in the mother's abdomen. I learned that the pains had been frequent and severe for three or four hours previous to midnight, but from that time they had been less frequent, but quite regular, occurring on an average of once every five minutes. I found the uterus prolapsed, and lower than at the time of my previous visit. The child's head, enveloped in the neck of the uterus and the vagina, protruded about half its size from the vulva, but every pain or contraction of the uterus forced it completely outside the vulva, and then as the pain subsided it would recede to its former position. This shuttle motion had been going on for three hours. The os was dilated to nearly the size of a silver quarter, but the tissues surrounding it were as hard and unyielding as ever. There had been some hemorrhage, which led me to fear that the placenta might have been sufficiently detached to endanger the life of the child, although I could still hear very indistinctly the placental souffle and the heart-beats of the child. The patient's condition, aside from that referred directly to the uterus, was much better apparently than at the time of my first visit.

Recognizing the inability of nature to relieve the woman unaided, and the necessity for immediate action for the safety of the child and the comfort of the mother, if not her safety also, I set about dilating the os uteri. First, with one finger of each hand, and afterwards two fingers, introduced within the os, I made forcible distention by drawing in opposite directions, and thus, after an effort of half an hour or more I succeeded in dilating it to the size of a silver dollar, but not without rupturing the tissues at two points. Seeing that I could make no further impression on it without danger of perhaps serious rupture, I took a bistoury, and carrying the point back fully an inch and a half on the inside of the cervix, brought it out through the tissues at a point about one-half inch from the end on the outside of the tumor. These incisions I repeated about one inch apart all around the os, and finding they did not admit of sufficient dilatation to allow of the passage of the head of the child, the incisions were repeated between the others until ten in all were made. Then grasping the head of the child with one hand, at the time the uterine contraction forced it beyond the vulva, and with the other making forcible retraction of the cervix, in the same manner one would draw over the finger a tight-fitting glove, I finally, after several efforts, succeeded in delivering the woman of a living female child, of about  $7\frac{1}{2}$  lbs. weight, but not without the further rupturing of the tissues, extending from two or three of the incisions. The loss of blood was comparatively slight from the incisions. The placenta followed in a few minutes, the uterus contracted well, and the whole loss of blood was no more than is usually met with in cases of parturition. The body of the uterus could be as distinctly felt above the pubes as is generally the case immediately after delivery, while the neck of the organ still protruded from the vulva at least four inches. After bathing the tumor in cold water, and on examination to see that none of the ruptures involved other tissues, I carefully reduced it, elevating it as high as possible. I left the woman



quite comfortable, aside from an occasional after-pain, for which I administered ten grains of Tully's powder, and gave orders to repeat it if necessary. Pulse, 72. Skin cool. There was a partial laceration of the perineum, to remedy which I could not get the patient's consent for the introduction of a single suture, although absolutely required to remedy the prolapsus.

As a detailed history of the case and its management from this time on may not be of much interest or practical value, I will give but a brief synopsis of it.

Following delivery the patient had more or less febrile disturbance, followed by profuse sweating, as she had the day before delivery, with rapid pulse, elevated temperature, anorexia, etc.; but with the exception of a little tenderness in the hypogastric region, there was no unpleasant symptoms referable to the uterus as the cause or seat of difficulty. The lochia remained free and natural for a week. Vaginal injections of warm water impregnated with carbolic acid were used three times a day. Saline aperients, mineral acids, and other tonics completed the treatment, and in sixteen days she was about the house doing her work. The behests of poverty overbalanced my authority and influence, and she could not be induced to keep quiet any longer. The uterus at this time was well up in the pelvis, nearly or quite to its normal position. In three days after getting up it had descended to within an inch of the vulva, and the vagina prolapsed an inch or more. One week subsequently, I found the uterus prolapsed three inches from the anterior commissure of the vulva. The incisions had all united very perfectly. Rupture of perineum had nearly healed by granulation. The tissues around the os were hypertrophied and indurated. Vaginal walls hypertrophied. Tumor,  $7\frac{1}{2}$  inches in circumference. When returned into the pelvis it immediately followed the finger back unless the patient was on the back with hips elevated. There was no perceptible discharge from the uterus.

Such was her condition the last time I had an opportunity to examine the case. She would not consent to any treatment looking towards a removal of the deformity. Said she would rather remain in that condition than have more children, for a drunken husband might yet compel her to provide for those she had. A few months subsequently she came with complaints of backache and a dragging sensation in the pelvis, but still declined surgical interference. About this time she passed from under my observation. I, however, learn from a trustworthy source that without ever having had any treatment whatever, she again became pregnant, and in a little more than two years from the time of the birth of the child herein mentioned, she gave birth to another at the full period of gestation, the labor being normal.

DR. E. GINTRAC.—By the death of this gentleman, the medical faculty of Bordeaux has lost its oldest and one of its most universally respected representatives. He was known to science as the author of valuable papers on obliteration of the portal vein, cyanosis, and other pathological subjects, and also of an extensive work entitled *De Pathologie interne et de Thérapie médicale*. This work gained for him the title of Corresponding Member of the Académie des Sciences, and gave him a distinguished rank among scientific men. Dr. Gintrac was an admirable clinical teacher. He had been the instructor of most of the present professors of the school of Bordeaux, and in many ways rendered great service to that school.

## Progress of Medical Science.

A CASE OF NOMA IN WHICH MOVING BODIES WERE OBSERVED IN THE BLOOD DURING LIFE.—The notes of this case were communicated to the Royal Medical and Chirurgical Society by Dr. Sansom. The patient, a little girl, *æt.* four and a half years, was admitted into the North-Eastern Hospital for Children, under Dr. Sansom and Mr. Fay, on Feb. 12, 1876. Her disease commenced a fortnight before admission, with pain in the left cheek. Very great prostration occurred, and increased until admission. Sloughing rapidly took place, the cheek became perforated, and the inferior maxillary bone necrosed. Copious hemorrhage ensued on the third day after admission; on the same day broncho-pneumonia set in. The child died the eighth day after admission. The post-mortem examination revealed very extensive necrosis of the tissues surrounding the left cheek and left side of the tongue, and necrosis of both superior and inferior maxillæ. The bases of both lungs were consolidated. The first microscopical examination of the blood during life was made on the third day after admission. The white elements were in excess, and many existed in fragmentary condition. Examined by a high power, a large number of small, highly refractile bodies, resembling minute colorless crystals, were seen in active movement. Reagents acted upon them variously; weak solutions of carbolic acid, and of quinine arrested their movements; weak solutions of potash and of sulphuric acid stimulated them. The number of these motile bodies varied greatly at different times. After hemorrhage and fall of temperature they were greatly reduced in number; again, when the temperature had risen to  $103^{\circ}$  F. they were in great abundance. When numerous they tended to form groups resembling zoogloea. In size they were one-twentieth part of an ordinary red blood-corpuscle. Shortly before death, ordinary bacteria were observed in addition to the translucent bodies. Similar translucent bodies were found in the urine examined immediately after being voided; and a large number were seen in the feces. The discharges from the wound also manifested them in abundance. Investigations concerning the infective character of the blood and secretions were commenced on the second day after the child's death; the fluids preserved for inoculation having been kept in sealed capillary tubes. A healthy mouse, inoculated with blood from the right auricle, died on the day following, and on examination showed evidences of peritonitis, the exudation containing a large number of motile bodies, exactly resembling those present in the blood of the child.

A Guinea-pig, treated in the same way, died five days after the operation; its blood contained a vast number of the special translucent bodies. Inoculation of the fluids from the seat of the noma was practised upon a mouse and a cat. Both animals died, and there was a complete absence of the motile translucent bodies from their blood. It would appear, therefore, that whilst inoculation of the fluids derived from the diseased tissue produced peritonitis without discoverable alteration of the blood, inoculation of the diseased blood induced septicæmia, with the manifestation of the characteristic motile particles observed in the original disease. The organisms resembled amœbæ rather than bacteria. — *Medical Examiner*, October 25, 1877.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## LIBERALISM IN HOMŒOPATHY.

THE resolutions recently passed by the Homœopathic Medical Society of the County of New York are a striking indication of the tendencies of the times. They say in effect that the dogma "similia" is no longer capable of universal application, and that, as honest physicians, the homœopaths are obliged to rely to a greater or less extent upon the practices and methods of the older school. In other words, they no longer desire to be considered as exclusives.

For many years it has been a matter of common notoriety that professing homœopaths have not infrequently availed themselves of the teachings of regular medicine, and applied them in purposely disguised forms. The inconsistency of such a course has undoubtedly led to much of the ill-feeling which we as a school have borne towards them. The present honest declaration, that homœopathy, pure and simple, is not all that their earlier fancies painted it, is simply a public admission that the sectarian position formerly assumed by them is no longer tenable; that duty to their patients requires them to become physicians in the broadest sense, and not blind followers of a creed nor worshippers of a man. That honesty, learning, and ability, possess many representatives in their ranks is unquestioned, and we welcome the resolutions as a desire on their part to return to the ranks of a catholic profession, broad enough, as its earlier records show, to embrace and give trial to any views, when presented in a spirit of scientific moderation, and when not accompanied by too great demands upon ordinary credulity.

## THE COLUMBIA HOSPITAL CONTROVERSY.

WHILE criticism of minor deficiencies in the administration of hospitals and asylums ought not to be admitted into the columns of a medical journal, and

while defects, arising from causes beyond the control of medical officers or from the infirmities of human judgment, may properly claim the immunity of kindly silence, it is our bounden duty, however ungracious the task, to call upon medical boards and superintendents for an explanation in instances of public institutions, where apparently well-founded allegations of mismanagement or corruption are made. In exercising this duty, it fell to our lot, several weeks since, to take notice of a pamphlet, understood to be written by a distinguished physician in Washington, charging serious maladministration upon the Columbia Hospital for Women and Lying-in Asylum, while Dr. J. Harry Thompson was officially connected with the institution as surgeon. The charges were of such gravity, and so specific in their details, that the omission to explain them scarcely admits of any interpretation save confession of their justice. In noticing the allegations of the writer, and summarizing them, it was distinctly stated that our article was in the nature of a *résumé* of what had already appeared in the *Louisville Medical Journal*, and distinctly intimated that any sufficient answer to them would receive immediate attention. In lieu of such a vindication as the circumstances demanded, a copy of the report of the Columbia Hospital for the fiscal year ending June 30, 1877, was forwarded to this office. This report, when critically examined, was found not only to contain no materials for the refutation of the charges, but to furnish the data to verify them in many important particulars. This fact was kindly stated in a brief editorial, and the managers were assured in very direct terms that, while the facts and figures of the report apparently sustained the writer of the pamphlet in all material points, the columns of THE MEDICAL RECORD were at their service, if substantial injustice had been done.

Since then a pamphlet reprint from an article in the January number of the *Louisville Medical Journal* has been submitted to our inspection, in which the writer—understood to be the same as the author of the preceding article—enters upon a thorough analysis of the figures of the report, points out several grave discrepancies, and asks that sums to a considerable amount be duly accounted for. For details, readers must be referred to the pamphlet or to the columns of the journal in which the article appeared. It is not to our purpose just now to reiterate statements already accessible to those who have an interest in the management of the Columbia Hospital; but it is distinctly within our purpose once more to advise the gentlemen in charge of that institution that they are of such gravity as to call for specific denial and specific explanation of the figures upon which they are based. Of course it is beneath the dignity of medical men of established reputation to take notice of vague intimations of maladministration, or of unsupported charges, unless they appear in journals of distinguished professional stand-



ing. But there are occasions when, distasteful as it may be to physicians conscious of the rectitude of their intentions, silence is liable to be misinterpreted; and the gentlemen whose administration of the affairs of the Columbia Hospital is impugned are profoundly mistaken in permitting notions of professional dignity to prevent them from repelling charges that imperil their reputation as honorable men, and from publishing the fullest vindication of their acts. Perhaps—the intimation is tendered in all sincerity—the easiest way to vindicate the management of the hospital is to demand an investigation, and to insist that it be thorough and authoritative. There are many members of Congress who would not object to serve upon a committee for that purpose, and such a disposition of the affair is not derogatory to professional dignity.

#### GYNÆCOLOGICAL STATISTICS.

THE twenty-second annual report of the Woman's Hospital in the State of New York presents one feature that is decidedly worth the attention of gynecologists—namely, a carefully prepared tabular statement of all the cases treated in the institution from its foundation, and the results in each case, thus giving a retrospect of twenty-two years in the treatment of diseases peculiar to women. During this long period, from December 31, 1855, to December 31, 1877, the total number of cases recorded has been 2,153, of which 1,049 were cured, 729 improved, 81 not improved. In 210 cases the result is not recorded. The deaths were 84, or a trifle less than 4 per cent. of the admissions. A glance at the statistical exhibit of diseases furnishes a certain species of information—respecting the relative frequency as compared with each other of the principal disorders peculiar to women—in which the profession at large is probably somewhat deficient, and which, therefore, is worth summarizing. The table opens with 4 cases of uncomplicated hysteria. Diseases of the labia furnish 10 cases; deranged menstruation, 54; metrorrhagia, 3; fissure of the os uteri, 1. Ovarian diseases are responsible for 22 cases, of which 16 were ovaritis. Laceration of the perineum occurs in 142 cases; extra-uterine pregnancy in 1. Diseases of the rectum, 20; tumors—cystic, fibroid, and ovarian—203; polypi, 36; urethral diseases, 18; uterine diseases, 970; vaginal, 98. In all, since the hospital started, 1,247 operations have been performed. Pages 54 to 81, inclusive, embrace a complete analysis of the diseases of which a summary has just been given, with notes respecting the causation in each case, the mode of treatment adopted, and the result. Cystotomy has been performed 17 times, with 4 cures. Closure of recto-vaginal fistula has been undertaken in 19 cases, with 14 cures; of vesico-recto-vaginal fistula in 9 cases, with 7 cures. Of the 52 ovariectomies, 26 recovered and 26 died. In one case both ovaries were successfully removed.

This brief summary of Dr. Beekman's valuable collation must suffice. Although it is necessarily very incomplete and unsatisfactory, it will serve to indicate to the profession that a really valuable contribution to science has been made in the compilation of the tables, which are particularly specific in their description of the modes of treatment adopted in the various diseases, and their comparative results. Of the 25 cases of dysmenorrhœa, for instance, in 16 the cervix was divided, with 11 cures, and the rest improved. The three principal causes of death have been hemorrhage, peritonitis, and septicæmia—the first having 8 cases, the second 41, and the third 18.

The medical board reports 232 admissions during the year, and 174 operations, with a mortality of 7.

### Reports of Societies.

#### NEW YORK ACADEMY OF MEDICINE.

##### OBSTETRIC SECTION.

*Stated Meeting, January 21, 1878.*

DR. ISAAC E. TAYLOR, CHAIRMAN.

##### NARRATION OF CASES—CASE FOR DIAGNOSIS.

DR. BUTLER related a case as follows: A male child, born in normal labor, with no physical defect apparent, had a semi-idiotic appearance, and had not made any attempt whatever at co-ordinated movements, not even to raise the head, when he was two years and three months old. He was supposed to be still-born, but persistent efforts brought restoration. He had been bottle-fed. The skin was translucent, veins showed plainly, sutures were well united, head normal in size, abdomen slightly enlarged. There was difficulty in deglutition, and the stools were curdy. No known attempt had been made on the part of the child to raise a hand or foot. There was a slight tonic muscular contraction constantly present; at times quite severe spasms, and yet there seemed to be some measure of paralysis. The skin could be pinched without giving rise to the least complaint, unless the pinching was very hard, when a moderate recognition was given.

*Treatment.*—The diet was changed from milk to beef-tea; bismuth and pepsine, alternating with the tincture of iron, were administered, and the bowels were kept soluble with salines.

At the end of six weeks the character of the stools had changed, the appetite had improved, and cod-liver oil was administered. At the end of two months the salines were discontinued, the appetite was fair, and the boy began to brighten. At the end of four months he was able to sit up. At the end of six months he began to creep. When he began to creep he would occasionally lay his head upon the floor and intentionally bump it. He was then taking nuxvomica with the iron. Both remedies were discontinued, and the symptom disappeared. In less than one year the child began to walk by the aid of a chair, and said "papa" and "mamma." There was no evidence of rachitis.

DR. TAYLOR asked what the presentation was, and Dr. Butler replied that it was vertex.

## HEMIPLEGIA AND PARAPLEGIA—BREACH PRESENTATION—OCCIPUT POSTERIOR.

Dr. TAYLOR referred to cases of hemiplegia and paraplegia that had come under his observation, and associated with breach presentation and presentation with the occiput posterior. In such cases there might be improvement, but it was usually slow. The explanation given was, that in breach presentation the head might not rotate as did the shoulders, and the consequence was a twisting of the neck. In occipito-posterior presentation it was not certain that the shoulders rotated at the same time with the head, and the same consequence followed. This was regarded as a quite frequent cause of the death of the child in these presentations.

## TAPE-WORM—CHILD TWO AND A HALF YEARS OLD.

Dr. TAYLOR reported a case of tape-worm occurring in a child two and a half years of age. The child had no symptoms of worms, except that it did not seem to be very bright. It was thought by the mother to have pin-worms, but upon investigation it was found that joints of *tenia solium* were being passed.

The worm was removed by the use of turpentine and castor oil. About thirty feet were obtained, and it was thought the entire worm was expelled. The joints presented the appearance seen in both the *tenia solium* and the *tenia lata*.

## RETAINED PLACENTA.

Dr. CARO related a case in which the placenta, after an abortion, was retained six days without accident. His plan of management had been non-interference, except the administration of occasional doses of ergot.

Dr. TAYLOR regarded it as a proper method of managing the placenta under such circumstances. He did not resort to forcible removal of the placenta, if retained after abortion, because such procedure was dangerous. If flooding was present, the tampon was the most serviceable means for arresting the hemorrhage. He had seen cases of abortion in which the placenta had been retained two, three, and five years. He once went to remove a supposed uterine polypus, but when in hand it was found to be an old placenta. The only symptom had been an occasional hemorrhage.

Dr. W. T. WHITE asked whether or not it was proper to remove the placenta at any period of abortion.

Dr. TAYLOR replied that the best method was to let it alone. It was not so dangerous to interfere when the placenta was retained at full term. When he had interfered and forcibly removed the placenta after abortion, the patient had generally been troubled subsequently with metritis.

## CRANIOTOMY—PECULIAR DEFORMITY OF THE PELVIS.

Dr. TAYLOR related a case in which the pubis dipped inwards instead of outwards, and rendered craniotomy necessary.

The case was interesting as one illustrating the fact that it did not necessarily follow because the forceps had been applied extreme traction should be made. If, with quite powerful traction, the head could not be moved, it was best to remove the forceps and wait a few minutes; then reapply them, and it would usually be found that at the second application the head could be moved by the use of a very reasonable degree of traction.

The case also illustrated the fact that it was not

necessary to wait until the mouth of the uterus was fully dilated before applying the instruments.

## CONVULSIONS IN CHILDREN—HYDRATE OF CHLORAL.

Dr. HUMPHREY related a case of convulsions occurring in a child two years of age. They were supposed to be due to malaria. The case was related to illustrate the good effect produced by the hydrate of chloral in the management of convulsions in children. The child was unable to swallow, and grs. v., in solution in water, were injected into the bowels, with the most satisfactory results. There was no evidence of meningitis. He had used chloral with success in cases in which chloroform had failed to control the convulsions.

Dr. DOWNS remarked that he had employed the remedy, in doses of 15 to 20 grains, in the management of puerperal convulsions, and the dose was repeated every half-hour, if the convulsions continued.

He had also used it, in 1, 2, 3, or 4-grain doses in the treatment of convulsions in children, and in both instances with good results.

Dr. TAYLOR remarked that he had always been somewhat timid with reference to using very large doses of hydrate of chloral.

Dr. CARO regarded the use of hydrate of chloral in cases of hydrocephalus as certain to produce a fatal result, because it removed what little blood there was left in the brain. In the treatment of any case in which there was no congestion, it was almost absolutely certain to produce death.

The same principle held good in its use in the treatment of delirium tremens. If there was no congestion present, the patient would not be put to sleep under its influence, but would sleep under the influence of opium. If active congestion was present in delirium tremens, the chloral would be a proper remedy to be employed.

The Section then proceeded to the election of officers for the ensuing year.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, December 12, 1877.*

Dr. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

(Continued from page 115.)

## CONSERVATIVE SURGERY.

Dr. MASON exhibited a male patient, aged about 45 years, for the purpose of illustrating one of the triumphs of conservative surgery.

Thomas Daly, aged 45; Ireland; married; car-driver; admitted to Roosevelt Hospital, March 23, 1877. On day of admission, patient was endeavoring to couple a loosened trace, when the horse bolted suddenly and dragged him over the dash-board of the car on which he was the driver.

An examination revealed compound fractures of both condyles of the left humerus and of the head of left radius; also considerable comminution.

As patient's history and condition were unusually good, an attempt to save the limb was thought justifiable, the external wounds being small.

On March 27th, erysipelas, which became phlegmonous, attacked the injured part and spread rapidly up the arm to the shoulder and over the back. Hypodermics of a solution of carbolic acid employed to arrest the spread of the erysipelas. Temperature of patient, for two weeks, ranged from 104° to 106½°. Patient unconscious the while. Suppuration very ex-



tensive and diffuse. Free counter-openings made for drainage. About April 20th, a large portion of external condyle and trochlear surface was removed with dressings. One week later a piece of the internal condyle and trochlear surface was taken away. Small granular pieces of bone came away from time to time, until April 21st, three days after patient's discharge from hospital.

Recovery of patient was decidedly rapid from May 16th, when he was allowed to sit up for the first time. Passive motion perseveringly employed both by house-surgeon, Dr. Halstead, and the patient. August 18th, discharged cured.

REPORT OF THE MICROSCOPICAL COMMITTEE ON THE CASE OF LARYNGEAL PHTHISIS, PRESENTED ON THE MEETING OF NOVEMBER 14, 1877, BY DR. BEVERLEY ROBINSON.

To external appearance there was no decided lesion of the larynx, more than that the surface of the mucous membrane was rough, especially at the base of the epiglottis, and from this point down to and over the lower vocal cords. There was no decided elevation of the mucous membrane, indicative of miliary tubercular granulations. On section of the tissue between the epiglottis and upper margin of the upper vocal cord a number of yellow, circular spots were noticed in the submucous tissue. They looked to the eye like cheesy nodules, and varied in size from a pin's head to a No. 2 shot. No miliary granulations were seen anywhere. Examined microscopically, it was seen that these spots had undergone granular and fatty change, as is seen in the so-called "yellow granulations." The submucous tissue was in places densely infiltrated with lymphoid corpuscles, chiefly about the mucous glands, but neither adenoid tissue nor giant-cells were seen. The epithelium of the surface showed the characteristic cylindrical form that occurs throughout almost the whole of the larynx, and was intact, except in a few places, but never wholly gone. In these places the epithelium was low, deformed, and did not take the coloring matter. The elongated papillæ seen on the true vocal cords and in the posterior foldings of the mucous membrane, near the arytenoid cartilages, were normal.

*Stated Meeting, Dec. 26, 1877.*

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

TUMOR OF OPTIC THALAMUS—NO SYMPTOMS OF BRAIN LESION.

DR. E. C. SEGUIN exhibited a tumor of the thalamus opticus which had been removed from a patient under the care of Dr. Willard Parker. Unfortunately there were no symptoms of brain lesion during life, and no history bearing directly upon the nature and extent of the lesion was ascertainable. The patient had merely complained of dyspeptic symptoms, for which he was treated. The point of interest in connection with the supposed absence of symptoms, was the situation of the tumor in the substance of the thalamus, and confined to its anterior portion, the internal capsule not being involved. The optic nerves were not examined.

DR. JANEWAY referred, in this connection, to a case under his care in which two hemorrhages occurred on the same side of the brain. One effusion was just below the position of the tumor in Dr. Seguin's case, involving the internal capsule and lenticular nucleus. The other hemorrhage took place in the first temporo-sphenoidal convolution, involving the descending horn of the lateral ventricle. In that case there was

a marked loss of sensation. The patient (a woman) lived two days after the accident.

DR. SEGUIN asked if the second lesion produced any symptoms.

DR. JANEWAY, in answer, alluded to a case of cerebral tumor which occupied precisely the position of the second lesion in the case referred to, and in which there was undoubted paresis on one side.

INTRA-UTERINE FIBROID.

DR. A. C. POST presented an intra-uterine fibroid which he had removed, by operation, from a widow, aged 34 years. Her husband died four years ago. During her married life she had several abortions, and from the time she first menstruated she had been subject to dysmenorrhœa. A uterine tumor was not detected until a few months ago. She had had for a considerable time past paroxysms of rectal and vesical tenesmus, and a moderate amount of uterine hemorrhage. On several occasions she had retention of urine, and it was during one of these attacks that she was examined by her family physician, who detected the nature of the trouble. She then came under the care of Dr. Post, at the Presbyterian Hospital. The os uteri was dilated to the size of a silver dollar, and the extremity of the intra-uterine growth was easily reached. The margin of the cervix was firmly attached to the tumor at its posterior part. The uterine probe showed the length of the tumor to be four and one-half inches. The patient was placed under the influence of ergot (Squibb's fluid ext.) for several weeks, in doses of a drachm three times a day, and afterwards four times a day. It occasioned some uterine contractions, but not of a severe character, and did not affect the position of the tumor. It nauseated the patient somewhat, and the remedy was temporarily suspended accordingly.

December 20th, the patient was etherized, placed in the lithotomy position. Firm pressure was made upon the hypogastrium, the uterus was pushed down so that the tumor could be brought within easy reach. The presenting portion of the tumor was then seized with a vulsellum, and firm traction made upon it. It yielded but little, however, until the firm adhesions at the cervix were severed. The finger could then be passed around the growth. The adhesions to the uterine walls were separated slowly and with difficulty. A strong double ligature was then passed through the growth, and a loop made. By this means a very convenient method of making traction was applied, and almost replaced that made by the vulsellum. The separation of the tissues by means of the finger, and afterwards by Dr. Thomas's serrated spoon, was kept up until the larger part of the uterus was through the os uteri. It was then found that the os itself resisted the further descent of the tumor; the former was then nicked with a scissors, when the mass was extracted without trouble. There was but a moderate amount of blood lost during the operation. After the removal of the tumor the whole hand could be passed readily into the cavity of the uterus, which was exceedingly soft and flaccid. The tumor weighed nearly seventeen ounces.

When the patient was removed to the ward there was considerable hemorrhage, but not of an alarming character. There was some soreness over the anterior portion of the uterus, but the temperature at no time rose above 102°.

RENAL CALCULUS.

DR. AMIDON presented two specimens of renal calculi removed post-mortem from patients in the New

York Hospital, under the care of Drs. Woolsey Johnson and George A. Peters, respectively. The histories are as follows:

CASE I.—Male, æt. 31, brass founder. August 21, 1877, admitted to New York Hospital, service of Dr. Woolsey Johnson. Four months ago, weakness in the small of back, and slight pain in same situation was noticed. Two months later attacks of vomiting set in, which lasted till death. About the same time the ankles, then the abdomen, and last the face began to swell. The degree of swelling varied with the treatment. It was at no time excessive. Cough, with copious mucous expectoration, was present. The urine was all through scanty,  $\frac{5}{8}$  x. daily, and contained albumen, hyaline, and granular casts.

Aug. 22d.—Diarrhoea set in. Vomiting continued.

Aug. 24th.—Diarrhoea excessive. Two or three watery stools every hour.

From Aug. 24th to Sept. 5th, no history, except the previous symptoms continued and aggravated.

Sept. 5th.—Died.

*Autopsy.*—Extreme pallor of the skin. General anasarca. Hypertrophy of the left ventricle. Insufficiency of the pulmonary valves. Considerable bloody serum in both pleural cavities. Extensive œdema of both lungs. More than a quart of clear, amber fluid in the peritoneal cavity. Liver enlarged. Right kidney enlarged, but of normal appearance on section. Left kidney hard to find, and removed on account of its small size and the inflammatory adhesions in the perinephritic areolar tissue which bound it down to the posterior abdominal wall. The adhesions were apparently old. The kidney, when removed, showed an irregular sinus on its posterior surface, from which a puriform fluid could be squeezed. Capsule adherent, cortex thinned; medulla atrophied, papillæ flattened and of grayish-black color. Pelvis contracted, discolored, and full of a purulent fluid. Left ureter hypertrophied, and pervious to a small whale-bone guide, but about one and a half inches below the kidney the ureter was dilated and contained a rough calculus one-half an inch in diameter. Bladder was normal. No vesical calculi existed.

CASE II.—Male, æt. 57, France. Brass finisher. Married. Admitted Nov. 16th, service of Dr. George A. Peters. Suffering from abscesses in right side of the neck. Patient complained of continuous headache, pain in the neck, small of back, and in the course of ureters. Had attacks of shivering accompanied by spasms of the legs. Had a maximum temperature varying from  $101^{\circ}$  to  $103^{\circ}$ . Patient was emaciated, suffered from anorexia, constipation, and hemorrhoids. There was no œdema or ascites. Micriturition on admission was difficult, and later almost complete retention of urine came on. Urine was drawn twice a day with a catheter, which met an obstruction far back in the prostatic urethra. The urine at first was clear, but later became cloudy and ammoniacal, contained albumen and casts, and had a sp. gr. of 1010. About twenty-six ounces were daily drawn. Examination of bladder by Dr. Peters showed the absence of stone and the presence of an hypertrophied prostate.

Dec. 23d.—Died.

*Autopsy.*—Fourteen hours after death. External appearances normal. Head and spinal canal not opened. Contents of chest normal. No peritoneal fluid. Liver, stomach, pancreas, and spleen normal in appearance and position. Right kidney of normal size and position; capsule adherent, cortex injected; medullary portion grayish and atrophied; pelvis dilated, papillæ flattened, and calyces dilated. The

right ureter presents several fusiform dilatations in its course the size of an almond. Left kidney displaced upwards. Capsule adherent, cortex thinned and fatty in some places. Medulla black and atrophied, pelvis dilated, and containing a stone the size of an English walnut. The left ureter, just below the stone, was of normal size, but still lower it was dilated to the size of the wrist, and contained within its thinned walls about two pints of a thin, purulent fluid. Before reaching the bladder it again contracted to the size of a lead-pencil. Bladder full of purulent urine. Muscular coat hypertrophied. Mucous coat presents the appearances of chronic cystitis. On the left wall of the bladder is seen a round opening, one and a half inches in diameter, which leads into a spherical sac three inches in diameter. The walls of the sac are thinner than those of the bladder proper. There was no vesical calculus. The prostate was symmetrically hypertrophied to about twice its normal size. Some small prostatic calculi were found.

Dr. L. A. STIMSON exhibited a fleshy vegetation one inch in length, and covered with vesical epithelium, which was discharged per urethram by a child nineteen months old. The specimen was sent to him without a history.

The Society then went into Executive Session.

## Correspondence.

### THE TREATMENT OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In his recent article on "The Treatment of Diphtheria" in the RECORD of Jan. 12th last, Dr. C. E. Billington gives as the "distinctive features" of his treatment the following: 1. The combinations in which he gives the tincture of the chloride of iron, the chlorate of potash, and the lime-water, mixing them with glycerine. 2. The convenient and unirritating method of their application, meaning, doubtless, the spraying of the throat with carbolic acid and lime-water mixed. 3. The frequency of the application of the remedies. 4. The avoidance of local irritation of the membranes by brushes or swabs. 5 and 6. The omission of quinine or other unpleasant medicines, and of alcoholic stimulants (as a rule).

By neglecting to mention whether other observers have adopted the same or a similar course, Dr. Billington allows us to assume that this plan is original with him. Now, Mr. Editor, it seems no more than justice to correct this impression, since I find essentially precisely the same rules recommended by Dr. A. Jacobi, in an article entitled "Contributions to the Pathology and Therapeutics of Diphtheria," read before the County Med. Soc., Dec. 28, 1874, and published in the *American Journal of Obstetrics* for Feb., 1875. In this article the frequent application of the iron, the chlorate of potash, and the lime-water, mixed with glycerine, is distinctly recommended, although the convenient formulæ of Dr. Billington are not given, probably because every physician knows how to write such prescriptions. Both the iron and the chlorate are positively ordered to be given every quarter hour, half hour, or hour, as may be necessary. Local applications by swabs, etc., are discountenanced as unnecessary, because the medicines, when swallowed sufficiently, touch the diseased pharynx. Carbolic acid and lime-water are also recommended as local



disinfectants, particularly in nasal diphtheria, applied by means of a syringe every half hour or hour. Quinine and other internal antiseptics, according to Dr. Jacobi, are useless.

Of distinction sixth, I do not speak, as probably it is scarcely necessary to caution against the indiscriminate use of stimulants in cases where the patient readily takes all the nourishment he requires; and when the reverse occurs, no physician would hesitate to give all the stimulants he can induce the patient to take. In this particular, there can be but little difference of opinion.

Now, Mr. Editor, where are the "distinctive features" of Dr. Billington's treatment? Apparently solely in the use of the spray instead of the syringe, for I do not find the former instrument mentioned in Dr. Jacobi's paper. Dr. Billington's statistics show the excellence of the treatment; therefore, it is but fair that the man who employed it years previously, and reported it before its adoption by Dr. Billington (in the epidemic of 1875, as the latter states), should receive the credit due him, and not be passed over in silence.

PAUL F. MUNDÉ.

20 WEST 45TH STREET, Feb. 9, 1878.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I was somewhat surprised when I read Dr. Billington's letter in the current number of THE MEDICAL RECORD, in which he takes me to task for certain supposed criticisms of his article on "Treatment of Diphtheria," in the RECORD of January 12th. It is true, as he says, that I did not, at the time, read his article very carefully. I have since done so, and reiterate that I see nothing "strikingly new" in his method of treatment.

He makes chlorate of potash and tincture of the chloride of iron the basis of his constitutional remedies; so do hundreds of others. He uses almost the identical spray mentioned by Dr. J. Lewis Smith, in the October, 1877, number *Am. Journal Med. Sciences*. He claims a distinct method, because, 1st, "the combinations are simple, pleasant, harmless, and efficacious;" 2d, "the convenient and unirritating methods of their application;" 3d, "the frequency of their application;" 4th, "he does not, as a rule, apply a brush or swab to the throat;" 5th, "he does not, as a rule, give quinine or other unpleasant medicines to children;" 6th, nor, "as a rule, alcoholic stimulants."

I contend that other combinations of chlorate of potash and tincture of iron, which are used by others, are equally as "simple, pleasant, harmless, and efficacious;" 2d, supposing that the doctor refers to local treatment, I affirm that there is nothing "new" in his suggestion of the spraying apparatus; 3d, he will find that Smith and others used their remedies about as frequently as he does; 4th, Oertel, for one, has anticipated Dr. B. in condemning all harsh local applications to the throat; 5th, it is almost universally acknowledged that all medicines, the administration of which necessitate a struggle with the child, or which produce nausea or vomiting, should be omitted in the treatment of diphtheria. The reason is obvious. I will not discuss it. But I contend that quinine can be given in mucilage of slippery elm, without resistance from the patient, and without subsequent nausea and vomiting. Scarcely any one denies the great value of this drug in diphtheria. If the doctor objects to quinine on the ground of its unpleasantness, his objection must be overruled. 6th (and here is one great difference), he objects to the use of stimulants, except in rare instances. I do not believe in the indiscrimi-

nate use of stimulants in diphtheria; neither do I in any disease. Accepting Dr. B. W. Richardson's views of the physiological action of alcohol as correct, I employ it only to tide over impending danger from paralysis of the heart. In mild cases of diphtheria, and in those severe because of laryngeal complication alone, I do not use stimulants. In those cases where there is marked systemic infection (especially if there is a tendency to asthenia) I prescribe them freely.

The principal points of difference in Dr. B.'s article and that of Smith, *loc. cit.*, are these: Dr. B. regards diphtheria as primarily a local disease; Dr. S. does not. With this difference I have nothing to do, as it was the similarity of treatment alone which I discussed; second, the use of quinine; third, the employment of stimulants. In all other important points of medicinal treatment their methods are very similar. I need only to refer to their respective articles for proof of my assertion. Dr. B. thinks it strange that I should have associated the two methods; I do not. Finally, I have never assumed that Dr. Billington's treatment possessed no *just* "claim to originality." I said that it was not "strikingly new." Stephenson "originated" the locomotive, Morse the telegraph; some person may possibly "originate" them again with "slight modifications," but they would not be "strikingly new."

W. B. RODMAN, M.D.

FRANKFORT, KY., Feb. 5, 1878.

## THE DEATH FROM VACCINATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—A few weeks since I reported a case of death following—not *dependent upon*—but following vaccination. The object in reporting the case was to explain the probable cause of death and prevent it from appearing hereafter as a death due to syphilis, erysipelas, or other bugbear urged by the enemies of vaccination. In that report I tried to make three plain statements: 1st, that reports of death following vaccination were very rare; 2d, that certain diseases sometimes could be communicated by impure virus, which, however, I showed could not have been the cause in the case reported; 3d, that my patient doubtless did die of septicæmia.

A medical gentleman, for whom I have the highest respect, and whose appreciation of the value of vaccination can be superior to mine only as his knowledge of the subject is superior to most general practitioners, seems to have read the report so carelessly as to have considered it allied to the notorious Westford cases, and, in his zeal to defend bovine virus from a supposed attack, attributed the death to vaccination during the prevalence of scarlatina, and attached some censure to the operation at such a time.

In explanation of the cases of scarlatina appearing at that time, it is proper to state that all occurred in one house in the extreme suburbs, nearly a mile from my office, and that my patient was not, at any time, nearer than one mile to that house. Further, the cases of scarlatina were not patients of mine, nor had I seen a case of scarlatina for more than two months previous.

Should censure properly be attached to vaccination during the prevalence of scarlatina, in all our large cities vaccination would be permanently suspended, since at no time are most large cities free from the prevalence of scarlatina.

As I expressed in my first communication, and as Dr. Martin could have observed had he read more care-

fully, the death was evidently due to septicæmia, not to scarlatina; and as well might have followed the removal of the epidemia by the scalp had no vaccine virus been introduced into the system—as well might have followed the bite of a mosquito, a bullet-wound, or pin-scratch.

I have recalled the attention of the profession to this case, lest it should be distorted and compelled to do service by the enemies of vaccination.

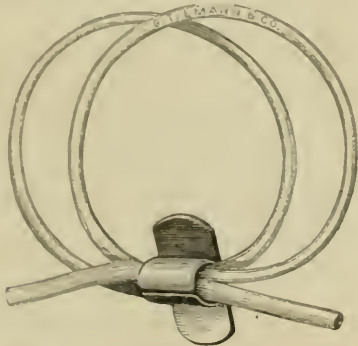
JESSE HAWES, M.D.

GREELEY, COLO.

### ESMARCH'S BANDAGE.

TO THE EDITOR OF THE MEDICAL RECORD.

Is Esmarch's prize essay on Military Surgery, recently published, I found a woodcut of a simple contrivance for fastening the rubber bands or tubing used in his "bloodless method," which has proved so useful in the New York and Roosevelt Hospitals, that I venture to ask you to republish the diagram, in order that it may be more widely known. When the tubing is drawn tight in encircling a limb, it narrows so much that it can be introduced through the slit seen on the top of the instrument, but when the tension is relaxed, the natural increase of the diameter of the rubber beyond the clamp prevents all slipping or yielding. To unloose it, the rubber band is again pulled upon until it is thinned sufficiently to escape through the slit.



A little smaller size is needed for a rubber band than for rubber tubing.

Yours, truly,  
R. F. WEIR.

I may add that Langenbeck has also devised a catch like an ovarian clamp (which will answer as well), to secure the extra turns of the rubber bandage when this plan is resorted to, to avoid the more concentrated pressure of a band or tubing upon the tissue.

### THE PROVIDENT DISPENSARY SYSTEM.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—A large number of the profession in this city felt aggrieved at the action taken by the New York Hospital in issuing a circular offering to treat "all persons without distinction" for the sum of one dollar per month, and now comes the "Good Samaritan Hospital," where, "to avoid the abuse of this charity," persons having an income of twenty dollars per week are required to pay *twenty cents per week* while under treatment, and "the staff is to be increased from time to time as the requirements of the institution may demand." Now let me ask, if this plan is to be extended and made popular, where are the majority of New York physicians to look for their

patients? At the present time, I believe, much the larger part of the heads of families in this city would be glad to receive an income of twenty dollars per week, and the larger part of New York practitioners have derived a modest livelihood from fees of one or two dollars, cheerfully paid by the middle classes. Why is our right to be ignored by inducements held out to "the industrial classes" to obtain "the best medical and surgical treatment" for twenty cents per week, or for one dollar per month, as the case may be?

These professors, who breathe the atmosphere of Fifth Avenue, and who despise anything less than a fee of from ten to twenty-five dollars, seem to quite ignore the rest of the profession. Do they alone possess the *fundamental* knowledge requisite to treat diseases of the rectum? Their names upon our diplomas would seem to contradict that assumption. They took our fees as students, and have received many a fee since in consultations which we have procured them, but if they seek now to leave us no field in which to practise, we shall be compelled in return to ignore them and all specialists, and in self-defence to consult only ourselves, and to return to the old plan of every physician covering the whole field of practice. R.

NEW YORK, January 22, 1878.

### PROPRIETARY MEDICINES.

TO THE EDITOR OF THE MEDICAL RECORD.

ALLOW me to correct and apologize for a blunder of mine at the late meeting of the State Medical Society, to which Dr. George Bayles has called public attention through your columns (current series, p. 120). In referring to an action which the Society had taken in regard to advertising patented articles through its Transactions, a paper was mentioned without giving its title or its author, and the wrong patent medicine was named. This I regret and apologize for.

Dr. Bayles was the author of the paper referred to, and his paper was rejected by the Society because it recommended a patent medicine, and the blunder was that I named another patent medicine of the same house that he was then advertising instead of the one he recommended. Dr. Bayles has, therefore, correctly suspected that his was the paper referred to. Had he been equally acute in seeing the true character of the blunder he would have been saved the trouble of the very emphatic denial and imputation with which he has publicly favored me.

It was this same old subject before the State Society, and the action taken upon it, which you criticise in an editorial on pages 71 and 72 of your current series. If you will in that article read mineral-waters or wines instead of patented goods, and refer back to criticisms which you have made upon medical men aiding to advertise such articles, it is probable that the recent action will not appear as "pandering to" either "prejudice" or "reason."

One of the grounds for objecting to the name of the Patent Food Company being given has escaped your notice, and that was that at least two other companies have similar foods, professedly prepared in a similar manner, from similar material, by patented processes, and that the State Society's Transactions would be likely to be quoted in advertising one company to the prejudice of others, without adequate knowledge of the relative values of the products. It was, therefore, thought to be sufficient that the food should be described without giving the name of any particular company, and the wonder was that the author of the paper did not consent to withdraw the name without



pushing the matter to a discussion and a vote, which obliged him to withdraw it or his paper. The food being fully described in the terms of nearly all the advertisements of all the companies, it would have been left to the professional reader to judge as to which company's drummers and advertisements should be accepted.

The high stand which the RECORD has taken in regard to these matters, and notably the editorial on p. 93, commending the excellent resolutions adopted by the New York County Society, on p. 99, make the criticisms above referred to seem a little inharmonious, for, if we put the State Society in the place of an individual member of the profession, how can it consistently lend its publications "for the purpose of advancing the pecuniary interests of any inventor, patentee, originator, discoverer, manufacturer, proprietor, or advertiser"—no matter whether the article be mineral-water, wine, or food?

Very respectfully yours,

E. R. SQUIBB.

BROOKLYN, February 11, 1878.

[We are much obliged to Dr. Squibb for calling our attention to apparent inconsistencies in our remarks upon so-called "patented foods." He is certainly in error when he supposes that our criticisms upon this subject had any reference whatever to a previous action of the Society regarding the use of patent medicines, or of any patented articles for the exclusive use of the sick. On the contrary, we referred to the "food" as an entirely independent matter. We also stated at the time, that the "food" was patented only as to its method of manufacture; that its composition was no secret; that it was not a medicine, but a mere article of alimentation, and as such it did not come under the provisions of the code. Patented medicines and patented articles of ordinary commerce, are not convertible terms, as regards prohibition of their use according to the code. As far as any attempt at advertising the food was concerned, or of committing the Society upon its merits, we believe the author of the paper was above suspicion. The mere allusion to an article does not imply an attempt to advertise it. We understood him to recommend it, and incidentally to mention the name of the company merely because it was necessary to designate a particular article. But Dr. Squibb now states the fact, of which we were ignorant before, that such a precaution was not necessary, as at least two other companies manufactured virtually the same article. This, it strikes us, is the best reason why the name of a particular company should be omitted, and the best of excuses for the action of the Society. In any event, no company has a right to use for purposes of advertisement any recommendation thus made, without the permission of the author or of the Society.]

There is nothing in all this inconsistent with an unqualified endorsement of the recent resolutions of the County Society. A medical man may recommend an article to his professional brethren, because he knows it is good, and be perfectly indifferent as to the pecuniary interest of the proprietor. Everything depends upon the man who gives the recommendation or the certificate. The code is hardly competent to make any restriction upon such a practise, provided it is limited to professional channels, and for the ostensible purpose of advancing professional knowledge. Under such circumstances we have never objected to the publication of any *bona fide* certificates for mineral waters, wines, or other similar articles. Of course, it would be improper for the Society to lend its publi-

cations for the mere purpose of advertising the company in question, but we are scarcely willing to admit that the paper was presented for such a purpose. When these certificates or recommendations are published in the daily papers, the case is entirely different, as we have on previous occasions endeavored to prove.—Ed.]

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 9, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Feb. 2, 1878 .... | 0             | 10             | 93             | 5                          | 93       | 80          | 0          |
| Feb. 9, 1878 .... | 0             | 11             | 80             | 6                          | 99       | 73          | 0          |

THE LATE DR. E. R. PEASLEE.—The following were adopted at a recent meeting of the Faculty of Bellevue Hospital Medical College:

*Whereas*, In the wisdom of the merciful Father of all, it has seemed good to suddenly take from our midst our honored associate and co-worker, Prof. Edmund Randolph Peaslee; and whereas we, the Faculty of the Bellevue Hospital Medical College, desire to express our respect, esteem, and affection for his memory; therefore

*Resolved*, That we have received the intelligence of his death with heartfelt sorrow, and a deep sense of the greatness of our loss.

*Resolved*, That in future it will be our delight to recall the singular purity of a life in the presence of which the voice of envy was silent—a life nobly spent, unstained by meanness and falsehood, but beautiful in its private worth, and in its devotion to the highest aims of the profession in which he stood pre-eminent.

*Resolved*, That in his lifetime the wide-spread confidence he enjoyed and the many honors conferred upon him, were only the just rewards of his high attainments as a scholar, and his many and important contributions to science. His crowning work upon ovarian tumors stands almost without a rival in medical literature, in the high attributes of taste, judgment, and independent thought, and it behooves us, now that his record is finished, to proclaim, what he, with the modesty of greatness, left unspoken, his own distinguished part in placing upon a firm foundation the operation for the removal of ovarian growths, which is justly regarded as the foremost achievement of modern surgery.

*Resolved*, That in warm sympathy with his family, we direct that these resolutions be forwarded to them as a slight, though inadequate expression of our regard for our deceased comrade.

(Signed)

FORDYCE BARKER, M.D.,

ISAAC E. TAYLOR, M.D.,

WILLIAM T. Lusk, M.D.,

Committee.

The following resolutions were adopted by the students of Bellevue Hospital Medical College, New York, Jan. 26, 1878.

*Whereas*, We, the students of Bellevue Hospital Medical College, have learned with feelings of the most profound sorrow and regret, of the death of Professor Edmund R. Peaslee, whom we all so greatly admired for his superior qualities as a teacher, his virtues as a man, and his constant devotion to the interests of science and our profession; therefore, be it

*Resolved*, That in his death our school has lost an earnest and justly noted teacher; our chosen profession a faithful and untiring worker for its honor and advancement, and society at large an honorable and useful citizen.

*That*, while we deeply deplore our loss, yet we meekly bow in submission to the inscrutable will of a wise Providence who doeth all things well; and shall ever commend to others, and strive to imitate in our own lives, those estimable traits of character which rendered him so eminent and worthy of our emulation.

*That* we extend to the family of our lamented friend and teacher our heartfelt sympathy in this their sad bereavement.

*Be it further Resolved*, That a copy of these resolutions be given to the family of the deceased, to the secretary of our Faculty, and to the medical journals for publication.

CHARLES H. EAMES,  
D. SCOFFIELD,  
OSCAR A. KING,  
R. G. EBEIT,  
FREDERIC HENBERT LAY.  
*Committee.*

The following resolutions were adopted by the staff of the Woman's Hospital:

*Whereas*, It has pleased the Almighty in his infinite wisdom to remove from our midst our esteemed associate and fellow-laborer, Dr. Edmund R. Peaslee; therefore, be it

*Resolved*, That by his loss the medical profession of this city has been deprived of one of its ablest and wisest members; one who during his whole career has discharged all his functions with an unflinching devotion to duty, and won the respect and esteem of all who knew him.

*Resolved*, That in the death of Dr. Peaslee the Woman's Hospital in the State of New York has lost one who, by his devotion to its interests and untiring exercise of skill in its service, has contributed greatly to its efficiency and usefulness; and that its Medical Board has been deprived of a member whose judicious counsels, honesty of purpose, and amiability of disposition had peculiarly endeared him to his associates.

*Resolved*, That we tender our deepest sympathy to the bereaved family in their affliction; that these resolutions be published in the medical journals of this city, and that a copy of the same be sent to the family.

T. GAILLARD THOMAS,  
T. A. EMMET,  
*Committee.*

The following was communicated by the New York Obstetrical Society:

"The New York Obstetrical Society desires to give expression to the incomparable loss which it has suffered in the death of Dr. E. R. Peaslee, one of its founders and most distinguished members.

"We feel that he has, perhaps more than any one of its fellows, contributed to the elevated standard which the Society has acquired among its sister associations.

"The roll-call of the meetings will prove his most constant and continuous attendance, its record that

he has brought to its consideration rich funds of material from the fields of his wide and carefully studied experience.

"To the value of its discussions he has contributed eminently by his always luminous and logical statements, while his just and amiable temper promoted the harmony of its deliberations. The social element of the Society has been equally expanded by his store of wit and humor.

E. NOEGGERATH, M.D.,  
JOHN BYRNE, M.D.,  
W. M. CHAMBERLAIN, M.D.,  
A. J. C. SKENE, M.D.,  
*Committee.*"

**LIBERALISM IN HOMOEOPATHY.**—At a meeting of the Society held on the 8th of February, the following preambles and resolution, reported by Drs. Minor, Lilienthal, Dowling, McMurray, and Burdick, were adopted:

*Whereas*, There are some physicians who by injudicious action have bred dissension in our ranks, in which the utmost liberty of opinion and action should always prevail; and,

*Whereas*, We deprecate such action as neither conducive to professional harmony, nor tending to the advancement of medical science; therefore,

*Resolved*, That in common with other existing associations which have for their object investigations and other labors which may contribute to the promotion of medical science, we hereby declare that although firmly believing the principle "*Similia Similibus Curantur*" to constitute the best general guide in the selection of remedies, and fully intending to carry out this principle to the best of our ability, this belief does not debar us from recognizing and making use of the results of any experience, and we shall exercise and defend the inviolable right of every educated physician to make practical use of any established principle in medical science, or of any therapeutical facts founded on experiments and verified by experience, so far as in his individual judgment they shall tend to promote the welfare of those under his professional care.

ARTHUR T. HILLS, M.D., *Sec'y.*

**THE NEW MATERNITY HOSPITAL.**—The following gentlemen have been appointed *Obstetrical Surgeons* to the new Maternity Hospital, Blackwell's Island: Consulting, Isaac E. Taylor, M.D., Fordyce Barker, M.D.; Attending, T. G. Thomas, M.D., W. R. Gillette, M.D., W. T. Lusk, M.D., M. A. Pallen, M.D.

**DEATH OF WILLIAM STOKES, M.D., F.R.S., D.C.L., OF DUBLIN.**—This distinguished physician died in Dublin, January 7, 1878, in the seventy-sixth year of his age. He studied medicine in Edinburgh, Scotland, and took his diploma in 1825. Three years after he married and settled into practice, and at the same time he published his first work on the "Application of the Stethoscope to the Diagnosis of Thoracic Disease." This brought him into immediate recognition, and he soon commanded a large and lucrative practice. In 1837, he published his work on "Diseases of the Chest," and two years after received the honorary degree of M.D. from Trinity College, Dublin. In 1845 he was chosen Regius Professor of Physic to the University. In 1849, he produced the greatest and most important of all his works, "The Diseases of the Heart and Aorta." Oxford gave him the hon. D.C.L. in 1865, and Cambridge its hon. LL.D. in 1874. Edinburgh also followed with her LL.D.



## Original Lectures.

### DISEASES OF THE NERVOUS SYSTEM.

A LECTURE DELIVERED AT BELLEVUE HOSPITAL  
MEDICAL COLLEGE, DECEMBER 14, 1877.

By C. E. BROWN-SÉQUARD, M.D.

(Reported for THE MEDICAL RECORD.)

**SYMPTOMS OF DISEASE IN THE CONVOLUTIONS OF THE BRAIN—DO PSYCHO-MOTOR CENTRES EXIST IN THE CONVOLUTIONS?—ONE-HALF OF THE BRAIN REMOVED WITHOUT PRODUCING PARALYSIS UPON THE OPPOSITE SIDE OF THE BODY, BUT, ON THE CONTRARY, REMOVING THE PARALYSIS ALREADY PRESENT ON THE SAME SIDE OF THE BODY—PARALYSIS THE RESULT OF INHIBITORY ACTION—CLINICAL FACTS RELATING TO THE CONVOLUTIONS OF THE BRAIN—CONVULSIONS WITH DISEASE IN THE BRAIN—CURABILITY OF EPILEPSY DEPENDENT ON BRAIN DISEASE—THE AURA AND LOSS OF CONSCIOUSNESS—AN ATTACK OF EPILEPSY PRODUCED BY IRRITATING SOME PARTS OF THE SURFACE OF THE BODY—VARIETIES OF AURA—LOSS OF CONSCIOUSNESS.**

GENTLEMEN:—I have endeavored in preceding lectures to show that, although symptoms of disease of the brain are exceedingly variable, we can generally arrive at a correct diagnosis regarding the seat of the disease in that organ.

The portions of the brain which remain to be examined are the convolutions. The convolutions of the brain, certainly, are parts which produce exceedingly variable symptoms; so that, if you have to deal with a case of paralysis dependent upon disease located in those parts, you may have great difficulty in reaching a diagnosis regarding the seat of the lesion. Still there are symptoms which may lead to correct diagnoses, but before speaking of them there is one point to which, although it has been mentioned many times during this course, I must again revert, and that is whether or not the convolutions of the brain contain what has been called psycho-motor centres.

**DO THE CONVOLUTIONS OF THE BRAIN CONTAIN PSYCHO-MOTOR CENTRES?**

As you well know, within the last five or six years great efforts have been made by physiologists, first in Germany, then in England, in France, and finally in this country, to establish the fact that certain parts of the convolutions of the brain in front and behind the fissure of Rolando, and also those near the fissure of Sylvius, are those in which the will-power acts to produce voluntary movements.

The facts upon which these views have been grounded are extremely interesting, and indeed one in particular, that discovered by Fritsch and Hitzig, is extremely remarkable. It has been believed by physiologists and by physicians that the brain substance, in the central lobes at least, was not excitable under the application of any ordinary irritation, such as galvanic, mechanical, chemical, or traumatic. As you well know, when heat or cold, or pressure or irritation of any kind is applied to a nerve, or to certain parts of the spinal cord, or the base of the brain, they produce what are called reflex movements, and direct movement if the part irritated is directly motor. There is no doubt that, if we found such movements to follow irritation of certain parts of the convolutions of the brain, it would be established that those parts were

either excito-motor or directly motor. But it is not so. The only agent, thus far, which has been found to be able to produce movements when the surface of the brain is excited is galvanism. But galvanism produces a diffused effect, and its influence can be propagated to other parts, so that the movements which occur when the surface of the brain is excited at certain points do not show that those parts are psycho-motor centres. Again, the efforts which have been made to show that galvanism applied to the surface of the brain causes movements by irritation propagated to other parts, have shown that such propagation takes place irregularly, and is not constant.

There is no doubt at the present time, notwithstanding all the efforts of friends and pupils—efforts led in a measure by myself, although I was mistaken—there is no doubt that local irritation of the surface of the brain by galvanism may be followed by muscular movements, but there is nothing whatever which proves that those movements result from the fact that the part acted upon is a psycho-motor centre. We know perfectly well that irritation of the sole of the foot, for instance, and to use an oft-repeated illustration, produces contraction in the muscles of the face, but we certainly do not regard the sole of the foot as a psycho-motor centre, especially the motor organ that produces the appearance of laughter. The same method of reasoning applies to the convolutions of the brain; and, if galvanism applied there produces movements, there is no reason whatever to conclude, from that fact alone, that a motor centre has been acted upon. It may be that a motor centre has been excited, but it has been by a propagated influence, and a reflex action has been the consequence.

This view certainly is more in harmony with facts than the one generally admitted. If those parts of the brain were motor centres, certainly we should see movements produced by all irritants as well as by galvanism; and, also, when those parts are removed, of course the motor centres would be removed; there would always be paralysis which would be persistent. What is observed in animals is an apparent paralysis after the ablation of these parts, but, when we analyze this appearance of paralysis, it is found to be something like the general paralysis of the insane, in which the convolutions are inflamed, and in which there is also great irritation of other portions of brain tissue. You will find that it is a disorder in the action of the will, and not loss of power, that exists. There is no real paralysis in that case, and certainly the fact, if it lead to any direct conclusion, would show that the part removed was the part which served to maintain the equilibrium of the body, and not that which presides over voluntary motor action. Even the second conclusion, that the convolutions maintain the equilibrium of the body, is not correct, as you will see by this fact, that removal of only part of the pretended motor centre, leaving the greater portion undisturbed, there will be more disorder of movement than when all the organ is removed; there is no paralysis. In these two cases, one in which a portion of the motor centre is removed, and the other in which more than the entire organ is removed, there should be greater paralysis following the latter operation, if there is any difference at all. In many cases there is no appearance of paralysis.

**DISAPPEARANCE OF PARALYSIS UPON ONE SIDE PRODUCED BY REMOVAL OF ALL THE MOTOR CENTRES UPON THE SAME SIDE.**

It has been found that in cases of paralysis affecting one side of the body, if the so-called motor centres

upon the healthy side of the brain are removed, the paralysis first produced disappears. The experimenter should have found a second paralysis, and no influence whatever should have been exerted upon the paralysis first produced. This fact is decisive in showing that by removing so-called psycho-motor centres and by irritating another part of the nervous system, you can produce a cessation of the cause which produces the first disorder.

The experiment has been made of removing one-half of the brain, when paralysis appeared upon the opposite side of the body. The other half was then removed, and, instead of paralysis, such as was produced after the removal of the first half, the paralysis following the removal of the first half disappeared.

One-half of the brain was removed, and a paralysis followed apparently due to removal of voluntary motor centres; all had been carried away, but removal of the remaining half of the brain, instead of being followed by a second paralysis upon the opposite side of the body, was followed by cure of the paralysis produced by removal of the first half of the brain. This mode of treatment, however, I should not advise in the human species.

#### PARALYSIS CAUSED BY INHIBITORY ACTION.

From this experiment it can be seen that there is no reason to believe that paralysis depends upon loss of an organ employed by the will-power, and the result of an analysis of this experiment as well as the effect of disease, shows that paralysis, in most cases, is due to irritation which starts from the place where the disease is; from that point spreads its influence to many parts of the cerebro-spinal axis, and so produces by inhibition a cessation of the activity of those cells, and thereby produces paralysis.

#### CLINICAL FACTS RELATING TO THE CONVOLUTIONS OF THE BRAIN.

What are the clinical facts relating to the convolutions of the brain? One of the ablest physicians in Europe, Prof. Charcot, has shown from physical facts that certain parts of the convolutions of the brain possess more power than others in producing paralysis. There is no doubt but that disease in front and back of the fissure of Rolando, more frequently than in other parts, gives rise to paralysis. But when you study the facts, one after another, you will find but few among those given by Charcot, and aided by others scattered through the medical journals, which are in harmony with the admitted theory.

According to the admitted theory, the parts in front and behind the fissure of Rolando are those which serve chiefly for movements in the arm and the leg—that is, they are the psycho-motor centres for those parts of the body.

Still there are many cases in which disease has destroyed those parts without producing any marked paralysis. Certainly, such facts are quite sufficient to show that the conclusion reached is false.

Then if you will examine the facts which seem to be in harmony with the theory, you will find that in a great many cases disease occupying only a small part of this region in the brain has been followed by hemiplegia. In other cases we find that the face is paralyzed, together with the arm, while the lesion is in the part considered to be the motor centre for the leg. In fact, the discrepancies between the details of the cases and the conclusions drawn by many physiologists from experiments, are certainly quite decisive against the admitted theory.

Is it possible, however, to make a diagnosis of dis-

ease existing in the convolutions of the brain, even when the disease is elsewhere than in the so-called psycho-motor centres? It is so sometimes. If there is disease in the convolutions, together with paralysis, there is great probability that convulsions will occur.

There is scarcely a part of the brain which is more liable to produce convulsions than the convolutions. So much is this the case, that Wilkes, of Guy's Hospital, thought that epilepsy depended upon disease in the convolutions of the brain. I committed another mistake equally apparent, when I regarded epilepsy as always the result of disease of the membranes of the brain, either outside or in the ventricles. This view of mine found many facts in its favor, and other facts against it. It is quite certain, however, that both the membranes and the convolutions of the brain have some power in producing convulsions. So, if you find convulsions and paralysis, there will be some reason to examine further for the purpose of determining whether or not the disease is in the convolutions.

It is extremely frequent, in cases of extended disease in the convolutions, to find disorder of movements, if movement remains. The paralysis is not simply loss of voluntary action, but loss with some disorder of movement. Then, besides, this paralysis will be much more limited than for disease in other parts of the brain; it is generally limited to the arm, or at least chiefly marked in the arm. The arm is frequently paralyzed, without reference to the seat of the disease in the brain.

Moreover, the convolutions of the brain are employed, in a great measure at least, in the exercise of the noblest faculties of the mind; therefore, there should be some disorder of the mental faculties when they are the seat of disease. If the disease exists upon the left side of the brain, whether in the third convolution or elsewhere, there will be loss of memory of words. Very frequently there will be complete loss of power of expressing ideas by speech. There are, therefore, certain symptoms which show that the disease that produces the paralysis is in the convolutions of the brain.

Other features are very interesting. There is very frequently contracture—that is, rigidity—chiefly in the arm and upon the opposite side, if there has been prolonged disease, such as inflammation, tumor, etc. This rigidity Prof. Charcot has endeavored to explain on the ground of secondary degeneration, and he has the credit of showing that this secondary degeneration extends to the pons varolii, the medulla oblongata, and to the spinal cord, when the seat of the disease which produces the paralysis is in front or behind the fissure of Rolando.

#### PECULIAR SYMPTOMS.

Diseases in the convolutions also present peculiar features that assist in diagnosis. My friend and former assistant, Dr. J. Hughlings Jackson, was the first to clearly show the features which belong to these cases.

If epilepsy or only convulsions appear as the result of disease in the convolutions, it very frequently is the case that the arm especially, sometimes the leg, is seized by cramp preceding the attack.

Sometimes one muscle, sometimes many, will contract very firmly. Sometimes with such contractions there are peculiar sensations, as if insects are crawling over the surface, burning or pricking sensations, etc., occurring in the arm or the leg, and for a while the symptoms are localized in one limb only.

These features are not absolutely peculiar to disease in these parts, but certainly they occur by far



more frequently with disease there than elsewhere; so you will see that diagnosis of disease in the convulsions of the brain is possible, from the facts which have been stated. I cannot review all the symptoms which will conduct us to the cause of paralysis, but I will summarize them in as few words as possible.

If you find, with paralysis in the limbs, paralysis in the face upon the opposite side, you have reason to look upon the pons varolii as being the region in which the disease is located.

If you find paralysis with hemiplegia, then there is likelihood that the disease is in the tubercula quadrigemina.

If you find paralysis coexistent with complete loss of action in the third pair of nerves upon one side, the paralysis being in the limbs upon the opposite side of the body, then you have, in all probability, to deal with disease in one of the crura cerebri. These are the most important features, and those which are most frequently observed. As regards the details given in the preceding lectures, my time is too limited to give a complete summary.

#### CONVULSIONS ASSOCIATED WITH BRAIN DISEASE.

I pass now to the study of convulsions in connection with brain disease.

Convulsions, as you well know, may appear without epilepsy; they are certainly something quite distinct from epilepsy proper. The essential characteristics of epilepsy are recurrence by attacks with loss of consciousness. In fact, there is no need of any convulsions whatever to the existence of epilepsy. In *petit mal* there is no necessity for convulsions or rigidity of any muscle in the body. There may be a mere cessation of consciousness, from many causes, but for the existence of epilepsy there must have been a few such attacks. As you well know, loss of consciousness itself cannot characterize epilepsy. If, however, there is no syncopal state, the heart continues to beat, and in a number of attacks there has been loss of consciousness, then the patient has epilepsy. In almost every case, in fact, in my long experience, I have rarely seen a case in which there was not convulsive movement of some of the muscles of the face or neck, and although there may be such cases, epilepsy is, however, usually characterized by these two series of manifestation—loss of consciousness and two kinds of convulsions: 1. Tonic spasms, manifested almost invariably in the beginning of the attack; and 2. Clonic convulsions. These two varieties of convulsions, existing in succession, accompanied by loss of consciousness and occurring in repeated attacks, make complete epilepsy.

But in brain disease we very frequently do not have to deal with epilepsy proper when the patient has convulsions. Frequently, convulsions exist without loss of consciousness. In idiopathic epilepsy the convulsions are almost invariably upon both sides of the body; both sides act alike. In convulsions dependent upon brain disease, it is very rarely the case that both sides of the body are affected. Convulsions occurring upon one side of the body may, therefore, lead to the suspicion that there is brain disease existing as the cause.

Still more, convulsions limited to one arm or leg, or to one side of the face, to some muscles of one eye, very frequently depend upon brain disease, and you do not see such convulsions in idiopathic epilepsy.

Again, in most attacks of epilepsy caused by brain disease, what was described by Galen and other phy-

sicians of his day, namely, an *aura*, occurs before each attack.

#### CURABILITY OF EPILEPSY DEPENDENT UPON BRAIN DISEASE.

There are other important features of epilepsy dependent upon brain disease, and one especially to be mentioned is its curability.

We can hardly say that one out of many hundred cases of idiopathic epilepsy is ever cured.

When epilepsy depends upon disease in certain parts of the brain, especially when the base of the brain is diseased, it can sometimes be cured rather rapidly: that is, we can rather rapidly prevent the manifestations of the disease. Do not understand that I mean the patient can be removed from danger very quickly, for he is liable to attacks of epilepsy for perhaps two years after all manifestations of the disease have been prevented, and apparent cure has been effected within two weeks.

There is no doubt that epilepsy dependent upon brain disease is caused simply by irritation of certain parts over which a great and controlling influence is exerted by two modes of treatment. I think the time is not far distant when we may be able to do for paralysis as much as we are now able to do for epilepsy. For, according to the doctrine which I have here taught, paralysis is nothing more than a manifestation of irritation the same as epilepsy.

If irritation, starting from disease, goes in a certain course, it will produce an inhibitory effect—produce a cessation of activity—and then there is paralysis. If the irritation goes to cells which are able to produce reflex action, instead of to motor cells, then convulsions will be produced. In both cases the same thing exists at the beginning, and certainly what is essential in both cases is identical; that is, irritation starting from a diseased part. Such irritation is propagated to other parts, and produces either paralysis or convulsions, according to the properties in the part upon which it acts.

If, therefore, we can cure epilepsy dependent upon brain disease, why cannot we find means to cure paralysis dependent upon a precisely similar cause? What has been found out as regards anæsthesia is most important in this respect.

#### THE AURA AND LOSS OF CONSCIOUSNESS.

I pass now to the study of some of the features which may lead to diagnosis in cases of convulsions due to disease in the brain, as well as to other forms of epileptic manifestations.

These features are chiefly the *aura* and the loss of consciousness; there are also one or two other points.

As regards the *aura*, I wish that every young man, if not others, would study every case of epilepsy thoroughly and carefully, to ascertain whether or not what I have to say exists. It is true that it is very difficult for the busy practitioner to examine every part of the surface of the entire body, from the nails of each extremity to the trunk, and then the entire trunk, etc., and I confess that I have not taken the trouble to do it, yet I think we fail as physicians to perform our duty to our patients by such neglect.

#### IRRITATION OF CERTAIN PARTS MAY PRODUCE AN EPILEPTIC SEIZURE.

I will state the facts which have led me to make these remarks. I have ascertained many times that there are certain parts of the body, in epileptics, which, when irritated by one means or another, give rise to the beginning of an attack, and sometimes to a full

attack, of the disease. I have not dared to push the irritation so far as to produce an attack, yet in a few cases, and in a few only, an attack has been produced in this manner. Indeed, I do not wish ever to produce an attack; still, it is important to determine whether we have to deal with epilepsy dependent upon organic disease in the brain, or some other kind of epilepsy.

The importance of being able to determine whether an attack can be produced by irritating the part from which the *aura* starts, or by irritating some particular part of the body, is very great. For if it is found that there is a place, either with or without an *aura*, which, when irritated, gives rise to an attack of loss of consciousness and convulsions, it will be found that counter-irritation has great power in effecting a cure in those patients. So if you ever have the misfortune to produce an attack of epilepsy in this manner, the patient may be repaid, inasmuch as counter-irritation, applied near that part, may be the means of curing or diminishing the severity of the disease.

The *aura* may appear in any part of the body, so it is thought that irritation of the skin upon the back of the neck, under the ear, upon the back at the level of the first and second dorsal nerves, upon the limbs, in some cases upon the breasts, and many other places, may be a means of cure for epilepsy.

#### VARIETIES OF AURA.

The *aura* may vary immensely when due to organic disease in the brain. It may be a mere sensation, or some peculiar muscular movement. I had a case in London in which there was a sudden and irresistible contraction of the bladder two or three hours before an attack, such as to cause the urine to flow out with great rapidity.

There is no muscle in the body which cannot be specially affected under such circumstances; and the muscles of the arms, of the abdomen, of the chest, etc., may contract the same as did the muscle in my patient's bladder.

As you know, there are muscular fibres in the walls of the blood-vessels, and these may contract some time before the occurrence of an attack of epilepsy. If this occurs in the blood-vessels of the face, there will be marked paleness in that part before the attack.

It matters not when such contraction of blood-vessels takes place, there is a diminution of temperature, and if the part is superficial, a marked paleness can be observed.

There is, therefore, a kind of *aura*, which consists in muscular contractions in various parts of the body. The important point, for the sake of applying means of treatment, is to determine whether irritation of a certain place constantly produces an attack, or at least the place is one in which very frequently some action takes place before the occurrence of an attack. If such is the case, there is good prospect of giving relief by applying counter-irritation near the affected part.

There is another kind of *aura*, which may be called an *aura of sensation*. This sensation is exceedingly variable. Generally, however, it consists in some indefinite feeling; most epileptics will say that they cannot describe the sensation. The peculiarity is, that the sensation is like itself and like nothing else. It is a distinct feeling that belongs to that peculiar state. Some physicians have endeavored to restrict the application of the term *aura* to this peculiar sensation, but it should be applied to either any peculiar muscular movement, or to any peculiar sensation which constantly takes place before the occurrence of the attacks.

If the *aura* takes place some time before the occurrence of the attack, there is a very fair chance indeed of saving the patient from the fit.

Of the means of treatment to be employed, I will speak in my next lecture.

#### LOSS OF CONSCIOUSNESS.

I pass now to the explanation of the loss of consciousness associated with disease in the brain.

In 1857, in this country, I tried to show, what is now admitted by physiologists and physicians, that the loss of consciousness is the result of contraction of blood-vessels in the central lobes. I am very sorry that my views have been followed in that respect, for I think now that it is only partly true, if true at all. It is quite certain that the blood-vessels in the brain contract, so that the fact itself is out of the question; but neither in the case of loss of consciousness in epilepsy, nor in sleep, as maintained by Dr. Hammond, is that contraction essential. The contraction of blood-vessels in the cerebral lobes is not essential to the production of sleep. For in animals both sympathetic nerves have been divided, giving rise to dilatation of the blood-vessels and consequent congestion in the cerebral lobes, and yet sleep took place just as completely, perfectly, and refreshingly, as if nothing had been done; as if the blood-vessels contracted. So it is clear that, although contraction of blood-vessels is something that occurs during sleep, it is not the something which causes sleep, and it is not essential to the existence of sleep. To employ remedies, therefore, which we know to produce contraction of the blood-vessels in the brain, with the view of producing sleep, is all wrong.

The cause of loss of consciousness in epilepsy will be considered in my next lecture.

## Original Communications.

### CLINICAL CONTRIBUTIONS.

By D. B. ST. JOHN ROOSA, M.D., AND EDWARD T. ELY, M.D.

THE following are a few cases lately observed in private practice:

#### METASTATIC CHOROIDITIS.

In the following cases the diagnosis of metastatic choroiditis was made. It is regretted that, owing to the pressure of other work, the histories were not more fully recorded. However, as no doubt was felt about the diagnosis, they may be of some value, although so incomplete. The first patient was seen through the courtesy of Dr. Oscar Rieffel, who was also kind enough to furnish some notes regarding her illness.

Mrs. F., aged 42. Was confined Jan. 4th. Five days after delivery she became "feverish"—according to the story of the midwife who attended her. She also had profuse uterine hemorrhages. On the tenth day she was seen by Dr. Rieffel, who found her suffering from septicæmia and endometritis, and who removed a piece of retained placenta, about the size of an orange and extremely putrid. On Jan. 23d one of her eyes became inflamed, and on the 24th she was found to have suppurative choroiditis. The lids and conjunctiva were very œdematous, the vitreous cloudy, and vision reduced to perception of light. She was



directed to use cold applications, atropine, and such general measures as seemed indicated. The disease ended in panophthalmitis, rupture of the globe, and atrophy. At one time there was exophthalmos from orbital cellulitis, and pus was evacuated through an opening made in the conjunctiva over the insertion of the external rectus muscle. At the time the ocular inflammation appeared there was also a suppurative inflammation of one of the knee-joints, which had begun two days before. On Feb. 12th, Dr. Rieffel ceased his visits at the request of the patient, who considered herself out of danger. After five days he was recalled to find her much worse. On March 7th she died. The inflammation of the eye lasted about three weeks.

The next case was seen with Dr. W. J. Welch.

Sister of Charity, aged 46. Had a severe attack of croupous pneumonia in the left lung, in January. On the eighth day of the disease, signs of cardiac distress suddenly appeared, the heart working slowly and intermittently. This condition continued five or six days; recovering then under the use of stimulants. Convalescence then progressed slowly. One day, in the third week of her illness, she felt pains in her left eye, "as if a knife were being run through it." The next day the eye appeared inflamed, and on the day after that, "the sight was gone." At the first consultation she presented the symptoms of suppurative irido-choroiditis. There was great chemosis, and some pus in the anterior chamber. She was treated by cold applications, atropine, paracentesis of the cornea, etc. The disease ended in atrophy of the globe.

At the time the eye became inflamed the patient also complained of *soreness* about the right shoulder-joint, and extending down the arm. This continued to annoy her for about six weeks. There was some tenderness about the joint, but no swelling.

The third case was one seen in consultation with Dr. J. L. Campbell, who has kindly furnished notes of the previous history:

Mrs. W., aged 33. Was confined Oct. 4th. One week later she was attacked by fever, typho-malarial in type. On the 16th she complained of a sudden, sharp pain in the right eye, and on the same day she found that the vision of that eye was wholly lost. When seen by Dr. C. three days later, there was extreme congestion of the conjunctiva, and marked chemosis. There was also exophthalmos, which increased for the next four or five days, and then began to subside. The onset of the disease was not marked by a chill, and there was not very severe pain at any period. The eye was treated with atropine and warm applications. A week after the eye became inflamed, an acute synovitis of the left knee-joint, with effusion, appeared.

To-day, Oct. 27th, the right eye presents a turbid cornea, irregular pupil, and opaque vitreous. Some exophthalmos. No pain. No perception of light.

The striking feature of these cases is the fatal result to the eye, to avert which, all treatment seems to be powerless. If there be an incipient stage of hyperæmia of the choroid or retina, which might be combated by local antiphlogistics, it is not known. When the attention is first called to the eye, suppuration has already occurred, and then treatment can only be palliative. Physicians attending patients with symptoms of blood-poisoning, may, perhaps, by very careful observation and daily inquiry as to the condition of the vision, soon settle this point, and, possibly, a treatment may be suggested that will prevent the fatal formation of pus in the eye.

#### ANÆMIA OF RETINA—CONCENTRIC LIMITATION OF VISUAL FIELD—EFFECTS OF QUININE.

Dr. A., aged 27. March 10, 1876. Says that he was "totally blind" for half an hour this morning, just after breakfast. When vision returned it was very much blurred. For an hour or more could only see the lines in a newspaper, being unable to distinguish any of the letters. Sees very well now (11 A.M.) but objects still appear somewhat blurred. Complaints of nothing else. Is subject to neuralgia. Has shortness of breath after exertion. Has had rheumatism. Has a heart-murmur, which has been pronounced to be mitral regurgitant by one authority, and anæmic by another. Works hard. Sits up very late at night. Smokes a great many cigarettes. Looks pale.

V =  $\frac{3}{4}$  both eyes. Accommodation normal. Visual fields contracted concentrically. Nothing seen by ophthalmoscope, except that retinal arteries appear small, and capillary circulation in optic discs deficient (?).

Directed to stop smoking and to take ten grains sulphate quinia.

March 16th. Feels the same. Quinine appeared to have no effect. Visual fields the same. Vision 1.

March 18th. Visual fields the same. Took 15 grains of quinine at 11.40 A.M. No immediate effect. Took 15 grains more at 12.15. At 12.30 had flushing of face, suffusion of conjunctivæ, ptosis right upper lid, and slight tinnitus aurium. Says that face feels swollen. Pulse 108, same as before medicine was given. No change in visual fields. No change can be detected in fundus.

March 29th.—Has been in the country since the 18th. Feels very much better. Has had night-blindness while away. Noticed it the first night of his absence, when he walked out before dark, and was unable to find his way home again without assistance. Thinks he would be troubled in going about at evening now, if it were not for the street-lamps. Sight is clear during the day: V = 1. Fields, *normal*. Right field larger than on March 16th by 10 inches in vertical, and 13 inches in horizontal diameter. Left field increased 5 inches in vertical, and 11 inches in horizontal diameter.

October 16th.—The patient continues to use tobacco, and to suffer from visual symptoms; *i. e.*, he complains of want of sharpness of vision, and also of inability to continue work with his eyes. Has an anæmic appearance. Ophthalmoscope shows appearances of slight latent hypermetropia, and the patient's asthenopia is partially relieved by convex glasses.

#### A POLYPUS IN THE EAR FOR FORTY YEARS (?)

In the following case it seemed probable, from the patient's statements, that there had been a polypus in his ear for about forty years. During that period there had been constant discharge from the ear, and, in cleansing the ear, etc., the patient had felt something obstructing the canal.

Mr. H., aged 56. Says that he has had a discharge from his right ear ever since he was a small boy. He has "felt something filling that ear" since the age of 15. Never has had any examination or treatment.

H. D.: R. E.,  $\frac{0}{40}$ ; L. E.,  $\frac{40}{40}$ .

Tuning-fork heard better on right side.

A large polypus was seen filling right external auditory canal, and attached to the upper and posterior walls. It was removed by a snare, and the space behind it was found packed full of dried secretions. After removing the latter, the drumhead was seen to be cicatricial, and without any perforation. The

patient was seen twice after this, and roughened bone detected just at the junction of the cartilaginous and osseous canal. The patient was rather attached than otherwise to the polypus, and seemed to regret its removal. He has not been seen since the third visit, when there was a slight discharge from the diseased part.

ACUTE CATARRH OF THE MIDDLE EAR, CAUSED BY  
SNUFFING WATER UP THE NOSTRILS.

No further proof is needed of the danger of introducing fluids into the nostrils, and the following case is reported only because its features are so clearly marked. The fact that the patient had already lost the function of one ear in a similar way gives additional value to his testimony. The use of the nasal-douche and its modifications has been much debated, and is still a question of controversy. It is freely granted that it may be used by the *surgeon himself* upon hundreds of cases without harm, as has been shown in a recent paper by Cassells.\* The only point ever sought to be established by the writer is that this therapeutic measure cannot be safely entrusted to patients. The very best of them are often incompetent to remember and carry out the various "precautions" given them, and, in this sense, it is impossible always to tell beforehand that your case is a "proper" one to be allowed to apply the remedy for himself. Moreover, in some cases, harm has certainly resulted where every direction was followed by the patient, and even where the operator was an educated physician. Thus a certain small percentage are constantly suffering injury, which to one placing a high value upon an ear, is not compensated for by all the advantages which this treatment of naso-pharyngeal catarrh is supposed to offer.

Mr. F. was snuffing water up his nose on account of nasal catarrh, and, while blowing it out again, he "felt a drop enter the right ear." Had pain in that ear immediately (this was at noon), which increased in severity, and at midnight was unbearable. Took large doses of morphine with only partial relief. Next morning he applied for advice, and was found to be suffering great pain, with some fever. The right auditory canal was red and swollen at the bottom, and the drumhead very red and somewhat bulged outwards. H. D. was  $\frac{1}{40}$ . A paracentesis of the drumhead was made at once, and the hot douche ordered to be used every hour. Immediately after the operation the pain disappeared, and did not return until five days later, when it was relieved by leeching. Under the usual treatment the inflammation subsided, and the hearing was restored. The water which was used in the nostrils was cool and not medicated.

Four years ago this patient felt water enter his left ear while using the nasal-douche, and had acute catarrh of that ear, followed by suppurative and deafness. The H. D. on that side was  $\frac{1}{40}$ , and the drumhead was cicatricial.

INJURY OF AUDITORY NERVE BY A BLOW FROM A FUR  
GLOVE (?)—EFFECTS OF STRYCHNIA.

The following case presents symptoms of disease of the middle ear as well as of the auditory nerve. The points of interest are regarding the causation of the latter, and the effects of treatment.

Mr. H., aged 35. Says that four years ago he was struck on the right ear, with a fur glove, in sport. The blow caused no pain, but occasioned a sensation like that of an electric shock running through the

whole right side of his body. Noticed deafness and tinnitus on the right side *immediately*. Feels sure that the deafness and tinnitus were caused by the blow from the glove. Never noticed anything wrong about his ears before. Two years ago he noticed deafness and tinnitus on the left side, which have increased since. Never has had pain or discharge in either ear. Says that he hears somewhat better when riding in the cars. Music sounds *false* to him. General health good. Never has noticed any catarrhal trouble in the throat.

H. D. : R. E.,  $\frac{0}{40}$ ; L. E.,  $\frac{P}{40}$ . Voice, 1 foot behind back.

Tuning-fork heard better on left side.

Right drumhead : Sunken ; only upper part of malleus seen : atrophy, outer and middle layers ; reddish color.

Left drumhead : Sunken ; diffuse light-spot ; loss of translucency.

After being treated for a short time by hypodermic injections of strychnia, the voice was heard at ten feet, and the watch as before. The patient then passed from under observation, so that it is not possible to say whether the improved hearing was permanent, and whether it was really due to the strychnia. Inflation was tried without benefit.

INJURY OF THE COCHLEA FROM CANNONADING—  
EFFECTS OF QUININE ON THE EAR.

The following case was considered to be one of chronic catarrh of the middle ears, with affection of the cochlea. While under treatment it happened to furnish an illustration of the effects of quinine upon the ears.

Dr. P., aged 51. In 1870, was exposed to heavy cannonading, after which he had sudden tinnitus and impairment of hearing on both sides. These symptoms passed away in great measure within a short time. Since then he has had the tinnitus only occasionally. The deafness has not been enough to annoy him until lately. Thinks the right ear has always been the worse. A year and a half ago he noticed that he heard the *click* preceding the striking of his clock, but did not hear the strike. Now he hears the strike, but not the click. Hears worse in a noisy place. Has been troubled with irritation and excess of secretion in pharynx for a long time. Health otherwise excellent.

H. D. : R. E.,  $\frac{1}{40}$ ; L. E.,  $\frac{5}{40}$ . Voice, 50 feet behind back.

Tuning-fork placed on teeth is heard alike. Plugging either ear makes no difference. Placed on forehead or vertex is heard alike, but better on left side when plugged. Placed on mastoid heard better on left side than on right; plugging left ear intensifies sound of fork; plugging the right ear makes no difference. All the notes of a piano are heard well with the left ear. The right ear has partially lost its perception of some of the lower and some of the upper notes, but hears the others well.

Right drumhead : Opaque. Light-spot, narrow and divided.

Left drumhead : Opaque. Good light-spot.

Pharynx catarrhal.

Inflation for three weeks improved the hearing for the watch to  $\frac{5}{40}$  on both sides.

One morning, while under treatment, the patient came complaining of great "stuffiness" and tinnitus in both ears. During the preceding twenty-four hours he had taken 38 grains of quinine for neuralgia. The hearing for the watch was  $\frac{1}{40}$  R. E., and  $\frac{3}{40}$  L. E. There was intense redness along each malleus-handle.



(The day before the hearing had been  $\frac{8}{40}$  each side, and no redness of the drumheads existed on that day or had ever been seen before.) Inflation did not improve the hearing at all, although it had never failed to do so before. At the next visit the conditions were as usual.

Several weeks after stopping treatment, the hearing had relapsed to its former state.

**INFLAMMATION OF MIDDLE EAR—IMPACTED WAX—REMOVAL OF WAX CAUSING ACUTE INFLAMMATION OF THE EXTERNAL AUDITORY CANALS, AND SUPPURATION OF THE MIDDLE EARS WITH POLYPI.**

The following case illustrates the difficulties occasionally found in removing impacted wax. The inflammation of the canals and tympanic cavities was not due to the use of any unusual mode of treatment, or to any lack of care and gentleness. The treatment was fully justified by its results.

John M., aged 13. Jan. 4, 1877. Had a severe attack of inflammatory rheumatism (chiefly confined to legs) four years ago, and after recovery was found to be deaf. Deafness has increased slightly since. Never had any trouble with his ears before. Never has had any pain or discharge. Is a pale, delicate boy. Poor appetite. Has slight cough, and is short of breath sometimes. Has systolic cardiac murmur. Is petted, and allowed to remain indoors a great part of his time. His mother says "he is not like other boys," and she thinks this is partly due to his poor hearing.

H. D. R.,  $\frac{2}{40}$ . L.,  $\frac{2}{40}$ .

Tuning fork heard better in right ear.

Hard wax at bottom of both canals, preventing view of drumheads. Wax very light-colored, and has scaly appearance.

Ears syringed, with no effect.

Jan. 8th.—Ears syringed daily at office since the 4th, with no effect. To-day syringing caused vomiting. A few small flakes of wax were removed.

Jan. 10th.—Ears syringed for a long time, and probe used to loosen wax. Very few small pieces of wax removed.

Jan. 15th.—Ears syringed at home with warm water and soda, every day since the 10th, with no effect. Syringing and probes at office to-day, with no effect.

Jan. 31st.—Has not been seen since the 15th. Had pain in ears for several days after last visit, and parents have been "afraid to bring him out-doors, because he was so weak." Syringing has been continued daily at home, but no wax has come away. There is now a discharge of pus from left ear, and granulations filling bottom of canal. Wax in right ear looks the same. Canals red and swollen. R.,  $\frac{c}{40}$ .

L.,  $\frac{p}{40}$ .

Feb. 6th.—Not seen since January 31st. Been kept at home "on account of his being so weak." Polypus filling left canal. Removed by snare, and a mass of wax, exfoliated epidermis, and pus found behind it.

Feb. 8th.—Discharge of pus from both ears. Wax and granulation in both canals, concealing tympanic cavities.

Feb. 19th.—Canals thoroughly cleansed for the first time. Patient has had severe pain several times, requiring hot douche and leeches. Large granulations at bottom of each canal. R.,  $\frac{c}{40}$ . L.,  $\frac{a}{40}$ .

From this time the usual treatment for suppuration of the middle ear was pursued. The patient took cod-liver oil and iron, and was kept out-doors as

much as possible. Enlarged tonsils were cut off with McKenzie's tonsillotome.

April 27th.—Both drumheads healed. R.,  $\frac{8}{40}$ . L.,  $\frac{2\frac{1}{2}}{40}$ . Ordinary conversation 30 feet behind him is heard with ease. Has gained in flesh and color. Enjoys being out of doors and playing with other boys.

Nov. 15th.—R.,  $\frac{4}{40}$ . L.,  $\frac{2\frac{5}{40}}{40}$ . No treatment since last May. Has a cold. Otherwise, remains well.

It is assumed that this was a case of impacted wax, supervening upon subacute catarrh of the middle ears and that the acute inflammation of the auditory canals and tympana was induced by the efforts to remove the wax. It is believed that an inflammatory origin will be found in many, if not in all cases of inspissated cerumen.

## THORACENTESIS.

THE ASPIRATOR, THE TROCAR AND CANULA, OR THE FREE INCISION?

BY FRANKLIN STAPLES, M.D.,

WINONA, MINN.

THE RECORD of January 5th contained an interesting and practical article on thoracentesis, by Chas. W. Packard, M.D., of New York.

Dr. Packard gives four cases: First, that of a woman, aged 48, who had suffered with pleuritis ten days, and was dying from the immediate effects of a large pleuritic effusion. The fluid, which was serous (not purulent), was removed by aspiration. Great and immediate relief followed, and we are led to infer that recovery took place. The second case was that of a young married woman of very stout habit, admitted to the hospital six weeks after being attacked with pleuritis. It is stated that, when first seen, the patient was in a "bad way;" was moderately cyanotic; was constantly expectorating pus in immense quantities. Sixty-four ounces of pus were drawn off by aspiration; air rushed in through the opening that had been formed between the pleural cavity and the bronchial tubes, and pneumothorax took the place of the previous pyothorax. Moreover, the pus could not all be pumped out, and, although some temporary relief had been gained, shortly the symptoms were aggravated, and septicemia threatened. A free incision was now made, the pus drawn off, and the cavity washed out through a flexible rubber tube with a weak solution of carbolic acid. This treatment was continued for a short time, and recovery resulted. The third case was that of a child, 7 years old, from whose chest nine ounces of pus were aspirated, and cure afterwards resulted in the case by the spontaneous evacuation of the pus through the lung and bronchial tubes. In the fourth case, a young man had been ill for two months. Seventy-two ounces of laudable pus was removed from the pleural cavity by aspiration. The patient was relieved, but in three or four weeks the pus had reaccumulated, and a free incision two inches long was made between the eighth and ninth ribs, and 100 ounces of pus were removed. The carbolic solution was injected daily; treatment continued for several weeks, and recovery took place.

The brief comments here submitted upon the excellent article of Dr. Packard are for the purpose of getting light on the following practical questions: In the operation of thoracentesis, shall we use the aspirator, according to Bowditch, or the trocar of Trousseau, or make the free incision with the bistoury? or, if different cases and conditions require different operative

treatment, then what, if any, general rule shall guide us?

Dr. Packard says: "If repeated operations are necessary, it becomes a question whether aspiration should not give place to the operation by incision."

"If the secretion of pus is itself decreasing, and the constitutional disturbance is moderate, and especially in a young subject, we have reason to hope for an ultimate cure by aspiration. If, on the other hand, the pain and constitutional irritation continue severe, and the pus rapidly reaccumulates, I think there is no question that the pleural cavity should be opened by an incision large enough to admit of a ready evacuation of its contents, and of the manipulations necessary in washing it out, if the pus should be of an irritating quality."

Now, in place of the foregoing, I would offer the following amendment, making the line between the different operations to be more arbitrary, and as follows: If the contents of the pleural cavity is serum, I would always aspirate; but, if it is pus, I would always use as large a trocar and canula as possible, or make a free incision with the knife, and then use the antiseptic wash, as described in the cases given above. In most cases the aspirator may be first used to test the character of the effusion. With our present facilities for the antiseptic treatment of disease, and for preventing infection in surgical operations, we are able to more than compensate for any evil resulting from the admission of air into the suppurating pleural cavity. In fact, the operation for the relief of pyothorax should be performed as much for the purpose of disinfecting the diseased cavity as for merely evacuating its contents.

Again, on the question of the time for operative measures to be resorted to, Dr. Packard's article has the following: "The time for interference must differ with differing cases. A latent pleuritic effusion, the result of a low grade of inflammatory action, and containing very little fibrin, while all the more likely to degenerate into pus, will not make many or strong adhesions, and, in this respect, may safely be left for weeks." [Query—What is the advantage of leaving such a case for weeks? Surely the risks of thus leaving it are greater than any incident to the early use of the aspirator?] "But," says the article, "an acute pleurisy is a different thing, and I think three weeks is the outside of safety against the formation of permanent and disastrous adhesions." [Query—Is it not well to avoid the outside limits, and relieve the oppressed absorbents while their action may yet be restored, and while the effusion is yet only serous in character?] As for evidence of the correctness of the views here given, both concerning the kind of operation and the best time for operative interference, the reader is referred to the history of every case given in Dr. Packard's article. I will add the brief notes of two cases, the history and results of which show the advantage of the use of the open canula and the antiseptic washings in advanced pyothorax.

I. A young man, 19 years old, the son of a farmer, presented himself for treatment in June, 1874, having ten weeks before suffered from a severe attack of pleuro-pneumonia, while at work in the woods away from home. There was emaciation, with great exhaustion, dyspnoea, a rapid and feeble pulse, septicæmia, swelling of the feet, and the physical signs of an immense accumulation of fluid in the right pleural cavity. Paracentesis was performed by means of an aspirator, and five pints of fetid pus drawn off, no air being allowed to enter the cavity. The operation was repeated four times in four weeks, and an average of four pints

drawn each time. At the second and fourth operation blood was mingled with the pus in the receiver of the aspirator. The blood was fresh and readily coagulated. Any attempt to exhaust the gas from the cavity, by continuing to work the aspirator after the pus had ceased to flow, caused distress to the patient, and a renewal of the hemorrhage. Each operation in a measure relieved the more urgent symptoms of dyspnoea and septicæmia, but at the end of the month the patient was unable to move in bed unaided, suffered from hectic, was extremely emaciated, and was evidently failing. I now adopted the plan of drawing the pus through a large canula without the aspirator, and of performing the operation as often as every second or third day, and, after a short time, every day, allowing each time the free ingress of air. A very weak solution of carbolic acid in warm water was used as an injection at each operation, a small quantity of the wash being thrown in, and this drawn off, and then another injection made until the fluid drawn was quite clean. The patient was kept up on wine, iron, and quinine, and upon animal food, consisting largely of wild game. From the time of the change of treatment from the use of the aspirator to that of the simple canula, and of the more frequent performance of the operation, with the use of the antiseptic wash, there was steady improvement in the condition of the patient, but recovery was slow, and the adhesions were such as never to allow the lung to expand to any considerable extent. At the end of eight months the thorax was an inch less in circumference on this side at the level of the nipple than on the other side, and a line through the chest, from the nipple backwards to the lower angle of the scapula, is at least an inch shorter than the same on the other side. My notes at this time, eight months after the first aspiration, state that the canula is at present introduced morning and night, and about three or four ounces of purulent serum drawn at each time. A careful record of the amount of pus obtained, and which has varied in quantity at different times, has been kept, and the aggregate is upwards of 100 pints. Carbolic acid, chlorate of potassa, port wine, and the permanganate of potassa have successively been used in the injections. Cod-liver oil, with the phosphate of lime, has been given largely, together with quinine and the mineral acids. Three years and eight months have now passed, and there is yet a fistulous opening communicating with a small cavity. Of late a silver tube has been worn, allowing the slight discharge to take place constantly, and there is evidence of a more rapid diminution in the size of the cavity since the maintenance of this constant drainage. It is probable that an excision of a section of the rib at the place of the puncture, thereby allowing a more free and constant evacuation of the pus, would have hastened the process of cure.

II. Dr. M. Hagan, of St. Paul, Minn., reports a case in which he performed thoracentesis in a man who had been attacked with pleuro-pneumonia one month before. Two quarts of pus were drawn at the first operation with the trocar. A piece of gum elastic catheter was used as a permanent drainage-tube. After two or three days the cavity was washed out with the carbolic acid water, and several days after a weak solution of sulphate of zinc was used as a wash alternately with the carbolic acid. At the end of six months the discharge was reduced to about a half ounce daily. In one year the patient had nearly recovered, the lung had expanded, but there was still a slight discharge of purulent matter from a small pocket which seemed to be gradually closing.

In the light of our experience it is fair to conclude,



first, that, if in these cases the aspirator could have been used early, while effusion was yet serous, many months of suffering and great risks to life would have been prevented; and, second, that, in the late operation, only the free evacuation, permanent drainage, and antiseptic treatment were admissible.

## INTESTINAL OBSTRUCTION

SUCCESSFULLY TREATED BY THE INJECTION OF LIQUID EFFERVESCENT SOLUTIONS.

By P. A. HARRIS, M.D.,

DOVER, N. J.

G. Y., æt. 25, American, laborer; when first seen, on the 12th of July, 1877, was suffering most excruciating pain in the hypogastric region, just to the right of the median line. It commenced two days previous, and had grown more and more severe. He stated that nothing had passed his bowels for three or four days; that a doctor had been in attendance for two days, and was discharged previous to securing my services. The physician had diagnosed the case as one of obstruction of the bowels, and the treatment had consisted of large and repeated doses of physic.

Upon examination I found marked tenderness at the seat of pain, but no appreciable swelling at that point. There was frequent vomiting, but it was not stercoraceous in character. I placed the patient in the knee-chest position, and used large injections of warm soapy water. Cathartic doses of calomel were given at regular intervals for two days, with negative effect. This was followed by varied treatment, consisting of forcible injections of air, of warm water in the knee-chest position, of hot water under chloroform anaesthesia, and a variety of cathartic enemata, all of which proved inefficacious. Subcutaneous injections of morphia were given to relieve the severe pain. On the 15th there was stercoraceous vomiting; on the 17th the abdomen first began to be tympanitic. The tympanitis continued to increase until the 19th, when the pulse became very weak, the countenance anxious, with marked general emaciation.

Dr. Crittenden, who had seen the case several times with me, kindly called my attention to a case then recently reported from Dr. Southey's clinic at St. Bartholomew's Hospital, London, in which a patient had been successfully treated for intussusception by the force obtained from the disengagement of gas from a syphon bottle of soda-water. With a view of employing the same principle by a different method, I made a few experiments at my office with tartaric acid and the bicarbonate of soda, obtaining thereby an approximate estimate of the respective quantities of these reagents required in solution to disengage a given quantity of gas. On July 20th I made a solution of 140 grammes of bicarbonate of soda in the smallest possible quantity of water at 100° F., also a solution of 120 grammes of tartaric acid in like manner. Gave chloroform; introduced long rectal tube, attached a syringe, and injected a little more than one-third of the solution of soda. The same relative quantity of the acid solution was then injected, the rectum having been grasped from behind and pushed forcibly forward against the large tube to prevent the escape of gas. The abdomen, already greatly distended, was still further expanded by the prompt disengagement of gas. The experiment was again made, using about the same quantities of the solutions as before, with the same appreciable effect. A want of experience made it all the more difficult to hold the rec-

tum sufficiently tight to prevent considerable escape of the gas at each trial. With the solution remaining, a third experiment was made. In this great care was used to prevent the escape of the gas per anum. Again there was decided abdominal expansion, but this time it was accompanied by a sharp, migratory gurgling. As this gurgling was not heard at either of the other trials, and from the fact that the abdominal expansion was greater than it had been before, it is safe to infer from what followed that this last effort was the means of overcoming the obstruction. Mild cathartic enemata were now given as often as expelled, and the evacuations carefully examined.

A few hours after the operation, the tympanites, pain, and vomiting began to subside. The improvement continued marked and general, and on the 22d a free alvine evacuation took place. Thus a period of thirteen days had elapsed during which not a particle of fecal matter passed per rectum. Aside from a strong tendency to diarrhoea, the convalescence was void of further interest. Neither the history of the patient nor a careful rectal and abdominal examination enabled me to determine the precise nature of the obstruction.

The treatment of intussusception and intestinal occlusion by the forcible injection of air has often been successful, but it has likewise often failed. The difficult and imperfect methods of applying it would doubtless account in a measure for many failures reported from its use.

Any amount of distending force can be obtained from the disengagement of gas by the action of acids upon certain bases; and when we have these chemicals in the form of bland solutions, as tartaric acid and bicarbonate of soda, we have only to inject them into the rectum separately, and prevent escape of the power generated.

For an adult, inject 50 grammes of bicarbonate of soda in solution (smallest quantity of water at 100° F.), and immediately follow it with 45 grammes of tartaric acid in solution. If there be no loss by regurgitation, and if the obstruction be not too high, this will doubtless be sufficient.

Extreme abdominal tympanites or great extension from gas in the cavity of the abdomen might limit the degree of intestinal distention which we seek to obtain from the effervescence, and militate against a successful operation. If it can be definitely determined that the tympanitis is more abdominal than intestinal, it would, no doubt, be wise to introduce a small aspirating needle, and permit the gas to escape before operating.

I trust that further experience will enable us to obtain some guide by which we can determine at once if the gas has removed the obstruction, and not subject a patient to unnecessary and repeated trials.

A NEW JOURNAL.—We have just received the first number of a new journal published in Newcastle, New South Wales. It is entitled the *Australian Practitioner*, a Quarterly Journal of Medicine, Surgery, and Sanitary Science, for the Australian Colonies. According to the prospectus, the journal is started to supply a medium for the intercommunication of the observations of colonial practitioners on the causes, progress, and treatment of diseases in that part of the globe, and also to disseminate some apparently much-needed information on sanitary subjects. The number before us contains original articles on scirrhus of the mamma, on four cases of ovariectomy, and on a rare displacement of the heart.



## Progress of Medical Science.

**NORMAL ACCOUCHEMENT DURING EXTRA-UTERINE PREGNANCY.**—The following case, published in the *Revue de Littérature Médicale*, by M. Labatut, interne à l'Hôtel-Dieu de Toulon, is of some interest: A woman, thirty-three years of age, was in 1868 delivered of her first child; two years later, 1870, she again showed all the signs of pregnancy. About the ninth month, according to these signs, she had violent pains, but without any result. After this she was sick for six months, when her menses again returned and she regained a state of comparatively good health. The tumor partially subsided and the pains disappeared. In 1875 the catamenia were again suppressed, but this, together with digestive disturbances which showed themselves about the same time, were placed to the credit of the turn of life, the woman being now forty-one years of age. Some months later, however, she was examined by Mme. Rampin, a midwife of Toulon, who diagnosed a pregnancy in the ninth month; at the same time she perceived a large tumor in the right flank, which, after hearing the history, she attributed to an extra-uterine pregnancy. Fifteen days later the woman was delivered of a living child, and a more careful examination convinced the midwife of the correctness of her diagnosis of the nature of the tumor. In March, 1877, the woman died in the hospital at Toulon of pulmonary tuberculosis. The autopsy revealed in the right tube a mature fetus, macerated and enclosed in a thick sac. This proved to be, therefore, a tubal pregnancy, dating back seven years, and in spite of its presence there was fecundation and a normal labor.—*Journal de Médecine*, Nov., 1877.

### TREATMENT OF GOITRE BY INTERSTITIAL INJECTIONS.

—In an article published in the *Annales des maladies du larynx et des oreilles*, M. Cazalis reviews the different modes of treating goitre, and especially the method of Luton. This method, more especially applicable to parenchymatous and fibrous goitres, consists in carrying the iodine to the very heart of the tumor. By this means Dr. Luton has frequently obtained cures in cases rebellious to medical treatment. The ordinary hypodermic syringe is used, but a gilt or nickel-plated one is preferred, and the piston must fit accurately to overcome the resistance the liquid sometimes meets with in the gland. Either the official tincture of iodine may be employed, as used by Luton, in doses of one gramme to five grammes, or the ioduretted solution of iodine of Bertin, in doses from fifteen drops to forty drops. The needle of the syringe should be introduced about two to three centimetres, to insure the penetration of the fluid only into the gland. Lévêque advises the unscrewing of the syringe after the introduction of the needle, to ascertain, by the flow of blood, whether or not any important vessel has been entered. The dose of liquid is variable; Luton employed from fifteen drops to four and five grammes. The subsequent symptoms vary with the strength and amount of the solution used. Some solutions, or some small doses, cause only a sensation of uneasiness, or a slight pain in the region of the neck. Stronger injections give rise to pain radiating towards the chin and ears. Occasionally some inflammatory symptoms may be observed, the pulse and temperature rise, the neck swells and becomes tense, but the inflammation usually subsides by the second or third day, and there is felt within the substance of the gland a hard nodule about the size of a pigeon's egg, which contracts little

by little and diminishes with the gland. Heller, to reduce the pain and irritation, added fifteen milligrammes of the sulphate of morphia to his injection. Suppuration is rare, but is to be feared if too large an injection, or too caustic a solution has been used, or if the liquid escapes into the surrounding cellular tissue. This method usually gives more rapid results than the medical treatment, but several months are sometimes necessary to obtain these well-defined results. Morell Mackenzie, who has had a large experience of this plan, repeats the injections about every ten days. Luton met with but one case he could not treat by this plan; that was a vascular goitre. Mackenzie, out of seventy-three cases treated in this manner, cured fifty-nine, diminished the size in nine, got no results in three, and two patients gave up treatment.—*Journal de Médecine*, November.

**LESIONS OF THE PANCREAS IN CERTAIN FORMS OF DIABETES.**—M. Lancereaux presented to the Académie de Médecine, of Paris, some pathological specimens showing lesions of the pancreas taken from subjects dead of diabetes. In remarking on these cases he said: These specimens show that diabetes mellitus is, in some cases at least, accompanied by grave alterations in the pancreas. A similar alteration has been found in many of the recorded cases of diabetes, and in those cases as in ours, the disease, the progress of which has been relatively rapid, and the termination fatal, showed itself by polyphagia, polydipsia, excessive emaciation, abundant glycosuria—in a word, by all the characters of diabetes. On the other hand, the animals in which the pancreas has been extirpated or destroyed become voracious, rapidly emaciate, and soon die. Now, bearing in mind the peculiar characters of the diabetes in those cases of alteration of the pancreas, and the phenomena observed in animals after the destruction of this organ, we believe we can conclude that there exists a causal relation between these grave lesions of the pancreas and the cases of diabetes mellitus in question. This form of diabetes shows itself by a suddenly commencing emaciation, with polydipsia and polyphagia, and the peculiar characters of the alvine dejections. The prognosis of this diabetes will be very grave. The indications for treatment are to forbid substances digested by the pancreatic juice, and to nourish the patient with food digested in the stomach.—*Gazette des Hôpitaux*, Nov. 15, 1877.

**A NEW TREATMENT FOR LUMBAR ABSCESS.**—Osman Vincent has treated eighteen cases of lumbar abscess by the injection (after evacuation) of sulphurous acid. He selects two cases as examples: the first was cured in two months and ten days, the second in twenty days. The other cases were similarly successful, the only difference being in the amount of pain caused by the injection, which was sometimes severe, but often altogether absent, and in the character of the constitutional disturbance, which was either slight or totally wanting. There was one point upon which he asked the opinion of the meeting; this was, that as a rule, the injection went in colorless and came out black; this was most marked in the cases that succeeded best. He concludes as follows: "The sulphurous acid acts on the pyogenic membrane in such a manner as to prevent the formation of pus, and if strict recumbency is made an essential part of the treatment, there is no reason to fear that this dreaded, but, if taken in time, avoidable complication of angular disease, may, by this treatment, be shorn of much, if not all, its previous destructiveness."—*The Medical Press and Circular*, December 26, 1877.



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## THE COMMITMENT OF THE INSANE.

THE case of Miss Dickey has given rise to much comment by the daily press. Furnishing as it does all the elements for a first-class sensation, this is no wonder. In fact, nothing in the shape of a statement can be more startling than the forced confinement of a lady in a lunatic asylum as a patient, when it is proved by a jury that there was an error of diagnosis from the start, and that the said lady was all the time of sound mind. The injustice of the whole proceeding appeals so forcibly to our sense of humanity, that it is difficult to find words which are forcible enough to express our regrets for such an occurrence, or our abhorrence of the possible motives which may have actuated interested parties in bringing about such a result. But in reality the facts of the case do not warrant the conclusions which have been drawn from them. There is certainly cause for much difference of opinion regarding the justice of the jury's verdict. Indeed, there is enough of doubt regarding the sanity of the particular patient in question, to set at rest the fears of any who may believe themselves in danger of being confined in asylums without cause. Still, the case is a suggestive one as bearing upon a system of asylum management which allows the possibility of such occurrences.

Although the facts in this particular case do not by any means prove that the patient was sane, or confined without cause, the bare possibility of a mistake upon such a point invests the whole subject of the diagnosis of insanity with an importance second to nothing in the whole range of our professional duties. Hence, the greater the number of safeguards with which the patient can be surrounded, the better.

Although our present laws regarding the commitment of insane persons are calculated to meet all emergencies, they are nevertheless not perfect. But in allowing this, we must not ignore the fact that such laws have

been specially framed with a view of preventing the confinement of sane persons, and of affording them every chance of receiving the full benefit of the doubt.

That Miss Dickey's case is not an exception to the rule in reference to the precautions that are usually taken regarding commitment, is sufficiently proven by the facts as brought out in the examinations before the court. She was examined by perfectly competent men, according to due process of law, and the commitment was made in regular form. She remained under the observation of the medical officers of one of the best-conducted asylums of the country for a period of six years without creating in the minds of these gentlemen any doubt regarding her sanity. This was up to the time of the appointment of a special commission to examine her, the result of which examination has already been stated.

The point in this particular case turned really upon the question, not whether Miss Dickey was of perfectly sound mind, and capable of managing her own affairs, but whether it was necessary that she should be compelled to submit to treatment in a lunatic asylum. When it comes to be settled whether the patient was insane or not, in accordance with the general acceptance of these terms, there is but one answer, and that is almost unqualifiedly against the verdict. When, however, it was to be decided whether or no she should be allowed her liberty under circumstances of doubt created by counsel, the jury naturally and properly strained a point in her favor. This is perfectly right, but the act itself should not be made to prove that there was any dreadful mistake made in committing the patient to the asylum, or of treating her as a patient while she was there.

However, as we have already said, we are anxious that every improvement shall be made upon our present system of committing patients to lunatic asylums as shall prevent even such a supposable case as the one in question. The learned Judge, in his charge to the jury, suggested some improvements in the shape of a trial, similar to the one in question, in all cases of insanity, and within thirty days after their commitment. But, as we understand it, the very process of commitment implies such a right of trial, inasmuch as no person supposed to be insane "shall be held in confinement in any asylum for more than five days, unless within that time such certificate be approved by a judge or justice of a court of record of the county or district in which the alleged lunatic resides, and said judge or justice may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving of such certificate, and said judge or justice may in his discretion call a jury in each case to determine the question of lunacy."—(Laws of New York, Chap. 446, Sec. 1, 1874.)

Doubtless his Honor has in view some more radical measures to reach this end, but it is difficult to see how

the present system can be improved by any regulation establishing a definite trial in each case. With the number of cases which are being daily admitted to our asylums, such a procedure would not only be impracticable, but impossible.

#### THE SURGEON-GENERAL OF THE NAVY AND HIGHER MEDICAL CULTURE.

WITHOUT entering upon any *résumé* of the tables and other valuable data contained in the report of the Surgeon-General of the Navy for 1877, there are one or two points raised in the introductory text that peculiarly verify and enforce the necessity for a higher standard of medical training, which the faculties of our colleges will find it profitable to ponder at their leisure. After observing that the instruction in hygiene, microscopy, and allied sciences, now considered indispensable to the accomplished physician, is either not given at all, or given very imperfectly, in most of the medical schools in this country, Dr. Grier recommends that assistant-surgeons be ordered, some months previous to their examination for promotion, to the hospital at New York for practical training in these departments.

Indirectly his remarks furnish practical evidence of the fact that a thorough training in the natural sciences, in chemical manipulation, and in microscopy and microchemistry, should, so far from being optional with the student, as they now are, be insisted upon as essential to graduation. While these suggestions have no apparent relation to the necessity for a higher standard of preliminary training, so often urged in these columns, they are really to the point as concerns that question; for, with the great advance in the physical sciences, and particularly in the biological and chemical groups, that has distinguished the last half a century, it is practically impossible to crowd even a summary of them into the conventional three years in a medical college. Of course, a physician need not be an expert in comparative anatomy or microscopy, nor is it essential that he should be able at sight to classify a strange insect, or a newly discovered fossil. But he should, in order to maintain the scientific repute of the profession, know enough of such things to escape the imputation of ignorance; and in the sciences more immediately related to medicine, in botany and chemistry, *e. g.*, his training should be such as to enable him to set about an original research intelligently. The frank statement of the Surgeon-General of deficiencies in the service, due to laxity on the part of our medical schools, ought to encourage the faculties of such schools to take the initiative in a movement that is fast winning its way into general popularity. Any college, initiating a higher standard, and insisting upon a preliminary training equivalent to the degree of A.B., might at the beginning meet with some loss of patronage, but in the end it would become a triumphant success.

The Surgeon-Generals of the army and navy might in one way contribute materially to give popular basis to this movement; and that is by furnishing certain statistical data as to the preliminary training, place where graduated, etc., etc., of rejected and accepted candidates for admission into the service. So far as our observation has gone, graduates who contemplate an examination for the service have to spend some months in special preparation before they feel safe in presenting themselves; and it would stimulate not only the colleges themselves, but the efforts of students, were it once understood that a certain stigma would be fixed upon any institution whose graduates were found conspicuously deficient.

#### SPREAD OF CONTAGION BY BOOKS.

THE directors of a public library of Kansas have warned the public against the danger of contagion through books, and insist that none such be returned to the library, when used by a person with contagious disease, until said books are properly disinfected. During the prevalence of an extensive epidemic no books are allowed to go out. This is a very important subject which has not received much attention, and suggests many precautions of like character with other articles which pass from hand to hand, notably school-books, paper money, and the like.

### Reviews and Notices of Books.

LECTURES ON CLINICAL MEDICINE. By DR. McCALL ANDERSON. London: Macmillan & Co., 1877.

THIS is a book of 268 pages, divided into seventeen Lectures.

The first is an introductory lecture devoted to the importance of clinical instruction, and to the consideration of the progress made in the field of practical medicine in diagnosis by the aid of the ophthalmoscope, laryngoscope, thermometer, etc., and in therapeutics by cold electricity, the employment of trained nurses, etc.

The other lectures deal with the following subjects: Pain as a symptom of disease; gastric and cerebral vomiting; hysteria; spinal irritation; phenomena of embolism; a case of supposed disease of the pons varolii; treatment of aneurism of the arch of the aorta by galvano-puncture; aneurism of the abdominal aorta; tubercular peritonitis; acute phthisis; mediastinal tumors; the cirrhotic form of Bright's disease; multiple fatty tumors complicated with aneurism; lupus verrucosus; ephidrosis cruenta; elephantiasis arabum. The last lecture deals with the question, "Are the vegetable parasitic affections of the skin due to one or several parasites?"

The book also contains fifteen illustrations. Three of these are temperature charts, and two are reproductions of sphygmographic tracings. Three are uncolored illustrations of the fundus of the eye, one of the normal and the others of the early and of the advanced stage of retinitis albuminurica. These latter it seems might as well have been omitted, for without appropriate coloring they are possessed of very trivial value. The remainder represent an aneurismal sac filled with fibrin, the result of galvano-puncture (poor), a section



of cirrhotic kidney (poor), a section of the retina from the same case, and a leg affected with elephantiasis arabum before and after ligature of the external iliac artery and its fellow.

This sketch will give an idea of the contents of the book. The style is lucid, the words, as a rule, well chosen, and the contents, read with pleasure, can be recollected with profit. The article upon the treatment of aneurism of the arch of the aorta by galvanopuncture, illustrated as it is by a case in which the method recommended by the author of only introducing the positive pole within the sac and making use of six to eight of the zinc carbon cells, resulted in a temporary arrest of the disease, is of considerable interest, and a valuable contribution to the therapeutics of this terrible malady. In the article on embolism he gives as a typical case of cerebral embolism one in which, in addition to the ordinary paralysis arising from a plug in the left middle cerebral, there was an internal strabismus of the left eye, the paralysis of the body being on the right side. An autopsy was obtained, and an embolus found in the left middle cerebral artery, with softening of the outer portion of the corpus striatum, and to some extent of the island of Reil. It is expressly stated that there was no other lesion. The sensation was also considerably impaired. It seems to us that the writer fails in not drawing attention to this marked exception to the ordinary course of events in cerebral embolism in that situation, and in not giving more exactly the limits of a lesion in which sensation was involved to so considerable an extent. No mention is made of the condition of the posterior portion of the internal capsule, etc. This case is followed by a very rare one of cerebral embolism due to hydatids.

His article on the cure of tubercular peritonitis is interesting, but open to the criticism that one of his successful cases was due to typhoid fever and not tubercular peritonitis. The symptoms were pain and fulness in the hypogastric region, tympanitis, high temperature, great emaciation, diarrhoea, and vomiting, and no effusion in the peritoneal cavity. A sister was sick with much the same symptoms as this child was convalescing. It seems extremely probable that the case of Spencer Wells, upon which he relies, may have been one of chronic peritonitis, with granules not of a tubercular nature.

We would also suggest that the first of his cured cases of galloping consumption was one of typhoid fever with bronchitis, and the second, acute broncho-pneumonia, perhaps also complicated with typhoid fever. We base our opinion upon somewhat similar cases which have shown us the liability of mistaking typhoid fever complicated by severe bronchitis or broncho-pneumonia for acute phthisis, and *vice versa*. We think that the author has erred in not pointing out the liability of such mistake in diagnosis when he is asserting his power to cure diseases pretty generally regarded as tending to a fatal termination.

#### SECOND REPORT OF THE BOARD OF HEALTH OF THE CITY OF NASHVILLE, FOR THE YEAR ENDING JULY 4, 1877.

ASIDE from mortuary statistics and other dismal data, this report embraces a paper on the topography of Nashville in its relation to diseases, supplemented by a report on the water supply of the city, with notes on its climate, contributed by Dr. Ford, of the United States Signal Service, which may be studied with profit as a contribution to the data of a comparatively new aspect of sanitary science, namely, the relation of geological formations to types of disease, to which

the eminent Dr. George Derby, of Boston, has recently directed the attention of scientific inquirers in this country. The subject is discussed at some length in the last report of the American Public Health Association, with the resultant confession that the data are as yet too scattered and fragmentary to admit of exact conclusions, but with the consolatory prediction that most important contributions to public medicine are possible in this field. A brief summary of the existing materials will be found in our review of the last volume of the transactions of that body, and a fuller one in the paper of Dr. Harris, cited in that review. The night-soil question has, it seems, become as prominent in Nashville as in our larger cities, although the smaller the town the less difficult its solution, natural facilities being equal. The discussion of this topic, pages 32-38, is neither exhaustive nor abundant in suggestions. But it serves to show that general attention has been attracted to the subject in this country, and that our people are making rapid progress toward an intelligent interest in this passingly important issue of State Medicine. With such indications of a popular sentiment in favor of improved methods of sewerage and drainage, and of avoiding the now almost universal pollution of our rivers, the enlightened sanitary engineer may take courage and venture to hope that the day is near at hand when a scientific treatment of the excreta of cities and towns will be possible. Till then high death-rates must be anticipated. Nashville is, it appears from this report, the only city of 25,000 inhabitants in the United States that is without a public hospital, its only institution of that kind being the property of its ancient University, and not open to the destitute sick.

F. H. HAMILTON. KNOCHENBRÜCHE UND VERRENKUNGEN. Translated into German from the Fifth American edition, by Dr. A. ROSE. Göttingen, 1877.

In translating Dr. Hamilton's work on Fractures and Dislocations, Dr. Rose has paid a deserved tribute to our widely known and esteemed countryman, and has at the same time done a great service to American surgeons in general. Dr. Hamilton embodied in his work, giving full credit to the authors, the reports of numberless cases that might otherwise have been buried forever in the forgotten mass of American medical literature, and Dr. Rose's translation will serve to convince our German brethren that Americans, despite their numerous disadvantages of training and circumstances, have not been idle in the cause of medical progress. This is a fact which Germans in general are only too apt to ignore. The translation has been performed in a careful and conscientious spirit, and in point of accuracy far surpasses the majority of English translations of German medical works. In comparing the German version with the original, we have found but very few places in which the translator failed to keep closely to the text, and even in these places the changes are so slight and unimportant that they do not at all diminish the value of his work. The illustrations are exact copies of the originals, so exact, in fact, that we believe they must have been made from the same woodcuts. Only one of the 344 illustrations in the English copy has been left out by the translator.

#### FOURTH BIENNIAL REPORT OF THE STATE BOARD OF HEALTH OF CALIFORNIA, FOR THE YEARS 1876 AND 1877.

ALTHOUGH very brief as compared with our own reports, or with those of the State Board of Health, Mass., this pamphlet of 100 pages contains a couple

of papers of high value to the medical profession at large, in addition to the usual facts of purely local interest. One of these is a carefully prepared statistical report by the Secretary of the Board, on the Relations of the Climate of California to Consumption, which, with an alteration of names, will be found applicable to our own longitude; the other, a practical statement by Dr. J. F. Montgomery, of Sacramento, as to the adulteration of food, drink, and drugs, the facts of which are of scarcely less interest to New York than to California practitioners. The report of the secretary embraces an apparently very exact survey of the vital statistics of California for the last two years, with pretty full notes upon recent outbreaks of diphtheria, a statistically arranged survey of the prevalence of consumption in the State, and a compendious series of memoranda on malarial diseases, edited from the communications of medical correspondents in each county. A better and more striking witness to the value in sanitary science of State Boards of Health, with their larger and more comprehensive schemes of inquiry, could not well be adduced than is presented by this rapid survey of the diseases of a whole State, and the memoranda of local causes accompanying it. Excellent as the reports of our metropolitan board are, their efficiency as sanitary documents would be vastly augmented by the supplementary work of a general survey and comparison of sanitary data such as are here illustrated.

**HOSPITALS: THEIR HISTORY, ORGANIZATION, AND CONSTRUCTION.** By W. GILL WYLIE, M.D. D. Appleton & Co., New York, 1877.

THIS book is a reprint of the Boylston Prize Essay for 1876. It commences with a chapter on the history of the origin and development of hospitals, followed by one on the relations of hospitals to pauperism. The latter chapter deals with some of the bad results of indiscriminate charity, and gives a classification of hospitals. The third chapter relating to the organization and management of hospitals, considers "the Board of Managers and Medical Boards," "the Value of Hospital Appointments," "the Influence of Women in Hospitals," and "the Superintendent." The five following chapters are devoted to the construction, furnishing, and general arrangement of hospitals. The ninth chapter contains the writer's views on the relations of a medical school and training school for nurses to a hospital. The tenth chapter is taken up with a brief consideration of "The Improvement of Hospitals now in Use," "Small Hospitals," "Lying-in Hospitals," "Hospitals for Convalescents," "Army Hospitals," and "Insane Asylums." The eleventh and last chapter relates to hospitals now in use, which the writer considers under five heads, viz.: The old Conglomerate, the old Block plan, the Corridor plan, the Pavilion system, and the One-Story Pavilion plan.

The book is well written, and contains a good deal of useful information.

**THE SCIENCE AND ART OF SURGERY:** Being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERIC ERICHSEN, F.R.S., F.R.C.S., Surgeon Extraordinary to her Majesty the Queen, etc. Revised by author from the seventh and enlarged English edition. In two vols., 8vo. Philadelphia: H. C. Lea, 1878.

For the past twenty years Erichsen's Surgery has maintained its place as the leading text-book, not only in Great Britain, but in this country. That it is able to hold its ground is abundantly proven by the thoroughness with which the present edition has been revised,

and by the large amount of valuable material that has been added. Aside from this, one hundred and fifty new illustrations have been inserted, including quite a number of microscopical appearances of pathological processes. So marked is this change for the better that the work almost appears as an entirely new one. To such as may be in the commencement of their studies and may hear for the first time of the work before us, we would give some idea of its scope in the words of its author: "Throughout the work it has been the object of its author to place before the student and practitioner the science and the art of surgery, not as consisting merely in the observation of such injuries, diseases, and malformations as are met with in surgical practice, or in the dexterous application of manual or operative means for their relief, but as demanding an exercise of general medical knowledge and thorough acquaintance with all those conditions, whether intrinsic to the patient, or surrounding him, that favor or prevent his restoration to health." And again: "In every instance an endeavor has been made to give as full and clear a description of symptoms, pathology, diagnosis, and treatment as the importance of each demands and the present state of surgical knowledge admits."

In conclusion, we repeat the general verdict of practical surgeons, that it is one of the best works of its kind in any language.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, January 9, 1878.*

DR. E. G. JANEWAY, PRESIDENT, IN THE CHAIR.

#### THROMBOSIS OF THE OVARIAN VEIN—PYÆMIA.

DR. JANEWAY exhibited a specimen of thrombosis of the ovarian vein, with the following history: Bridget Shea, æt. 40 years, admitted to Bellevue Hospital, November 27, 1877. The patient was a married woman with a good family and personal history. On the 9th of November the patient was delivered of a child at full term. The labor was natural, though she stated that she had a chill the night previous, and that her knees became painful and swollen on the 11th of November. On the 26th she had two chills, followed by profuse sweating. When admitted on the 27th she was found to be of stout build, with a small abscess over left wrist, and swelling and great tenderness of each knee. The tongue was dry, brown, and tremulous, the teeth covered with sordes, and the heart, lungs, and abdominal organs normal, save some enlargement of the spleen. Pulse 118; temp. 104½° F. She had had two chills just previous to admission, each followed by perspiration, and later she had a third in the hospital. The abscess over the left wrist was opened the next day, and on the succeeding day a hypodermic syringe was used for exploring the right knee, which was the more swollen and tender of the two. No pus was obtained by the use of this instrument. Her breath had a marked sweetish odor, the temperature was somewhat irregular, but, as a rule, low in the morning and high in the evening, except on the two days preceding death, when it ranged steadily between 103° and 104°. A delirium occurred on the night of the 5th, and on the morning of the 6th of December, she died at about 4 A.M. The symptoms did not change much, save the addition of vom-



iting five days before death, but ceasing on the use of nutritive enemata three days before death, and the supervention of some tympanitic distention of the abdomen on the 3d of December.

A vaginal examination made shortly after the admission of this patient by my house-physician, gave no evidence of disease of the uterus. I examined her with negative results as regards a direct cause, which I could satisfy myself was the cause of the pyæmia which the clinical history made manifest. In the absence of a marked lesion I came to the conclusion that in all probability the cause of the pyæmia was to be found in a thrombosis of the ovarian vein, due probably to some local process in its neighborhood of which we did not obtain evidence; and I gave a clinical lecture upon her as illustrative of this condition on the 4th of December.

The post-mortem examination showed the following conditions: The right knee-joint contained a small amount of thick pus. The left, however, did not give exit to any on incision of small size. The heart was normal. The lungs were œdematous, and there were two lobular inflammations in the lower lobe of the right lung. The pleura covering one of these was raised by a thin, sero-purulent effusion. The branch of the pulmonary artery leading to these contained a plug which in the portion towards the periphery was soft and puriform, but towards the centre was firm, reddish-gray, adherent. The soft portion was evidently an embolus; the firm, a secondary thrombus. The soft puriform matter consisted of granular fibrin, short fibrillæ, some few granular leucocytes, numerous fine granules, and rod-shaped moving bacteria. The liver showed no evidence of disease. The spleen was enlarged and softened. The uterus was about three inches long, and its inner surface was coated with a thick, tenacious layer of fibrin and pus, easily removed. But it showed no evidence of inflammation of its walls. The right ovary contained a small abscess about the size of a marble. There was also a sac between the vagina and rectum of about the same size, communicating with the vagina by a pin-point opening. From this there could be traced upwards an inflammation of the cellular tissue of small width. This higher up involved the radicles of the ovarian vein of the right side leading to a periphelebitis. The right ovarian vein had its coats thickened, was adherent to the periphery, was considerably enlarged, and contained a soft puriform thrombus. The vena cava contained a peripheral thrombus on the right side of about one-sixteenth of an inch in thickness, commencing at the opening of the right ovarian vein. The left ovarian vein was healthy.

#### THROMBOSIS OF THE FEMORAL AND ILIAC VEINS IN A CASE OF PHLEGMASIA DOLENS—PYÆMIA.

DR. JANEWAY presented a second specimen, which consisted of thrombosis of the femoral and iliac veins.

Mary G—; married; 25 years of age; Irish; was admitted to Bellevue Hospital, December 15, 1877. The patient gave a good family and personal history. She had been free from syphilis and intemperance. She had had two natural labors; no miscarriages. During her first pregnancy, the legs were œdematous, but the swelling subsided after confinement. She was confined two months before admission to the hospital, but at the end of four got up, worked, and walked, and afterwards flooded for a week at times. At the end of the week, her left leg began to swell and grow painful. The secretion of milk ceased. One or two weeks later the right leg became affected in a similar manner.

On admission, the patient was possessed of considerable flesh; was weak, and markedly anæmic. Her lungs were normal. The heart was of normal size, but a soft, blowing murmur, systolic in rhythm, was audible at both apex and base, and produced independently of each other. There was a murmur in the arteries of the neck, and venous hum. Urine was pale, acid, of specific gravity 1018, and contained albumen and casts. Both lower limbs were swollen, œdematous, tender, and painful; the right being the more affected. The swelling prevented a full examination of the femoral vein, but at first no cord-like feel could be detected. Thermometer, 103½° F. By the 20th of December the pain in the right limb became increased, whilst that of the left was nearly gone, and at the same time a slight induration could be felt in the course of the femoral vein, near the saphenous opening on the right side, and slight erythema was manifest just above Poupart's ligament.

December 24th.—As a result of resting the limb on a double inclined plane, and wrapping it in oil silk and cotton batting, after inunction with ung. stramonii, marked relief from pain was experienced since the previous note. At this time induration could be made out in the course of the external iliac vein, and the erythema above Poupart's ligament became more marked, and the tenderness much severer.

On the 25th of December, the tongue became brown and dry, the breath sweet, and profuse diarrhœa occurred. From this date to the 29th, she continued in much the same state, but at this latter date an induration, due to thrombosis, could be distinctly traced in the course of the superficial epigastric vein, and the induration in the right groin became more marked. The patient from this date became weaker; the diarrhœa, somewhat less marked, continued, and on the 1st of January, 1878, she died, œdema of the lung developing previous to death. I made a vaginal examination on several occasions in this case, but could discover no evidence of disease of the uterus, vagina, or of their surroundings. It was easy to make out a thrombosis of the veins, external iliac and femoral, but the cause was not so easily decided upon. I was in doubt, owing to the induration and redness in the course of the external iliac and upper portion of the femoral, whether the thrombosis of these vessels was due to a local inflammation in this region, or depended upon weakness.

The temperature record averaged from 100–102°.

The autopsy, on the 3d, showed the following: The pericardium contained about two ounces of serous fluid, without the least trace of inflammatory exudation. The heart was of normal size; the valves normal, but the muscular fibres were the seat of marked fatty degeneration in the interior, less marked towards the exterior. The left pleural sac contained somewhat over a pint of serous fluid. The left lung was somewhat œdematous and congested. The upper lobe of right lung contained two gangrenous infarctions. The larger was about one and one-half inches in transverse measurement, seated at the periphery, about the middle of the interlobar fissure. This spot consisted of a central core of dead lung-tissue, around which suppuration existed, which had in many places detached it from the surrounding lung, in which an indurative inflammation was progressing. The other was smaller, less advanced in the process of separation, and seated towards the centre. In the lower lobe, many of the branches of the pulmonary artery were the seat of an extended thrombosis. The thrombus possessed adhesion to the wall, was reddish-gray, firm, and uniform in its structure. This throm-

bus began in one of the large branches, and extended thence to the periphery. There were a few points of catarrhal pneumonia in this lower lobe, but no hemorrhagic infarctions. The lobe was somewhat congested, and a little frothy serum escaped on section.

*Veins.*—The vena cava ascendens, common iliacs, external iliacs, femoral of the right, and probably of the left, were the seat of a thrombosis.

I regret that, as the friends were to bury the body, a careful dissection of the veins of both legs was impossible. A thrombus projected from the left common iliac vein into the vena cava, occupying about one-third of the calibre of this vessel, and terminating by a tapering extremity an inch above the opening of the right ovarian vein. The left, common, and external iliacs were almost occluded by the thrombus—a small channel, capable of admitting a pin, existing at the upper part. The right common iliac contained a thrombus which was only partially obstructing, and existed on the upper half of the wall. The external iliac was completely occluded, and the thrombus extended in the femoral as low as the point where I divided it in Hunter's canal. The thrombus in the femoral was more recent than that in the external iliac. The superficial epigastric vein contained a firm thrombus, but the internal saphenous was only thrombosed by a recent thrombus near its entrance into femoral. The tissues around the vein were thickened and closely adherent to the vein, rendering the dissection difficult, and the walls of the veins are somewhat thickened. There was also a little abscess the size of a small marble, in the right inguinal region above the vein. The uterus was normal, as was the vagina, broad ligaments, ovaries, etc. The uterine and ovarian veins were permeable, and were not thrombosed. The ovarian veins, of the right side especially, were larger than usual, and I suppose, through their communication with the internal iliacs by the uterine, must have helped to carry on the circulation from the lower extremities. The abscess and the periphlebitis were, I think, secondary to the thrombosis, which was probably due to weakness. The liver was somewhat enlarged, had a fairly-sharp border, and was the seat of marked fatty change in the liver-cells. The spleen was not much altered in size; a little increased in thickness. The kidneys presented, as the liver, marked fatty change. This existed in the epithelium of the tubes, and in the Malpighian bodies. There were also casts in some of the tubes. The phenomena of the case were, then: Hemorrhage post partum; thrombosis of veins mentioned, from resulting weakness of circulation, the fatty degeneration of heart, perhaps, aiding thereto; periphlebitis resulting from thrombosis *embolism* in right upper lobe leading to gangrenous infarction; thrombosis of pulmonary artery in lower lobe; a systolic murmur heard during life at both apex and base, not due to an organic lesion, but to anemia; degeneration, fatty, of heart, liver, and kidneys.

#### TRACHEOTOMY IN LARYNGEAL DISEASE—WHEN AND WHY IT SHOULD BE PERFORMED.

DR. J. H. RIPLEY exhibited a patient upon whom he had performed tracheotomy for laryngeal disease, and gave the history as follows:

E. F. F—, 25 years old, married, born in the U. S., a resident of Plainfield, N. J., and by occupation a grocer. His grandparents died of old age. His parents are living, and in good health. He is the eldest of a family of eleven children. Of these, two were still-born, and five died of eruptive fevers in early childhood. A sister died of consumption at the age

of 20 years. A brother and sister, aged respectively 19 and 23, are in good health. The patient's first illness was a prolonged attack of chills and fever, when 24 years old. Several years ago he contracted a gonorrhea, which lasted six months. Otherwise he had always been healthy. His habits have been regular, except that he occasionally indulged to excess in alcoholic liquors. Eighteen months ago he began to suffer from cough, which, however, did not prevent him from attending to his duties, and from which he fully recovered in about two months. Three months later he was again seized with cough, which has continued to the present time. Nine months since, he began to be troubled with hoarseness, which has been gradually getting worse. His general health, too, has steadily declined, his strength and appetite have failed, and he has had night-sweats. Of late he has experienced pain in swallowing, especially hot drinks, which also had a tendency to excite severe paroxysms of coughing, during which he often vomited his meals. He has had no hæmoptysis. Two months ago he entirely lost his voice, and has not since been able to speak above a whisper. Difficult respiration was soon added to the aphonia, and has been getting so much worse within the last few weeks as to frequently awaken him at night with a sense of impending suffocation. Dec. 22d, after slight exertion, he felt nauseated, and tried to vomit, but unsuccessfully. Great dyspnoea followed, and he fell to the floor unconscious. He was soon restored, when respiration became comparatively easy. The following day he was brought to St. Francis' Hospital by his physician, Dr. Chas. F. Stillman, our house-surgeon. His condition on admission was critical. The breathing was labored and stridulous, the face dusky, and the pulse frequent and feeble. After allowing him a few minutes' rest, we gave him an ounce of brandy, and then proceeded to perform tracheotomy, Dr. Stillman assisting. Chloroform was very cautiously administered, and at first he seemed to bear it well; the breathing became easier, and consciousness was soon lost. But I had hardly completed my first incision, before Dr. Hathaway, who was giving the anæsthetic, called my attention to the absence of the left radial pulse. I examined that of the right arm, which I found perceptible, but very feeble. The chloroform was withheld, and the operation rapidly proceeded with. Soon the pulse became stronger and chloroform was again administered, as the patient began to struggle. No other accident happened; the hemorrhage was inconsiderable, and he was soon breathing easily through the canula. The relief following the operation has been very gratifying. His breathing is now free, his appetite has much improved, and his cough greatly moderated. When the tube is removed, and the external wound closed, he can speak with almost natural clearness, and there is less dysphagia.

Dr. Elsberg examined the larynx six hours after the operation, and dictated the following: "I find the soft parts at the entrance of the larynx much hypertrophied, and the whole interior filled with swollen, infiltrated tissue; the aryteno-epiglottidean folds form great cushions, which meet in the median line. In my opinion, this condition would have proved rapidly fatal without tracheotomy." Before the operation, it was, for obvious reasons, impossible to obtain any very accurate knowledge of the condition of the lungs. Subsequently a physical examination revealed a large cavity in the left lung, with consolidation of right apex.

The urine was repeatedly examined, with negative



results. Heart, liver, and spleen were believed to be normal. Dr. Elsberg re-examined the larynx yesterday (Jan. 8). He said: "The swelling and infiltration of the parts have mostly disappeared; the mucous membrane is pale, and the superficial vessels enlarged." It would seem from the foregoing facts that tracheotomy has, in this case, accomplished these results: 1. It has relieved symptoms. 2. It has prolonged life. 3. So far as the larynx is concerned, it has proved curative.

DR. BRIDDON asked the question, if the laryngeal disease in this case was the result of tuberculosis.

DR. ELSBERG answered that it was not due directly to tuberculous disease.

DR. ROBINSON remarked, that in connection with this case, the question which had been asked at a previous meeting, how far tracheotomy can be of service in these cases, came up for consideration.

DR. RIPLEY did not understand that the disease in such a case was susceptible of cure any further than the larynx was concerned.

DR. VAN GEISEN stated that he had a somewhat similar case of dyspnea, upon which he intended to perform tracheotomy, but the previous use of inhalations of steam and lime-water rendered the operation unnecessary. He made the examination of the larynx during the intervals of the distressing dyspnea, and found that there was a breathing space somewhat less than the diameter of a quill. In the course of three hours afterwards, under the influence of the steam inhalation, the orifice became much larger, and the next morning the patient was relieved of his acute edema. There was, however, no tuberculous element in that case.

DR. RIPLEY did not think that the two cases were parallel ones. In his case the operation was absolutely necessary to save life.

DR. ELSBERG confirmed the latter statement, and stated that all the distressing symptoms of laryngeal trouble entirely passed away within two weeks after the operation.

DR. VAN GEISEN asked if tracheotomy in these cases conferred any permanent benefit upon tuberculous patients.

DR. RIPLEY remarked that some cases of tuberculous laryngitis partook of an ulcerative character, while in others the inflammatory element predominated. If the latter condition can be controlled by steam, the effect would be only temporary, and the condition would be liable to recur at any time thereafter. His patient's larynx had been becoming more and more closed for several months, and he believed that the only thing that would relieve a larynx under those circumstances was rest, and the only way to give it rest was by making an opening below it.

DR. VAN GEISEN asked if such was not an unusual form of inflammatory action in tuberculous laryngitis.

DR. ELSBERG replied that such cases were not very unusual. The question whether steam would relieve infiltration in cases of inflammatory obstructive laryngeal disease depended upon the depth of the tissues involved. When the mucous membrane merely was involved, steam was indicated; but when the inflammatory processes extended deeper, the original obstruction was apt to be increased, and death produced. In this connection he referred to a case of a practitioner of this city, illustrating the latter point, and in which death occurred within an hour after the inhalations were commenced. He thought it extremely important to distinguish between the two conditions of superficial mucous engorgement, and

submucous infiltration before relying upon the steam inhalations.

DR. JANEWAY asked Dr. Elsberg how frequently he had seen tracheotomy performed in laryngeal phthisis.

DR. ELSBERG replied that personally he had seen but five or six cases; but the operation had been done by other practitioners in accordance with his advice probably twenty times.

DR. JANEWAY asked what were the results.

DR. ELSBERG replied that, as far as the immediate condition was concerned, the results were satisfactory, although of course it could not be expected to have any tendency to arrest the progress of the pulmonary disease. The only indication for the operation was, as in Dr. Ripley's case, impending death from suffocation.

DR. BRIDDON stated that, according to his experience, edema very rarely occurred in ulcerative disease of the larynx. He thought, however, that such ulcerative diseases were benefited by the rest which tracheotomy could give them.

DR. RIPLEY referred to a case in his practice similar to the one related by Dr. Van Geisen, and in which he used steam very persistently for several days, but without benefit. He then consulted with Dr. Elsberg, who advised tracheotomy. The operation was performed accordingly, with the result of giving the patient immediate and permanent relief from all his distressing symptoms of dyspnea.

DR. JANEWAY said the question was, in what proportion of cases of laryngitis due to phthisis is tracheotomy advisable.

DR. ELSBERG replied that the proportion of cases was very small.

## Correspondence.

### THE TREATMENT OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I regard it as on the whole flattering to the merits of the treatment of diphtheria which I had the honor of outlining in your columns on January 12th last, that the credit of having previously presented one in some respects "similar" is claimed by Dr. Rodman in behalf of one author, and that of originating one "essentially precisely" identical by Dr. Mundé in behalf of another, in your issue of February 16th.

I will first reply briefly to Dr. Rodman.

The question whether various combinations of drugs are equally "simple, pleasant, harmless, and efficacious," is one to be settled only by actual experience. The importance of details is generally recognized both in medicine and surgery.

The doctor says I use almost the "identical spray" mentioned in the other article to which he refers (*Am. Journal Med. Sciences*, October, 1877). Now, as that "almost identical spray" was first mentioned, so far as I know, in my article (Transactions of the New York Academy of Medicine) read March, 1876, it is evident that it was not I that was the borrower.

Again, in the very important point of the treatment of nasal implication, on the proper performance of which many lives depend, there is a great difference in the two methods referred to. Which is the better can be settled only by general experience. With such

undeniable and important differences as this, and those which Dr. Rodman has himself acknowledged, it will probably not be thought strange that I protested against the doctor's inadvertent identification of the two methods. Let each stand on its own merits. I conclude my reply to Dr. Rodman by thanking him for his courtesy and candor.

But it appears that my treatment of diphtheria is not only "backed like a camel," but "very like a whale."

I am charged by Dr. Mundé with two things: first, adopting my treatment from Dr. Jacobi's "Contributions," etc.; second, failing to make any acknowledgment for it. Bad enough!

On page 290 of the Transactions of the Academy of Medicine for 1876, or page 7 of my reprinted pamphlet, is the following foot-note: "There is, in my opinion, more essential and valuable truth in this little monograph (Dr. Jacobi's) than can be easily found elsewhere. It should be carefully perused by all students of this much-perplexed subject. It is proper to add, that while I coincide with Prof. Jacobi's views in almost every particular, I am not his 'follower,' except in the order of publication. My own pathological conclusions and my present mode of treatment were independently arrived at (as many of my friends know) before his paper was written or I knew anything of its author's views."

Having for nearly two years before used a variety of similar combinations, given at short intervals. I was in November, 1874, using the very formulae which I have since published, as is shown by the following:

"MY DEAR DOCTOR:—The iron and glycerine mixture, the formula of which you have since published, and the chlorate of potassa, and also the spray of carbolic acid and lime-water, were used by you at half-hour intervals with favorable result in the treatment of my oldest son, who was attacked with diphtheria immediately after the death of two others of my children. November 15, 1874. From that time forth I used this treatment in my practice with the excellent results stated in your first paper.

"E. J. DARKEN,

"House Physician of Demilt Dispensary."

Now, as Dr. Jacobi's paper was read December 28th following, it is sufficiently evident how erroneous is the assertion that I merely formulated what had been suggested to me by it.

With regard to the employment of alcoholic stimulants I must differ from Drs. Rodman and Mundé, in believing that their routine employment in diphtheria is very general in the profession, and their use in bad cases well-nigh universal. Believing that great harm results therefrom more often than good, I protest against the distinctive feature of my treatment which relates to them being ignored or pronounced trivial.

Finally, while I decline to "stand and deliver" to Dr. Jacobi the credit of that for which I am in no way indebted to him—a system of treatment which was the result of much individual anxious thought and hard-earned experience—I am happy to add that I consider his "Contributions to the Pathology and Therapeutics of Diphtheria" as of great excellence and value, and that its perusal afforded me delight and instruction.

Very respectfully,

C. E. BILLINGTON.

157 LEXINGTON AVENUE.

## PROPRIETARY MEDICINES.

Dr. GEO. BAYLES, of this city, has favored us with a lengthy letter in reply to Dr. E. R. Squibb, in the last number of this journal. Our desire to give him an opportunity for a prompt hearing, and our inability to publish the letter entire, must be our excuse for merely making the following extract bearing upon the question of fact:

"I have explained to the profession how I came to use a certain pharmaceutical preparation, and in my paper I addressed the profession concerning its ascertained merits as a medicine, let it be prepared by one chemist or another, as its known formula makes it possible so to be. The drug referred to is *not a patent medicine*, neither is it a *proprietary medicine* in the sense of any secret belonging to its composition and mode of manufacture. Nothing hinders the trade at large from making it, if it has a merit that will guarantee a paying sale. If it might be as generally manufactured as it is generally sold, it would cease to have any suspicion attached to it of being proprietary, and it might be so manufactured as far as any known difficulties are concerned. Dr. Squibb can do it and possibly improve upon it.

"To use a medicine of known formula, and prove it to be of veritable value, and not to mention the source from which it was obtained, as a means of its identification, would be an affectation of sensitiveness, and all scruples of that kind ought to prevail before the medicine is tested. After the use of it, any concealment would be in an appreciable degree dishonest. Let us have disapproval and opposition tempered with generosity and common sense, and let us not stretch a good thing beyond its power of recovery to a state of healthy or normal tension.

"But with this expression of views I do not claim it to be as anything said in extenuation of unethical advertising. I repudiate, with all the force of a direct denial (in which, I believe, I am sustained by a good and reliable conscience, and a character for truthfulness), any supposed or intentional aid to the manufacture of the drug in question."

## RECTAL ALIMENTATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Two or three articles on Rectal Alimentation, published recently in the RECORD, induce me to give to your readers the outline of a case which came under my treatment a few months ago, in which this mode of introducing nourishment into the system was attended with encouraging results. I was called to attend Mrs. M—, at. 35, of very feeble constitution. August 27, 1877. Her symptoms indicated *ulcer of the stomach*, a diagnosis which was concurred in by other physicians who saw the case. A profuse and persistent vomiting was the most distressing symptom. Nothing whatever would remain in her stomach. The mildest nourishment, as well as medicines, would excite vomiting almost immediately after their introduction. About one week after my first visit I resorted to rectal alimentation, which was continued until her death, which occurred October 18th. During this period no food whatever was administered by the stomach. Although my patient finally succumbed, her death was due to the effects of the gastric disorder, and *not from inanition*. Indeed, from the time



I commenced the rectal injections of nourishment her condition improved, and her strength remained remarkably good until two or three days before her death, when she began to sink. I usually ordered the injection of a pint of beef-tea, or chicken broth, to which I directed to be added a teaspoonful of brandy; this to be used lukewarm, and injected slowly.

I had the satisfaction of keeping my patient alive for a period of over six weeks by rectal alimentation alone; during this period no food or medicine entered her stomach, except a little water drank daily.

It may be interesting, in this connection, to state that even after discontinuing alimentation *per orem*, and after employing all the remedies suggested by the experience of myself and others to counteract it, a persistent and very distressing vomiting threatened to carry my patient off by sheer exhaustion. At this stage, the idea suggested itself that, as the hydrate of chloral had been found to exert a curative tendency on external ulcers, why not internal as well? I at once discarded the use of all other medicaments except the hypodermic administration of morphia daily, and gave two-grain doses of the chloral in solution every four hours. The effect astonished me, prepared as I was and hoping for a favorable result. *After taking the first dose of chloral my patient vomited but twice during the time intervening until her death*, a period of between five and six weeks. From a condition of almost incessant vomiting she passed at once, as if by magic, into a state of almost entire freedom from this previously excessively distressing symptom; and although the strictly *curative* properties of chloral failed in this instance, yet it *did* effect an influence which can be called an important step in that direction. At all events, if we have in the hydrate of chloral a remedy with which we can control the persistent and exhausting vomiting which almost invariably attends ulcer of the stomach, we are in possession of a means by which to combat one of the most distressing symptoms of the disease; and although I am aware that more extended experience is required to establish the efficacy of this drug in the treatment of the disease mentioned, yet the remarkable results attending its use in this one case, entitle it, in my opinion, to more extended trial at the hands of the profession.

J. O. DAVIS, M.D.

QUAKER SPRINGS, N. Y., Feb. 7, 1878.

## Medical Items and News.

### CONTAGIOUS DISEASES—WEEKLY STATEMENT.

Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 16, 1878.

| Week Ending           | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-----------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Feb. 9, 1878 . . . .  | 0             | 11             | 80             | 6                          | 99       | 73          | 0          |
| Feb. 16, 1878 . . . . | 0             | 4              | 86             | 4                          | *171     | 84          | 0          |

THE ANNUAL DINNER OF THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS will be held at Delmonico's, on Wednesday, March 6th, at 6.30 P.M.

\*35 cases of measles were reported as occurring in the Juvenile Asylum, 157th Street.

HEALTH OF ROWING MEN.—Dr. E. H. Bradford has collected and analyzed the histories of all the graduates of Harvard College who engaged in the inter-collegiate regattas up to the year 1870, to ascertain if possible what effect their training had upon them. His conclusions coincided with those of Dr. Morgan, who performed a similar work for the oarsmen of Oxford and Cambridge, and are opposed to the opinions commonly held by the community and a large number of professional men. The injurious effects usually attributed to such great physical exertions are:

1st. Severe exhaustion after a race.

2d. Disturbance caused by the change from training to ordinary life.

3d. Consumption, emphysema.

4th. Heart disease.

5th. Nervous debility.

Dr. Morgan could find no instance of the first in all the Oxford and Cambridge races, and none have occurred among the Harvard and Yale men. In "scrub races" men have sometimes "given out," but these races are rowed without training.

One Harvard man complains that the change back to his ordinary mode of life brought on an attack of typhoid fever.

Dr. Morgan found 17 per cent. of the deaths among English oarsmen due to consumption. The report of the Registrar-General showed 28.9 per cent. of the deaths of males during the same years to be from this cause. Among the Harvard men Dr. Bradford found the percentage high; nearly six per cent. of the cases analyzed were consumptive. No facts in regard to emphysema have been obtained.

Dr. Morgan found four cases of heart disease among 294 men. Dr. Bradford's inquiries have not been sufficiently thorough to justify any conclusions.

Dr. Morgan found no cases of constitutional injury showing itself late in life. Dr. Bradford finds one man who attributes his ill health partly to over-exertion at the oar, but the connection between the disease and the alleged cause is rather obscure.

The majority of the rowing men consider themselves permanently improved—many not at all injured, and but a small number as positively injured.—*The Sanitarian*, November.

CALCULUS IN THE SUBLINGUAL DUCT.—Dr. F. D. Lamb, of Great Bend Village, Pa., reports a case of the above occurring in a young man, aged 26 years. It appeared as a suppurating swelling under the tongue, which discharged pus and disclosed a white and hard substance through the opening. The latter was enlarged, and the calculus, one-fourth of an inch in length, one-tenth of an inch in diameter, and weighing six grains, was removed.

DEATH OF PROFESSOR CLAUDE BERNARD, OF PARIS, FRANCE.—The death of this distinguished physiologist is announced in Paris. He was born in France July 12, 1813, and was therefore, at the time of his death, in his sixty-fifth year. For twenty-three years, and until death, he was Professor of Experimental Physiology in the College of France.

DIPHTHERIA IN BOSTON.—There is an alarming prevalence of diphtheria in the portion of Boston known as "Back Bay," due to a fault in the main sewer.

NEW YORK OPHTHALMOLOGICAL SOCIETY.—At the annual meeting of the New York Ophthalmological Society, the following officers were elected for the year 1878:

President, Dr. H. C. Eno; Vice-President, Dr. C. S. Bull; Secretary and Treasurer, Dr. G. R. Cutter;

Committee on Admissions, Drs. J. D. Rushmore, E. Curtis, E. G. Loring.

**SIMPLE MODE OF RELIEF FOR FOREIGN BODIES IN THE THROAT.**—A British naval surgeon, Dr. Beveridge, states that for foreign bodies in the throat, such as a piece of meat, etc., a simple mode of relief is to blow forcibly into the ear. This excites powerful reflex action, during which the foreign body is expelled from the trachea. The plan is so easy of execution that, if there is anything in it, it ought to be generally known and applied. — *Canada Medical Record*.

**MEDICAL JOURNALS IN MICHIGAN.**—With the commencement of the year we have two new medical journals making their appearance in Michigan, and from one city, Detroit. The *Detroit Lancet* is a monthly, octavo size, with eighty-two pages of reading matter, and is edited by Drs. H. A. Cleland and Leartus Connor. The first number is a creditable one, and is filled with very interesting and edifying reading.

The *Michigan Medical News* is a semi-monthly, and is edited by Dr. J. J. Mulheron, assisted by a corps of associates in different parts of the State. The present number is devoted principally to short abstracts of news and progress of medical science, and presents a great deal of useful and practical information in a small space. The number also contains two original articles, and an editorial in which the usual reasons for projecting a journal are given.

Both periodicals claim to be non-partisan, both are under the guidance of able journalists, and we hope both will succeed to the full measure of their respective anticipations. At least it will not be the fault of the respective managers if such is not the case.

**ITEMIZING MEDICAL BILLS.**—A recent number of the *London Lancet* contains some remarks upon this subject, bearing upon a discussion in the *Times* regarding physicians' bills. To certain persons who "want to have the obligations of patients to their doctors expressed in so many items, so many visits, so many bottles of medicine, so many pills, so many looks at the tongue, so many feelings of the pulse, so many uses of the clinical thermometer," it says, "the idea of specifying terms is impracticable. The old bills of doctors are fit only for antiquarian museums, and the items elaborately specified in them are never likely to be seen again. Roughly, every patient is entitled to know the principles on which he is charged. But there is a discretion in medical charging, inevitable in the very nature of things, which is fatal to the item system. It is not only that good medical men are conscious of rendering services for which they ask payment, but which it would not be edifying or even possible to express in items, but that this discretion takes the form of ingeniously reducing the amount of a bill when this seems disproportionate to the means of the patient."

**COMMENCEMENT OF UNIVERSITY MEDICAL COLLEGE.**—The thirty-seventh annual commencement of the Medical Department of the University of the City of New York was held on the evening of February 19th, at the Academy of Music. After a brief prayer Chancellor Crosby conferred the degree of Doctor of Medicine upon one hundred and fifty-three graduates.

Post-graduate certificates were conferred on Charles Dewey Pearson, M.D., and William Childs Tyree, M.D.

Honorable mention for proficiency and superior excellence, as shown in their examinations, was made of the following gentlemen: David Franklin, E. B. Ramsdell, Henry Levy, W. M. Gibson, Edward D.

Fisher, G. C. F. Williamus, George H. Felton, F. D. Bagley, F. S. Gould, Paul Ehrhart, E. D. Fuller, A. A. Denn, Dryden Johnson, W. C. Brownson, G. A. Macdonald, H. H. Hunkle, C. E. Quimby, Irwin Simpson, B. A. Church, Robert Milbank.

Honorable mention was also made of the following gentlemen for the superior merit and excellence of their theses: George F. Quimby, on Pneumonia; M. J. Roberts, on Museums.

The Mott gold medal was awarded to Peter Hughes, of New York. The Mott silver medal was awarded to Albert S. Burr, of New York. Honorable mention was made of specimens presented by Thomas C. Finnell, Jr., and Frank I. Disbrow.

The John E. Parsons prize for \$100 for the best examination for the degree of M.D. was awarded to David Franklin, of New York.

The prize for the best examination in Pathology and Practice of Medicine was awarded to Charles Elihu Quimby, of New York. The prize for the best examination in Materia Medica and Therapeutics was awarded to George Hurlburt Felton, of Massachusetts. The prize for the best examination in Obstetrics was awarded to Henry Levy, of New York. The prize for the best examination in Ophthalmology and Otology was awarded to John Erasmus Harper. Honorable mention was made of Edwin B. Ramsdell for his examination on the same subject. The valedictory was then delivered by George H. Felton, A.M., of Massachusetts.

Dr. John Hall, of the Fifth Avenue Presbyterian Church, addressed the graduates.

After congratulating them on the completion of their curriculum, he urged them not to neglect the literature of their profession. They could only hope for large success by having an eye on the ever-growing mass of contemporary practical knowledge. If they were to be thoroughly informed men, they must not allow a long vacation to follow their graduation, or postpone study until later years. For just in the degree in which success was reached would the time for reading be reduced. In regard to their relations with professional brethren, he had scarcely ever known any man to succeed in life who stood badly with his own class. The temptation to young men who are struggling slowly forward, under the shadow of some older and successful rival, is to criticise and depreciate. Success was rarely reached in any profession without merit of some kind, and the wise and honorable method—that which is becoming in a medical gentleman—is to own the merit frankly, and be silent regarding the supposed deficiencies. Men as individuals are often mean and base and grossly mistaken, but let a noble, generous sentiment be uttered in a crowd, and the crowd will be ready to appreciate and applaud. A professional man, therefore, who has inherent right to respect and confidence will do the best by throwing himself on the sense of justice of the mass of his fellows without proclaiming his own goodness or his contempt for those whom he deems successful by trick or by accident. Every profession had its charlatans; but as a rule, they may be left to themselves and the public. The successful men, as a rule, deserved their success. "I would rather," said Dr. Hall, "have a favorable verdict from a dozen of my own class than the plaudits of a thousand outsiders."

He concluded by urging upon them the claims of Christianity, maintaining that the medical gentleman failed to rise to his true level without it.

The Academy was tastefully decorated, was well filled as usual on such occasions, and the music was furnished by Grafulla's band.



## Original Lectures.

### DISEASES OF THE NERVOUS SYSTEM.

A LECTURE DELIVERED AT BELLEVUE HOSPITAL  
MEDICAL COLLEGE, DEC. 15, 1877.

By C. E. BROWN-SÉQUARD, M.D.

(Reported for the MEDICAL RECORD.)

LOSS OF CONSCIOUSNESS IN EPILEPSY—RELATION WHICH CHANGES IN THE CIRCULATION IN THE CEREBRAL LOBES HAS TO THAT PHENOMENON—CESSATION OF CIRCULATION AND LOSS OF FUNCTION—CIRCULATION IN THE BRAIN OF CHOLERAIC PATIENTS—MUSCULAR IRRITABILITY AND WASTE AFFECTED BY REST—EPILEPTIC AURA—IMPORTANCE OF ITS ARREST—MEANS FOR PREVENTING ATTACKS OF EPILEPSY—COMBINATION OF MEDICINAL AGENTS—THEORY REGARDING THE CAUSES OF PARALYSIS AND CONVULSIONS—CONCLUSION REGARDING TREATMENT OF PARALYSIS AND CONVULSIONS, ETC.

GENTLEMEN: When interrupted yesterday, as you remember, I was speaking of loss of consciousness as an effect of peculiar change in the circulation of the brain. As then stated, I proposed long ago to explain the loss of consciousness which exists in attacks of epilepsy, by the production of the contraction of blood-vessels in the cerebral lobes. Indeed, contraction does take place; it is part of the convulsions which occur in attacks of epilepsy. The same thing takes place in the blood-vessels—for instance, in the face, and the face becomes pale. There is no doubt that such fact exists in the beginning of almost all attacks of epilepsy. Although theoretically the organ of consciousness is situated in the cerebral lobes—although it is clearly because of the cessation of the circulation in the cerebral lobes that cessation of cerebral activity exists, it is also certain that it is not simply on account of that cessation of circulation in the cerebral lobes that loss of consciousness occurs. This can be proved in the following manner: in the first place, if we galvanize both sympathetic nerves in the neck, thereby producing the greatest contraction that can take place, thus completely excluding blood from the small arteries which enter the convolutions of the brain, we do not find that such contraction is alone sufficient to produce loss of consciousness. Disorder of mental activity is produced in the animal upon which we operate, but there is no complete loss of consciousness by any means.

In the second place, if we cut the four large vessels which go to the brain, so as to arrest the circulation there at once, the loss of consciousness which appears is not immediate.

In a large proportion of the attacks of epilepsy, loss of consciousness is immediate. In some individuals there is no time which can be appreciated between the aura and the attack.

So the loss of consciousness takes place before the time when cessation of circulation, if that were the cause, would have produced its effect. We cannot, therefore, look upon cessation of circulation in the brain as the cause of loss of consciousness.

#### CESSATION OF CIRCULATION AND LOSS OF FUNCTION.

Besides, I should call your attention—especially the attention of those who are making new investigations—to the fact that it is not at all certain that the view we all entertain is correct—namely, that loss of function

quickly follows the cessation of circulation in any organ, but especially in the brain. There are facts, indeed, which seem to show that that view may be wrong. In cholera, for instance, the circulation which takes place in the brain is, indeed, almost nothing; the blood after death is exceedingly black, and, not infrequently, it is found coagulated; it does not contain any marked amount of oxygen; yet a brain so badly nourished may retain its activity for several days.

There are choleraic patients who have this lack of proper circulation in the brain without manifest diminution of mental power. I know that this phenomenon can be explained otherwise than by admitting that a certain degree of nutrition is necessary for the activity of the various tissues of the body. It can be stated that during cholera there is some poison in the blood which acts as nutriment to the brain, but that view is so absurd and unacceptable that I simply speak of it as one of the ways by which we can explain that the brain can go on acting without being nourished by the ordinary elements which are in the blood, and which give power to the tissues. It is perfectly well known that if we bleed a man or one of the lower animals to death by cutting the head off, death takes place not simply because there is no more respiration, but because the brain is entirely emptied of blood. In that case, as well as in the case in which we cut the four vessels, there is certainly no circulation in the brain, and we all admit that it is due to lack of blood that the brain ceases to act. It is doubtful, however, if that view is correct. If we pay attention to certain circumstances, we cannot but admit that the causes, whatever they are, which produce cessation of circulation in the brain, also at the same time produce a peculiar irritation which stops the activity of the brain, just as a prick in the medulla oblongata can stop the activity of the brain without changing the circulation.

Galvanization of the *par vagum* produces a peculiar action upon certain brain-cells, and arrests their activity. In view of this fact, you can easily understand that in cases of cholera, although the circulation is altered greatly, it is not accompanied by an agent which gives rise to an irritation that produces arrest of activity. While if you cut the large vessels, a rapid change is produced in certain localities in the brain, and some agent is developed which acts as an irritant and arrests the activity of the brain-cells.

I have brought this point forward to show that a broad field yet exists for investigation, not only with reference to it alone, but to many others.

#### MUSCULAR IRRITABILITY AFFECTED BY REST.

Thus, for instance, we all admit that muscular irritability will go on diminishing from mere rest, mere lack of use. Certainly there are many cases in which we find muscular waste when they are not used, and this wasting may be due to some other influence than mere rest; there is an irritation also in most of these cases which can change nutrition. In certain cases of hysteria, muscular irritability is scarcely changed in patients who are completely paralyzed. Once I saw a young lady whose right arm was absolutely deprived of voluntary movement, and yet the muscles of the arm were perfectly well nourished, and responded as readily to galvanization as those of the unaffected arm. In that case there had been absolute rest, except during sleep, when there may have been some unobserved movements—at least almost complete rest for two years; so that rest is not in itself sufficient cause for the production of muscular waste. Wasting comes

from changes in nutrition produced by irritation. From this cause the wasting of muscles associated with some diseases of the spinal cord is so rapid that they may be reduced to one half their original size within the short period of a single week. Rapid change of that kind is exceedingly rare, however; yet in brain disease, if the muscles waste away, you may be sure that there is considerable irritation in the brain or secondary influence upon the spinal cord produced by disease in the brain.

#### LOSS OF CONSCIOUSNESS.

Now, returning to loss of consciousness, I will say that, in attacks of epilepsy as well as in syncope, lack of cell-activity in those cases is due to the effect produced by poisons such as is produced by morphine or any other narcotic remedy when rapid cessation of activity of the brain is produced; that is, arrest of activity in brain-cells is produced by disease in the same manner as it is produced by any of the narcotic poisons. It is by inhibitory influence that the activity of the cells is arrested, and this inhibition may be permanent or not, according to circumstances.

#### EPILEPTIC AURA—IMPORTANCE OF ITS ARREST—MEANS FOR PREVENTING ATTACKS OF EPILEPSY.

I pass now to another point. I said yesterday that there is very frequently an *aura* in disease of the brain causing convulsions. It is very important indeed to examine with reference to this point; for if you find an *aura*, it will lead to the use of a series of means which may stop an attack of epilepsy. If an attack of epilepsy can be arrested, we do more than simply arrest that attack; for, during an attack of epilepsy, changes occur which prepare the brain for future attacks; so, if one attack can be arrested, you may perhaps stop a generation of attacks. It is important, therefore, to prevent an attack of epilepsy. Now, with reference to the means of preventing these attacks. Means for preventing the occurrence of attacks of epilepsy were resorted to centuries and centuries ago. Galen insisted particularly upon the importance of ligaturing the limbs for this purpose. Suppose, for instance, there is an *aura* starting from the finger—a peculiar sensation or muscular spasm; Galen, and a great many physicians since his day, and even in our own times, insisted upon the application of a ligature to the arm, with the view of preventing the passage of some influence from the extremity to the brain. In reality, we succeed very frequently, by the application of a ligature to the extremity, when the *aura* is there, in arresting an epileptic attack; but it is not because we prevent something from going to the brain, but it is because we send something to the brain, and that something is an irritation which acts so as to arrest the irritation already there, and which, if undisturbed, would produce the convulsion. It is the same as that which occurs in diseases of the spinal cord, in which, by taking hold of the big toe, you arrest completely, in most cases at least, convulsions occurring in the lower limbs. For example, in cases of spinal epilepsy, the convulsions may be most violent, may last all day, and may recur upon the least touch of any part of the skin of the lower extremities; in those cases it is not rare at all, especially in certain forms of the disease, that drawing upon the big toe brings about a relaxation of the muscles and ends the convulsions. An arrest of the morbid activity in the cells in the spinal cord is produced by irritation of the nerves which go to the big toe, and that arrest remains sometimes for hours, and sometimes for days; but you can reproduce the same phenomena in

the same patient. Whenever the convulsions exist, you can witness the influence exerted by this irritation.

As soon as I was possessed of the idea that it was through irritation exerted by the ligation, that an attack of epilepsy was cut short, I tried and found that other irritants applied to the skin produced the same effect; for example, such as extreme cold, great heat, pinching the part; in short, any irritation of the nerves in the region where the *aura* commences may be sufficient to arrest an attack. In fact, the patients themselves, if they have strength of will sufficient, when upon the point of having an epileptic seizure, can, by moving the limb rapidly, rotating the arm, etc., perhaps stop an attack. Any kind of irritation from the periphery may act upon the brain and arrest the morbid activity of the cells, and that irritation can succeed even when applied upon the other side where the *aura* exists.

As regards other forms, if the *aura* starts from the stomach, anything which irritates the stomach powerfully, as a violent emetic, will save the patient from an attack of epilepsy. Certain other means may also succeed, as acting upon the bowels by an enema that will produce a rapid and considerable action of the muscles. Pressure upon the bowels may bring about the same result, if the sensation starts from that region. A galvanic shock, on the contrary, will produce an attack in many cases. If the patient has simply a vague sensation of disturbance without any distinct place from which the *aura* arises, any means of producing irritation of the skin behind the ears, or between the shoulder-blades, may be of some service, such as the application of ice, a sharp blow from the hand, galvanic shock, etc. Any medicine which acts with great power either upon the stomach or upon the bowels, or which acts with great power upon the nervous system, may be of service in these cases.

#### MEDICINAL AGENT FOR THE ARREST OF ATTACKS OF EPILEPSY.

A common remedy which is employed with some benefit consists of three or four grains of the sesqui-carbonate of ammonia in a drachm or half-ounce of tincture of columbo, or gentian, or rhubarb; it is the alcohol chiefly that acts. Taken without dilution, it is rather strong, and therefore a trifling quantity of water may be added. It should be carried in the pocket, so that it can be used at the shortest warning. Running, jumping, anything and everything that produces a change in the circulation and respiration, may be of service for the arrest of an attack of epilepsy. You may not know what means will operate best upon a patient; but, recommending such means as have been mentioned, he may try one after another until he finds that which succeeds best in his individual case. In that manner, you can, perhaps, save the patient from an attack.

#### COMBINATION OF THREE MEDICINES.

The combination of three medicines I have found has considerable more power in controlling epilepsy than the use of one alone or of two combined. If you employ the bromide of potassium, you must employ with it the bromide of ammonium and the iodide of potassium or ammonia. A combination of these three salts acts with far greater power than when either one is used alone. It is essential always to add the bromide of ammonium if the other bromides are employed. In these cases it is also essential to employ some means of counter-irritation at the base of the brain; or, in cases of distinct *aura*, some means of counter-irritation at the place where the *aura* starts.



In those cases in which the aura starts in the finger, I have succeeded most wonderfully in controlling the attack by the application of a circular blister in the shape of a ligature to the finger itself. There is, therefore, a series of means which can prove successful in preventing attacks in these cases. As I said yesterday, if we can do so much in the way of controlling attacks of epilepsy, why should we not be able to do the same against paralysis, as epilepsy and paralysis are in many respects alike in their mode of production.

#### PARALYSIS AND CONVULSIONS.

Before speaking further of means of treatment, which may be of immense importance if modified successfully, I will say a little more with reference to the doctrine regarding the production of paralysis and epilepsy, and also of what I have to substitute for the generally admitted theories.

As you well know, the facts mentioned in these lectures seem to be quite in opposition to the views held by most physicians, if not by all. When paralysis exists, for instance, in the right arm, and we find convulsions upon the right side of the brain destroyed, it is admitted that the centre of the will-power for the right arm has been destroyed, and that it is very natural, therefore, that the right arm should be paralyzed. In the same manner, if we excite the convulsions of the brain, or any part of the voluntary motor apparatus—such, for instance, as arises from slight inflammation at the surface of the brain—and the patient is attacked with convulsions, it is quite natural, according to the theory generally admitted, to look upon the irritation there as having produced such convulsive movements—as having put into play the motor activity of the part where the disease exists. These two illustrative instances—the paralysis on the one hand, and on the other the convulsions—are apparently in perfect harmony with what is supposed to be established. But, as I have said many times, we find the same thing taking place, not only upon the opposite side, but upon the side corresponding with the seat of the disease. Certainly the theory cannot apply in these cases. Besides, we find the same thing occurring when the disease is in parts of the brain which are not able to produce the least movements when irritated by galvanism, and which we know, and we all agree, do not belong to the voluntary motor apparatus. For instance, disease in the posterior lobe of the brain, according to the theory admitted, should never produce paralysis or convulsions; but disease there often produces both convulsions and paralysis. We have then something taking place, and occurring very frequently, which is the reverse of what is generally admitted. What are the explanations given by physicians and physiologists of the fact which seem to be decidedly against their views? The explanations, I must say, have been very few and very timid; and, indeed, I think that I have myself, in fighting against the admitted theory, put forward these explanations very strongly. I believe that what I shall now say can at least certainly explain some of these cases. For instance, in a case of paralysis and convulsions upon one side of the body; we make an autopsy and find disease in the posterior lobe of the brain upon the opposite side. We know that disease exists at that point—we are absolutely certain of it; but, it is said, what evidence is there that there is no disease elsewhere? There may be undetected disease in the part belonging to the voluntary motor apparatus, when the brain is examined in the limited manner necessary at an autopsy; there may be disease in some other part of the brain which cannot be recognized by the naked

eye; so we cannot be certain that disease does not exist, unless further examination is made.

There are many cases which at once answer this objection. If we find, for instance, that a patient is stricken with symptoms of hemorrhage in the brain; he has all those symptoms which are manifested when hemorrhage in the brain occurs, and yet had no manifestation whatever of brain disorder previous to the attack, which comes on suddenly. Besides the symptoms belonging to hemorrhage in the brain, he has paralysis in the right arm, convulsions in the right arm and face, and he dies within a few hours, as he may when the hemorrhage is limited. An autopsy is made, and we find hemorrhage has taken place into the posterior lobe. Can we admit that there was disease elsewhere? What kind of disease could have been produced so rapidly? What kind of disease could have produced such paralysis as we find in the arm, occurring just at the time the symptoms of hemorrhage occur?

It is quite certain that in such cases we cannot say that paralysis and convulsions depended upon something else than the disease we see. Why should not the same thing be true when the paralysis and convulsions are upon the corresponding side of the body? A great many cases besides hemorrhage will show the same thing. Embolism and softening may produce the same result. For instance, embolism occurs, and we have nothing except the fact that there is a plug in a blood-vessel, and the congestion and softening which surrounds the part. If that lesion exists in a part which does not belong to the voluntary motor apparatus, we must admit that the paralysis, as well as the convulsions, is due to the disease seen, and not to the disease imagined and which we do not see.

Other explanations and answers to these might be given; but, as time presses, I will not indulge in them.

There is another source of explanation which is very good indeed. For instance, in those cases in which disease has destroyed the greater part of the voluntary motor apparatus in the region where it is located, and there is neither paralysis nor convulsions. How is the absence of paralysis and convulsions to be explained? It might be said—I do not say that it has been said—that paralysis does not appear because only a part of the voluntary motor apparatus has been destroyed. That may be, and that is the case sometimes when there is slight disease; but why is it that there is neither paralysis nor convulsions when a considerable part of the voluntary motor fibres are destroyed? Then it might be said, that though apparently diseased, yet the tissue remained able to act. This explanation is certainly very good, and may be true, but there is no proof of its truth. In those cases, for instance, in which there is softening following embolism, it may be that the nervous tissue remains active, although it has undergone considerable alteration.

The same may be true also in cases of tumors pressing upon different parts of the brain; there may be simple atrophy of brain-tissue, but no loss of function, however altered the structure may be. Certainly, this is a passable explanation for a number of cases. It is quite certain that nerve-fibres, for instance, have one essential element—the axis cylinder—and it may be that that part remains active, although there is considerable pressure upon it. But admit that this is true; what then of those cases in which the tissue has been so destroyed that there was no normal tissue left, and if the cylinder axis remained visible it had no cells which were not considerably altered? There are such cases, perhaps forty or fifty, in which disease

has struck parts at the base of the brain; many more in which the convulsions were involved, and no tissue left which was unaffected.

There are then two series of cases: those in which the brain-tissue is completely altered, and those in which tissue is missing. There has been, however, no marked paralysis in a number of those cases, and there has been also no convulsions. It is clear, therefore, that there are a great many facts which cannot be explained by, and which are in absolute and direct opposition to, the views generally admitted.

THE THEORY BROUGHT FORWARD AS A SUBSTITUTE FOR THAT GENERALLY ADMITTED REGARDING THE PRODUCTION OF PARALYSIS AND CONVULSIONS.

What then is the theory which we are to substitute for that generally admitted with reference to production of paralysis and convulsions?

I have many times said that paralysis and convulsions appear through the same mechanism, however different one symptom is from the other. If you admit, as I do, that the cells in the gray matter of the brain are endowed with the same function, the explanation of the production of paralysis and convulsions is very plain. For instance, the cells which are employed in moving the right arm are scattered in the brain, as well as are the cells which serve for any special function of the brain. These cells being so scattered, and belonging to one function, are connected one with the other by fibres, so that they may act with harmony.

Suppose that, the cells being so distributed, an irritation comes from the bowels; it is transmitted to certain parts, and instead of going to certain other parts, it meets, in the part to which the irritation is transmitted, cells which are then employed in the production of voluntary movements, or those which are able to produce movements by reflex action. These are two distinct kinds of cells, as many facts show. If that irritation reaches cells which are employed in producing voluntary motor action of the arm, for instance, it produces the same effect as does irritation by galvanism of the nerve going to the arm at any point at which it can be reached in the neck—the cells are stopped in their action, their activity is suppressed, and paralysis occurs.

If, on the contrary, an irritation, starting from the bowels, acts upon those cells which are able to produce reflex movements—whether these cells are situated in the base of the brain or elsewhere—those cells are put into play and convulsions occur; that is, reflex movements of a convulsive character.

What takes place when irritation starts from the bowels is the same as that which occurs when disease in the brain exists. An irritation starts from the posterior lobes, for instance; it spreads into the brain, and if those cells, wherever they are, which serve for voluntary motor movements, are acted upon, they are exhibited in their power to produce motion, and there is paralysis as the ultimate result of the irritation. If, on the other hand, the irritation starts from the same place, and reaches cells which are connected with the production of reflex movements, convulsions will appear. In both instances we have the same elements; there is an irritation starting from some place, and travelling to some cells, and there either inhibits their activity or produces reflex movements—produces either paralysis or convulsions. The irritation may inhibit the action of the cells which serve in the expression of ideas in speech, and give rise to aphasia.

I have not time to dwell further upon the opinions which I hold, in order that you may understand them

better; but I will say that paralysis or aphasia, or loss of function in any part of the brain, can occur by attacks as well as convulsive movements can occur in attacks.

You can now easily understand how an irritation operates to produce attacks of paralysis, aphasia, amaurosis, etc., and it can be easily seen that when the paralysis persists there is also something of the same kind of action. The objection to this would be: How is it such power can be kept absolutely inactive for so long a time as it exists in paralysis which is persistent? We know already that, in many cases of paralysis produced by organic disease of the brain, there has been sudden change for the better; and there are cases in which rapid cure has occurred, although the organic cause which has produced the paralysis has persisted. In fact, fluctuations in the loss of function in any part of the brain are frequently observed, and these fluctuations may go on to such an extent that the patient may be cured very rapidly, and in certain cases very suddenly. If there was paralysis or loss of function because of the existence of the organic disease, the lesion persisting, the effect would persist. But it is not so. It must be that something exists which ceases to exist at the place where the effect is produced.

We know that in animals we can arrest the activity of those cells which serve for the production of sight, and the activity of cells serving to all the mental faculties and the will. The activity of the cells employed in any of the functions of the brain can be suddenly arrested by certain irritations. In cases, for instance, of hemorrhage into the upper part of the spinal cord, without possible pressure upon the brain, there may be immediate loss of consciousness. There are two such cases upon record. Certainly there was loss of activity of all the functions of the brain as regards power of motion and sensation, all will-power, and that from an irritation which started at a distance from the brain. Certainly, also, there was no pressure upon the brain in these cases. In these cases, also, consciousness was restored after a time.

Sometimes we produce death rapidly, and destroy, therefore, all the activity of the brain by a mere prick.

We can also produce a persistent amaurosis by a mere prick of the retiform bodies, and the amaurosis appears instantaneous. There is no direct connection between these bodies and the eye, yet the amaurosis persists while the animal lives; and I have had an animal that lived more than two years after the production of such a disorder of vision.

All will-power and all sensibility also may be destroyed by a mere prick in certain parts. If, for instance, the spinal cord in animals be pricked in the dorsal region, it is found that sometimes there is produced a cessation of the activity of cells there, and we have anaesthesia upon the opposite side and loss of will-power upon the corresponding side.

We find in cases of disease of the brain that the pulse is weakened and is exceedingly irregular as long as the patient lives; it is an arrest of the action of the heart while the disease exists in the brain. If the action of the walls of the heart can be so modified, and persistently modified for months and months, the same thing may exist for different parts of the brain.

In the same manner, reflex activity may be arrested for months and months, as, for instance, the cell activity which controls the contraction of the sphincters of the bladder and rectum, and the loss of control over the action of these parts may be permanent. The same thing may take place for the cells which control voluntary movements.



CONCLUSION REGARDING TREATMENT OF PARALYSIS  
AND CONVULSIONS.

From what has been said, what are the conclusions reached regarding treatment? Upon this subject I have time to say only a few words. The leading principle is that you are to obviate the effects produced by disease in the brain by means of irritation upon the skin in the parts which are affected. Suppose the arm to be paralyzed, then the irritation is to be applied so as to restore the activity of those cells which serve for voluntary movements of that part. The same means which have been suggested as those to be applied against an aura are to be applied against paralysis.

## Original Communications.

IMPROVED METHOD FOR  
DETECTING LEUKÆMIA DURING ITS  
EARLY STAGES,  
AND FOR ENUMERATING THE WHITE BLOOD-CORPUS-  
CLES IN DISEASE GENERALLY.

(Read before the New York State Medical Society.)

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LEUKÆMIA or Leucocythemia, as it was called by its discoverers, Virchow and Bennett respectively, on account of its characteristic and remarkable lesion, increase of the white or colorless corpuscles of the blood, has, from the time of its first detection thirty-two years ago, been a subject of much interest and speculation. So much has this been the case that it seems an astonishing fact that, notwithstanding the attention which it has received the world over from scientific physicians—notwithstanding it appeared even to its first discoverers to hold the key to some of the most important and interesting problems in relation to the origin, development, and destination of those supremely vital constituents of our organisms, the red and white blood corpuscles, researches through the period of thirty years have thrown but little light upon the nature, the causes, or the early symptoms of this remarkable malady, and any successful mode of treatment still remains quite unknown.

The reason of this obscurity which hangs about the origin of leukæmia, is, I think, chiefly to be found in the want which every physician (who employs, as all should do, the microscope as a constant aid to diagnosis and prognosis) must have experienced, of some easy, practicable method for enumerating the red and white corpuscles—a process which any of you who may have tried the experiment will doubtless agree is, if undertaken in the ordinary and obvious way of counting them as they lie in rouleaux in a drop of fresh blood, both troublesome and uncertain. Another difficulty which obstructs most exact observations in cases of suspected leukæmia, except in hospital wards, is, that a drop of blood spread out in the usual mode upon a slide beneath a thin glass cover, only remains in a suitable condition for investigation for half an hour or an hour, and therefore, if collected at a distance from a physician's office, is nearly or quite worthless before it can be submitted to microscopic

examination, even supposing that other calls upon our time and attention could be made to give place to this research.

From these various causes it has usually happened that practitioners of medicine have been induced, often compelled, to postpone the thorough investigation of the blood, in cases of supposed leukæmia, until decided general symptoms manifest themselves, and, unfortunately, until the curable stage—if there be any such period to this malady, which, if it does exist, is as yet unknown to medical science—has passed by.

The object of the present essay is to bring before you a simple and easy method which I have devised for the purpose of obviating the deterrent influence of these obstructions to the frequent and early examination of all cases, when there is ground for the least suspicion that any increase of the white blood-corpuscles is occurring, and I hope thus to pave the way for a much more complete knowledge of leukæmia, as well as other affections during which changes in the number of the leucocytes take place, and perhaps for very important discoveries in regard to the origin and destination of the cellular elements of the circulating fluid.

My plan of accomplishing this desideratum will probably, however, be more easily understood in all its details if we take a brief preliminary survey of what has already been accomplished by previous investigators in this department of microscopic research.

Among the older methods for determining the globular richness of the circulating fluid, as referred to by Henri Bonie in his recent monograph upon the white corpuscles of the blood, Paris, 1876—that of spreading out the fresh liquid in a thin film between a slide and cover, and then counting the white globules in a series of given areas, say quarter-millimetre squares—is one of the earliest. The objections to this plan are, briefly: 1st, that it is almost impossible to secure equal bulks of blood in equal areas of film: and 2d, that a variable percentage, perhaps one-half or even two-thirds of the leucocytes, are hidden from view by the rouleaux of red discs, and so escape enumeration. The second mode of determining the ratio of the two kinds of corpuscles, and that adopted by Hirt, Moleschott, Virordt, Welker, and others, is to dilute the blood with anisotic liquid, filtered liquor sanguinis, or artificial serum, and then count directly the whole number of red discs and of leucocytes in certain measured quantities of the mixed fluid. This plan, whilst much more exact than the former, can never become generally useful, because, as remarked by Malassez, when employed upon sufficient quantities of blood, "elle devient alors d'une exécution bien difficile en raison du temps énorme qu'elle exige et de la fatigue extrême qu'elle cause; il suffit d'essayer une seule fois cette méthode pour s'en convaincre: et je puis dire qu'il n'y a guère lieu d'espérer acquérir par la pratique plus de rapidité dans la numération et plus de résistance à la fatigue." Furthermore, as this author observes, such a plan gives very incomplete results, since they are only relative and may represent an apparent increase in the white blood-corpuscles as I have myself noticed, when in reality both they and the red discs are diminished in number, when this diminution affects the red corpuscles to a greater extent than the white.

The method which Malassez has so ingeniously devised, and which is now known by his name, is practised, as I need scarcely remind you, by the aid of an apparatus for mingling a small quantity, say the one-tenth of a drop of blood, with ten drops of artificial serum, and then introducing a minute portion of this

mixture into a capillary tube of known capacity, and counting the corpuscles, red and white, under the microscope in an accurately measured length of the tube. Hayem and Nægel's improvement upon Malassez's plan substitutes a glass cell of the depth of one-fifth of a millimetre for the capillary tube.

These modes of enumeration have added very much to the precision of our observations in regard to variations in the sum of the red discs, and have already given a new impetus to our study of the vital fluid; but as respects the white globules, they are both subject to an obvious cause of fallacy, so that, even if they were much more convenient, and could be practised without expensive apparatus, they would leave much to be desired. The error to which I refer as almost certain to vitiate our conclusions concerning the white globules of the blood, when thus enumerated, depends on the strong tendency which these cellular elements possess to become attached to glass, and, doubtless, to other surfaces with which they come in contact. This proclivity, observed by every student who irrigates a specimen of fresh blood with water beneath the microscope, is not met with in the red discs, and must therefore lead to incorrect estimates of the proportion existing between red and white corpuscles of blood passed through capillary tubes, to the inner surface of which the leucocytes adhere, whilst the red discs do not.

The idea of counting the white corpuscles in a thin film of dried blood first occurred to me during an examination made for a member of the profession here in Albany, Dr. F. C. Curtis, whose interesting report of the case appears in the *American Journal of the Medical Sciences* for October, 1876, p. 405.

In the course of my observations upon the blood of different nations as represented at the Centennial Exhibition in Philadelphia, year before last (Vide *Am. Jour. of Med. Sciences*, Jan., 1877), I had occasion to measure a great number of the red discs as spread out by Prof. C. Johnson's method, in thin layers of blood drawn from the different Commissioners, and dried upon glass slides, and I was much struck with the ease and certainty with which the white corpuscles could be detected, discriminated from the red, and enumerated, also in healthy blood. As a consequence I was led to experiment further upon cases of true and of suspected leukaemia, with a view of utilizing for the benefit of the profession this simple fact.

After long consideration and numerous trials, the following plan was elaborated. In the first place, to obtain and prepare your specimen, you require a clean sewing needle (No. 6, sharp, answers best, but any kind will do), and two ordinary microscope slides (preferably of plate glass with ground edges), one of which should have a blank label pasted near its extremity. Having punctured the middle or ring finger of your patient by a quick stab with the needle, and squeezed out a drop of blood, about the size of a large pin's head, such as I show you here, touch the apex of this drop to the surface of your labelled slide near its end, and then immediately spread it out by means of the edge of your other glass slip applied to the portion of the blood-drop which adheres to the first slide, and whilst holding slide No. 2 at an angle of 45°, drawing it rapidly along the flat surface of No. 1 in such a way as to leave a faint reddish film equally distributed over the latter. In half a minute or less your preparation dries, and, if protected from dust and moisture, may be examined any time between this and our next Centennial in 1876.

After writing the name of the patient, with the date at which it was obtained, upon the label (and, this

ought always be done at once), the specimen should as soon as convenient be simply inspected under a power of 200 diameters. This preliminary examination may be made by any one having even a rudimentary acquaintance with the use of the microscope, and by it a mere tyro can determine, on comparing it with a similarly prepared sample of blood from a healthy person, the presence or absence of any marked change in the ratio of the red and white corpuscles. In order, however, to establish the amount of alteration, should any exist, the sample of blood thus prepared ought to be submitted to some skilled microscopist for further investigation.

For the purpose of facilitating the enumeration of the colorless globules, and ascertaining their proportion to the red discs, without undertaking the almost interminable task of counting all the latter contained in a given area of the film of blood, I would suggest the following scheme:

Provide, in the first place, a stage micrometer ruled in  $\frac{1}{2}$  mm., upon glass about half the thickness of an ordinary slide. Lay your blood specimen upon the stage of the microscope, find an area of  $\frac{1}{2}$  mm. in width, by 5 mm. in length, where the corpuscles are spread so thickly as to almost touch, and yet are in no case superimposed upon each other. Such an area as this can generally be met with quite readily, and when discovered lay upon it your  $\frac{1}{2}$  mm. micrometer face downwards, so that its lines can be seen (somewhat indistinctly perhaps) at the same time the blood-globules are in focus. Secondly, procure an eye-piece micrometer with very coarse divisions, such as this I here exhibit, the lines of which are  $\frac{1}{16}$  of an inch ( $\frac{1}{8}$  of a millimetre) apart, and place it in your "A" eye-piece, so that its lines divide the field of view into from 8 to 12 transverse bands, each about the width of 5 red blood-corpuscles, as seen with the aid of a  $\frac{1}{2}$  or  $\frac{1}{4}$  objective.

These little pieces of apparatus are merely aids to the accurate counting of the red discs, which operation should be performed very precisely with the eye-piece and objective you propose to use in subsequent investigations, and their number carefully recorded as a unit of enumeration for the white corpuscles. This counting I have found to be most readily accomplished by adjusting the camera lucida, drawing on white paper the outlines of the field of view with both the transverse lines of the eye-piece micrometer, and the vertical lines of the superimposed stage micrometer; and then counting the individual globules in a band at a time, dotting each corpuscle as it is enumerated upon your paper with a lead pencil, so that none may be missed, and none may be counted twice.

In order to attain perfect accuracy, it will of course be necessary to count the red corpuscles as well as the white ones in each successive field; but as even such a task would only yield approximative results (on account of the necessary inequality with which both kinds of globules are spread out upon the glass), it is not worth while to undertake it. For practical purposes we may consider the number of red discs in each field of a given lens and eye-piece, where these discs nearly touch, but are not piled upon each other, as identical, and the sum of the white corpuscles observed in ten successive fields answering this description, divided into ten times the number of red discs counted in one such field, shows us the ratio of the white to the red corpuscles. For example, with the  $\frac{1}{2}$  inch objective and "A" eye-piece of my Powell & Leland's stand, I find the field of such a single layer of blood as that above described shows me 3,000 red discs, and that ten fields display about 100 white globules. Dividing



now 100 (the number of leucocytes) into 30,000 [the number of red discs in ten fields (each  $\frac{1}{4}$  a millimetre wide)], I obtain the fraction  $\frac{100}{30000}$ , or, reducing this to its lowest terms,  $\frac{1}{300}$ , as the proportion which the white bear to the red corpuscles.

In counting the white globules it has seemed to me advisable to first look carefully at each corpuscle within the upper transverse band, as marked off by the eye-piece micrometer above mentioned, then to scrutinize all those in the second band, and so on until all are inspected. In doubtful instances, the leucocytes may generally be distinguished from the red discs by turning the fine adjustment screw so as to raise the lens a very little, when the white corpuscles usually display a peculiar fatty lustre which suffices for their discrimination. Care must be taken to avoid mistaking unusually large aggregations of the (fatty?) *molecules* of the blood for leucocytes.

Sometimes, in examples of profound anæmia, it is difficult, or even impossible, to obtain satisfactory fields of the kind I have described. In such instances, our only resource is to select an area where there are ten contiguous fields over which both kinds of corpuscles seem equally distributed, and then, counting the red discs in one field, and the white globules in all, proceed as before directed.

This method is most readily applied with the aid of a mechanical stage, but may be employed if sufficient care is exercised by an individual having command of any one of the cheaper forms of the microscope, provided it affords sufficient amplifying power (say 200 diameters), with good definition.

Having thus, by my improved method, determined the true ratio of the white globules to the red discs, it becomes an easy matter to calculate the actual number of the leucocytes in each cubic millimetre of blood, after we have determined by the aid of Hématimètre, of Hayem & Nachet, or of Malassez, the number of the red corpuscles, in that quantity of the circulating fluid.

This little piece of apparatus, which I here exhibit, is merely a very ingenious contrivance for mingling an accurately measured fraction of a drop of blood with 100 times its bulk of serum, and then counting the red and white corpuscles in the  $\frac{1}{100}$  of a cubic millimetre of this mixed fluid, measured under the microscope with scrupulous exactness. For example,  $\frac{1}{20}$  of a cubic millimetre of my own blood, diluted with  $\frac{1}{2}$  a cubic centimetre of artificial serum, contains in each  $\frac{1}{100}$  of a cubic millimetre of the mixed liquid about 112 red corpuscles; multiplying this number by 500, we obtain the number of red discs in 1 cubic millimetre of the diluted blood as 56,000. But as the fresh blood was diluted with 100 times its bulk of serum, we must again multiply this sum by 100, to find the number of red corpuscles per cubic millimetre of pure blood, and thus we obtain the product 5,600,000 as the globular richness of this particular specimen.

It is obvious that a determination of the total number of the red discs is, in general, a necessary preliminary to arriving at a definite conclusion in regard to whether the leucocytes of the blood in any particular case are actually increased in number; because if, for example, the red discs are diminished to one-fourth of their usual amount, whilst the white corpuscles are unaltered in quantity, we would be apt to conclude, without this precaution, that four times the normal number of leucocytes were present. In a recent investigation of my own, made upon a case under the observation of Prof. Wm. Pepper, in the Philadelphia Hospital, and which he kindly permits me to refer to

here in advance of its detailed publication, the ratio of the white to the red corpuscles was found to be 1 to 56. On this account a previous attendant had diagnosed leukaemia, but upon counting the red discs by Hayem's apparatus I found the circulating fluid so impoverished as to contain only 810,000 corpuscles to the cubic millimetre instead of 5,000,000, which is about the average in health. Such a change is a reduction to about one-sixth of the normal number, and if we could return to this man's blood the 4,200,000 red discs he had lost it is plain that the usual proportion between the white and red corpuscles, viz., 1 to 336, would be restored, and therefore that the actual number of leucocytes was unaltered. It seems to me difficult, by the way, to avoid the deduction, even from this single instance, that the general laws of our organisms which regulate the number of the white blood-corpuscles must be *entirely independent* of those which control the total number of the red discs, because here we have an example of the latter so profoundly reduced as to fall below one-sixth of their normal quantity, whilst the leucocytes remain entirely unchanged in amount.

In connection with this subject of counting the red corpuscles by means of Hayem's apparatus, I desire to put on record my dissent from the claim to strict accuracy impliedly made for it by some recent observers. In my experience, at least, the areas of tenths of a millimetre square vary, in different parts of a specimen of healthy blood, so much that they sometimes—rarely, it is true—contain as few as 104, on the one hand, and as many as 128 on the other. Now those figures represent 5,200,000 and 6,400,000 red discs per cubic millimetre respectively, and since the corpuscles are never arranged in rows, like grains of corn in a field, but are scattered irregularly upon the glass, like wheat sown broadcast, or rather, like chestnuts dropped thinly or thickly from a tree, just as pure chance dictates, I think we must accept the possibility of accidental error (as admitted by Malassez in his original papers) of at least 100,000 corpuscles on either side of the truth. Moreover, unless the observer makes an absolutely honest and impartial examination, rigidly refusing to allow himself to count rich fields if he has a theory of plethora, and poor fields if he has an anæmic theory to support, I do not consider that his results are conclusive within 500,000 corpuscles per cubic millimetre either way—that is, in the direction of deficiency or of excess.

Although my method, as described above, has been chiefly applied as yet to the diagnosis of leukaemia, it has, as I conceive, a far wider application, and may become in the near future a very useful aid, only inferior in importance to the pulse and temperature in the recognition and prognosis of various diseases, particularly those in which active inflammatory processes take a prominent part. Especially will this be the fact if, as is claimed by Malassez, Bonne, and others, in cases of abscess, typhoid fever, scarlatina, in parturient women, etc., etc., rapid increase in the number of white globules (leucocytosis of Virchow) during the febrile excitement, or at least of pyogenesis, followed by an equally rapid decrease during convalescence, occurs.

Finally, it seems probable that extremely valuable facts in the domain of therapeutics may be obtained by investigations into the changes as to number undergone by the red and white corpuscles during the administration of tonics, alteratives, and so forth, as commenced by Drs. Cutler and Bradford, of Boston, in healthy and diseased conditions of human and animal organisms.

## MEDICATED COTTON-WOOL IN THE TREATMENT OF EAR DISEASES.

By SAMUEL SEXTON, M.D.,

NEW YORK.

In treating chronic purulent inflammation of the middle ear, it is often desired by the surgeon to apply external medicaments which do not increase the humidity of the parts, as moisture is well known to be a promoter of cell-proliferation and its consequences, namely, suppuration and polypoid growth. This also applies to like conditions of the meatus auditorius externus, which may exist as primary affections, or, as is mostly the case, as a sequence to the middle ear disease. For this purpose powders have long been recommended by aurists, but they are objectionable for many reasons, chiefly on account of the difficulty attending their application and removal; and, furthermore, when saturated with secretions, they become heated and are likely to act as a poultice in the meatus if not frequently renewed.

Such objections do not apply to the use of water-absorbing cotton-wools, and they have, therefore, been gradually growing in favor. After more than a year's experience I have adopted the following method of using wool in the cases under consideration: The cotton-wool selected for use is prepared by such washings as are necessary to free it of oils, etc. When dried, it absorbs water like a sponge, and is known as water-absorbing cotton-wool.

After syringing the ear, the meatus and parts beyond are dried by passing a suitable brush formed by winding some of the wool tightly on the end of a vulcanite carrier made for this purpose.

The meatus being dried is now ready to receive the medicated wool.\* This is prepared for introduction into the meatus by being rolled rather loosely upon the end of the carrier, the diameter of the roll being usually a little smaller than that of the meatus, and about two to three centimetres long for adults. It is then gently inserted into the meatus down to the diseased parts, when the carrier is withdrawn with a twisting motion, leaving the wool in the meatus.

It is now frequently advisable to urge the wool farther down, which may be done either with the blunt end of the carrier or by seizing it with Gruber's rectangular dressing forceps. The wool can be left in the meatus as long as desired, as its presence is usually well borne by the patient; but if we use a strong medicament, it is best to leave it but a short time. Mild astringents, however, can remain for ten or twelve hours if the discharge is not great. Where there is much discharge the wool should be removed as fast as it becomes saturated, and this can be done by the patient or his nurse as readily as the thorough instillation of medicines in solution.

The medicated wool can be advantageously used in some acute cases where the secretion is free. I have found the following formulae convenient:

Borax, 20 per cent.; sulph. zinc, 2 per cent.; sulph. zinc, 5 per cent.; tannin, 5 per cent.; salicylic acid, 5 per cent.; alum, 3 per cent.; alum, 5 per cent.; ferri subsul., 3 per cent.

The salicylic acid preparation has been found beneficial in purulent cases where there was an offensive odor.

In cases where polypoid granulations are a feature I use the ferri subsul.

Iodine, carbolic acid, and other remedies which are difficult to keep ready prepared, may be used by dipping plain wool into solutions of them at the time of using.

These preparations may now be had of Messrs. Caswell, Hazard & Co.

12 WEST 35TH STREET.

## Progress of Medical Science.

**INJECTION OF CARBOLIC ACID IN HÆMORRHOIDS.**—Prof. J. H. Pooley reports three cases of piles treated by the subcutaneous injection of carbolic acid. Five or six drops of the pure acid were used, and care was taken to carry it well into the substance of the tumor. The immediate effect was a severe but momentary pain, followed by a remarkable shrinking and hardening of the tumor. From this out there was absolutely no pain, the piles quickly sloughed, and the patients made rapid recoveries, all vestiges of the disease being removed in a week or ten days. In the first case but one injection was made, in each of the others four were required. The two last cases were acutely and intensely inflamed, but the only unpleasant effect was the odor of the slough. Prof. Pooley prefers the pure to the diluted acid, because it produces a more thorough coagulation of the blood and consolidation of the tissues, thus lessening the danger from detached pieces of coagulum, which was pointed out when this method was first introduced. Dr. Pooley has heard of a case in which the injection produced a severe spreading inflammation, and he ascribes it to one of two causes: "First, the too dilute and, therefore, irritating rather than coagulating and destructive character of the injection; and, second, the oblique insertion of the needle, thus conveying it into the areolar tissue outside of the pile, rather than into the tumor itself. Therefore, in addition to making use of the strong acid, I was very careful to insert the needle-point vertically to the surface, and to carry it well into the substance of the hemorrhoids." This treatment is recommended for partly internal and partly external piles, and for protruded and inflamed internal piles.—*Toledo Medical and Surgical Journal*, November, 1877.

**ICHTHYOSIS, OR PSORIASIS OF THE TONGUE.**—Although the connection between ichthyosis or psoriasis of the tongue, and cancer of that organ is now well established, it is useful to return to a question which has so practical a bearing upon surgical treatment. One of the most recent contributions to the subject is that of Nedopil, of Vienna, who, in an exhaustive review of what is known on the subject, adds several facts which are important, if not novel. He believes the ichthyotic condition (or, as he prefers to style it, psoriasis) to be the result of a chronic irritative process in the subepithelial layer of the lingual mucous membrane. Owing to this there is a greatly increased development of epithelial cells from indifferent cell-tissue, so that the layer of stratified epithelium increases greatly in thickness, an increase not owing to the proliferation of cells *in situ*. The transition to actual cancer-growth is easy; it requires only the growth of epithelial elements into the deeper layers of the mucous membrane, instead of upward towards the surface, to transform the simple into the malignant formation. This, in brief, is the sum and substance of this writer's views as to the pathogenic relations of lingual epithelioma and ichthyosis, based upon the examination of fifteen cases. As regards

\* The wool is medicated by saturating it with the proper solution of the medicine to be used. The wool, when dried, is ready for use.



the etiology, a long-continued use of any active irritant is said to favor the production of lingual or buccal psoriasis, such as highly-spiced foods, strong drinks, and, above all, tobacco, and tobacco-smoke, rather than the substance itself, for, as compared with the smoker, the chewer of tobacco is remarkably free from the complaint. Nedopil asserts, moreover, that cigarette-smoking is the most harmful of all methods of taking the baleful weed, and as tobacco-smoke contains such irritants as butyric, acetic, and phenic acids, as well as carbonate and acetate of ammonia, he thinks that the evidence of local irritation in cases of the tongue in smokers is as marked as that of cancer of the scrotum in chimney-sweeps. The male sex and advanced age are predisposing causes, and as to the duration of psoriasis lingue before the appearance of the cancer, this author agrees with others in assigning it as long a period as from fifteen to thirty years. As regards treatment, however, he points out that all internal and external remedies are powerless to cure or even to arrest the psoriasis when once developed, and that the abstention from tobacco-smoking, etc., is equally inefficient. The frequency with which the affection is followed by cancer is notorious, and he does not hesitate to advise the excision, at as early a date as possible, of the milky patches of psoriasis, where these are so circumscribed as to permit of such a procedure.—*The Lancet*, Sept. 1, 1877.

**ADAMS'S OPERATION IN ANCHYLOSIS OF THE HIP.**—This is the third of a series of cases in which Mr. Bryant performed Adams's operation for relief of anchylosis of the hip. The anchylosis resulted from disuse while suffering from necrosis of the tibia. The necrosed bone was removed Nov. 5, 1875, ten months after the accident that led to the disease. The femur was divided on the 23d of the same month. The following is from notes on the case taken by Mr. Poland:

"November 23.—Chloroform having been administered, a small incision, half an inch long, was made with a long tenotomy-knife above the great trochanter of the left side, through the soft parts down to the neck of the bone, and then with a saw the neck of the femur cut through, and the thigh straightened. The Sartorius muscle was divided at the anterior superior spine subcutaneously, and the small wounds covered with a pad of lint. A large outside splint, with foot and cross-piece, was applied, and a morphia injection given, which eased the pain, but he was a little sick after the operation." Both wounds did well. He complained of great pain in his back for a few days, but this soon wore off.

"February 10, 1876.—He was sent down to Bognor. There was still a little discharge from the right leg.

"When at Bognor the wound over the tibia completely closed. He could walk well, the parts about the hip having firmly consolidated."—*The Lancet*, November 17, 1877.

**EXCISION OF THE SPLEEN.**—Another case of splenotomy has been put upon record by Mr. H. L. Browne. After all the dangers had been thoroughly explained to the patient, the operation was performed on Feb. 23, 1877, in the West Bromwich Hospital. There were no adhesions, nor was there any distinct pedicle. Four large arteries were met with, which were secured by double ligatures before division, and also their veins. There was no hemorrhage. The lad rallied very well from the chloroform, but five hours afterwards died suddenly. There was no hemorrhage after the operation. The tumor, which was found to be a simple hypertrophy of the spleen, was eighteen and a half pounds in weight.

No theory of the cause of the disease is offered. The lad had leucocythemia. There were no other glandular affections. The youth of the patient (20 years), the almost certainty of a splenic tumor being non-malignant, the absence of other disease, and the fact that the patient was dying, and would have died in a few days from the pressure alone on the viscera and blood-vessels by the weight of the tumor—these are some of the strongest reasons why the operation was and should be performed.—*The Lancet*, Sept. 1, 1877.

**SYPHILOMA OF THE KIDNEY.**—An extremely rare lesion of the kidney, viz., syphiloma, was met with by Prof. Jäderhohn in two medico-legal post-mortems, and the preparations were placed in the hands of Prof. Key for examination. In the first case, that of a syphilitic prostitute who died suddenly, and whose body presented other characteristic specific changes, half the kidney was the seat of between 20 and 30 partly isolated nodules, firm, dry, grayish-white or reddish-gray, surrounded by a gelatinous, grayish-white zone, and sharply separated from the surrounding renal parenchyma. They appeared to be of recent occurrence, though the finer details could not be determined with certainty, as cadaveric changes had already occurred. The larger nodules presented, in general, a centre of cheesy degeneration. Microscopic examination showed the changes usual in syphiloma, as are seen in syphiloma of the liver, with which the nodules also corresponded macroscopically.

In the other case, that of a man 31 years of age, the syphilomatous nodules were quite numerous, and were mostly in the pyramids. (In the previous case the new formations were partly on the surface and partly in the cortex or pyramids.) They were not so firm and dry, but softer, undergoing solution, with a jelly- or mortar-like consistence. External to the syphiloma, the renal substance was undergoing sclerosis, with atrophy.

In connection with the above-mentioned preparations, Prof. Key showed the kidneys and heart taken, by Prof. Bruzelius, from the body of a sailor who died suddenly in the street. There was found complete atrophy of the lower portion of both kidneys, with a sharp line of separation from the remaining portion of the kidneys, which appeared macroscopically to be healthy. This atrophy is thought to be characteristic of syphilis, and the previous syphilomata were useful in elucidating the manner in which such atrophy occurs. The presence of syphilis in this case was also shown by the heart, which was hypertrophied, and its muscular structure replaced, in both halves, to a great extent by cicatricial, broad, ramified connective-tissue formations. In these connective-tissue formations, as well as elsewhere, small, grayish-white or grayish-yellow syphilomata occurred.—*Svenska Läkarsällsk. förhandl.* S. 35, 85. *Hygiea*, 1877; and *Nord. med. ark.*

**LACTIC ACID AS AN HYPNOTIC.**—Lactic acid, originally discovered by Scheele in fermented milk, is one of the products of the metamorphosis of tissue in muscle, and was suggested by Preyer as an hypnotic on theoretical grounds. Dr. Mendel has lately carried the theory into practice, giving from one to two drachms at a dose in the form of lemonade sweetened with sugar, and diluted, or in double those doses as an enema, neutralized with the same quantity of carbonate of soda, since in its pure state it acts as an irritant to the intestine. It is said to act best when the conditions preventing sleep are of a mental nature, whilst it is inoperative if the sleeplessness is occasioned by pain.—*The Lancet*, Dec. 8, 1877.

# THE MEDICAL RECORD:

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## INSANE ASYLUM BUILDING IN THE UNITED STATES.

Two striking pamphlets, by Dr. H. B. Wilbur, of Syracuse, N. Y.—the one a paper read before the Conference at Saratoga in September, 1876, on "Governmental Supervision of the Insane," and the other in the nature of a report on "Buildings for the Insane," read before the same Section of the American Social Science Association in September, 1877—form such a suggestive appendix to our recent discussion of "Insane Asylum Management in the State of New York," that no apology is needed for calling the attention of the medical profession to their remarkable disclosures; disclosures which charge insane asylum management in the United States with glaring extravagance of expenditure, as well as with incompetence in the strictly scientific aspects of medical superintendence.

From a tabular statement prepared by Dr. Wilbur, which can be readily corrected if he is in error, it appears that within the last twelve years, twenty insane asylums have been erected in this country, with an aggregate capacity of 9,875, at an aggregate cost of \$19,506,000. The table is worth copying, not only as a suggestive exhibit in brief of the finance of insanity, but as a preface to more specific examination of some of the objections to our present system of providing for this unfortunate class, urged by Dr. Wilbur. It is as follows: .

|                         |          |             |
|-------------------------|----------|-------------|
| Worcester, Mass.....    | 450..... | \$1,250,000 |
| Danvers, Mass.....      | 450..... | 1,600,000   |
| Middletown, Conn.....   | 450..... | 600,000     |
| Hudson River Hospital.. | 600..... | 2,000,000   |
| Buffalo, N. Y.....      | 500..... | 1,800,000   |
| Homœopathic, N. Y....   | 300..... | 900,000     |
| Morristown, N. J.....   | 800..... | 2,500,000   |
| Danville, Penn.....     | 500..... | 1,000,000   |
| Maryland.....           | 300..... | 803,000     |
| Kentucky.....           | 375..... | 162,000     |
| Ohio State Asylum.....  | 900..... | 1,800,000   |

|                         |          |              |
|-------------------------|----------|--------------|
| Athens, Ohio.....       | 690..... | 950,000      |
| Kalamazoo.....          | 580..... | 653,000      |
| Auer, Illinois.....     | 450..... | 534,000      |
| Oshkosh, Wisconsin..... | 500..... | 552,000      |
| Iowa State Asylum.....  | 300..... | 600,000      |
| Minnesota.....          | 500..... | 480,000      |
| Missouri.....           | 250..... | 209,000      |
| Nebraska.....           | 80.....  | 113,000      |
| California.....         | 900..... | 1,000,000    |
|                         | 9,875    | \$19,506,000 |

It is evident from this statement that, exclusive of furniture and other appliances, the first cost to the tax-payers of the United States, of providing shelter for the indigent insane, has, for the last twelve years, averaged about \$2,000 per capita, which, according to the most recent statistics, is considerably in excess of the amount invested in dwellings by the average householder. Indeed, if a family may be supposed to consist of five persons, the shelter of a single insane pauper costs more than six times the amount per capita necessary to provide that first element of a home for the earning and tax-paying classes of the community. This extraordinary disparity is mainly traceable to extreme extravagance in building in the older and longer established States. In Missouri, for example, the cost of building for the insane has been only about \$800 per capita; in California, about \$1,100; in Minnesota, \$960; in Wisconsin, \$1,100; but in Iowa, \$2,000. In this State, three asylums have been (or are being) erected, at an aggregate cost of \$4,700,000, with a capacity for 1,400 patients. This represents a per capita outlay of \$3,357. In New Jersey, 800 insane have been provided for at an outlay of \$3,125 per capita; and the two asylums at Worcester and Danvers, Mass., costing in the aggregate \$2,850,000, with a capacity of 900, tax that State \$3,166 for every indigent pauper admitted to their wards. As, according to Dr. Wilbur—and Dr. Ordronaux as well, by the way—the number of the insane relative to the general increase of population is constantly increasing, and as (which is more to the point) the number of the indigent insane has augmented of late years far beyond the natural increase of population, it is practically impossible that any State should provide shelter for this class at the extravagant rate which has so far prevailed. If, as Dr. Wilbur intimates, the American Association of Superintendents is answerable to the community for such a system of building, and proposes to provide for the insane, curable and incurable, in institutions of which these are the type, that Association has placed itself in a position to become discredited before the people the very moment that potent engine of public opinion, the newspaper press, takes occasion to give publicity to the facts and figures of the pamphlet. Nor can such an issue be long delayed. Already there is a popular murmur of dissatisfaction, led and directed by some of our ablest publicists and physicians,



which must, in the nature of things, soon be caught up and investigated by some clever journalist on the *qui vivit* for something of public moment. Fairly to estimate the stupendous extravagance implied in the preceding table, the medical reader has only to select any ten of the most expensive hotels in this country, and to assure himself of the fact that, while these luxurious resorts of the travelling public cost at a liberal calculation not more than \$1,500 per guest, our asylums for insane paupers cost more than twice that amount per patient.

Medical protests against such an extraordinary outlay have not, of course, been wanting; for the majority of medical men are not possessed of the expert's idea, that it is the paramount purpose of a State to build expensive asylums, with elegant and luxurious quarters for the medical staffs thereof. At a recent legislative investigation as to the expenditure of public money, in the case of one of these asylums, competent medical experts testified "that buildings at a cost of a thousand dollars a patient, with no expense for mere display, would still afford all that is essential or really desirable for the treatment of the insane, and that not a patient would be cured at one of these expensive hospitals that could not be cured at those built at the smaller cost named." Dr. Wilkins, in his capacity as Commissioner of the State of California, after examining all the leading insane hospitals in this country and Europe, speaks of our own Willard Asylum for Incurables, which was built at a cost of less than \$1,000 per patient, as almost an ideal lunatic hospital; and, after describing its magnificent situation, picturesque surroundings, and excellent arrangements, observes that he "failed to discover even the shadow of a reason why a person, becoming insane in the neighborhood of this beautiful asylum, should be sent to Utica because he was considered curable."

Such being the case—and that such is the case there is no good reason to doubt—Dr. Wilbur's observation, that about ten millions of dollars have been worse than wasted in the construction of lunatic asylums during the last twelve years, is justified both by facts and considerations of economical importance, and by science as applied to the recovery of insane patients. The extravagant outlay for the accommodation of a comparatively small number, in a ward, robs a still larger number of benefits that might be derived from intelligent treatment in a well-ordered hospital; necessitates their retention in town and country poor-houses, and thus defeats the humane intention of the liberal State appropriations that have been everywhere made of late years for the comfort and recovery of this unfortunate class. Dr. Ranney, the Superintendent of an Iowa asylum, reports 865 patients in two hospitals in that State intended for only 550, and adds that from three to four hundred of the insane of the State were still uncared for. Now, Iowa has recently finished a new insane hospital for 300, at a cost of

\$600,000 (\$2,000 per patient), but as the overcrowding of her two existing hospitals was 315, and as about 400 were in poor-houses, or badly supported by friends, fully 700 were on hand to be provided for. Another building to accommodate 500, and cost a million of dollars, is consequently in progress, and when this is completed, taking account of their inevitable increase in the meantime, the insane of the State will need another of the same capacity. Hence, as Dr. Ranney observes, this new outlay of a million will have the effect of similar heavy outlays elsewhere—to prevent adequate provision at a reasonable cost for the whole number of the indigent insane having claims upon the State. "It has long seemed to me," he adds, "very inconsistent to provide so expensively for one-half of the insane, and doom the other half, equally deserving, to poor-houses and such receptacles, or to severe struggles with want and privation in the hands of their friends." He concludes with this pertinent observation, which the American Association of Superintendents will find it to their advantage to consider carefully: "I have yet to see reason to believe that a hospital, costing \$2,000 per head, will be more conducive to the recovery of patients from insanity than one costing \$1,000, or even less." Dr. Andrew McFarland, another eminent Western alienist, describes a similar condition in Illinois, which, since 1851, has erected three State hospitals, at a cost of as many millions, and one very large county hospital, without apparently reducing the number of insane in the poor-houses of the State. "Is it a wonder," he asks, "that intelligent legislators want to know how long this is to continue, and inquire pretty minutely into the reasons for building so expensively?" Dr. Reynolds, of the Iowa State Asylum, at Independence, holds similar but more comprehensive language: "No State west of the Alleghanies has adequate hospital capacity for the insane; and until hospitals are built at a less cost per capita than \$1,000, it is useless to talk of providing for all the insane of a community." In Pennsylvania, with her Danville asylum, accommodating 500 inmates at a cost of \$1,000,000, "there are" (so says an eminent publicist) "now twice as many insane poor languishing in the dens and dungeons of the poor-houses and prisons as there were thirty years ago." In Philadelphia, for example, with her 1,200 pauper insane, accommodations exist for only 600, and a recent commission found 65 excited patients confined in a ward intended for only 19. A Connecticut commission finds 54 insane persons in the New Haven poor-house, some of them lying upon loose hay, clad in a few rags, covered with vermin, and in an indescribably filthy condition. The committee report that in their opinion the present lack of accommodation is due to the lavish expenditure of public money in providing for a part of the insane poor hitherto, and directly tax the superintendents of asylums with having promoted such extravagance. Mr. Sanborn, a Boston

publicist of note, reports that he found in a town poor-house in Essex County, within sight almost of the Danvers palace, Massachusetts, where \$116,000 was expended for grading and roads, and \$106,000 for drainage, water-supply, and sewerage, an insane woman, naked and helpless, in a wooden box filled with loose straw, and lacking all the comforts and decencies which our asylums are supposed to furnish. He adds that "hundreds of the insane poor of that State are now lying in town poor-houses and other unsuitable places, because officials insist upon spending millions upon a palace for a few patients, rather than build comfortable asylums for the many." An eminent Baltimore alienist finds that "there are now within the jails and poor-houses of Maryland over 500 insane and idiotic persons, for whom no proper provision exists, and who are utterly cast down and neglected, half-fed and ghastly in their squalor and filthiness." Dr. Conrad, of the Maryland Hospital for the Insane, whose pamphlet was quoted in our recent article on the Utica Asylum, traces the cause of this neglect of a large proportion of the pauper insane in the United States to the fact "that the present system of hospital management and support for this class of our pauper population is expensive beyond the ability of the several States to meet the demand." An illustration in point may be noticed in the significant memorandum that the water-supply for 500 patients at the Poughkeepsie asylum (Hudson River Hospital) has cost the State of New York \$150,000, according to Dr. Wilbur, while the whole expenditure for the adjacent city of 20,000 inhabitants, including the large distributing service, was only \$550,000. At Morristown, N. J., by the way, where \$2,500,000 has been expended for the accommodation of 800 lunatics, the Building Commissioners pacified the Legislature by inviting the members to dinner on two occasions, at a cost to the State of \$2,434.50, exclusive of railway fares.

Now, if the five millions in progress of expenditure for three new asylums in this State were really a resolution of the problem, how shall our indigent insane be provided for? criticism would seem ungracious, since the edifices are all of them nearly or fully completed. But such is not the case. From the latest accessible statistics, on the other hand, it appears that of the nearly 8,000 insane here at the end of last year, 482 were in private asylums, supported by friends; 844 in expensive State hospitals, at a weekly cost of nearly \$7.00 per week, two-thirds of them supported at public expense; 1,170 taken from county poor-houses, in the asylum for incurables, at a per capita weekly expense of \$3.00; 2,840 in asylums provided by the cities of New York and Brooklyn, at \$1.80 per week; 1,761 in county poor-houses and other incommensurable receptacles, at probably \$1.50 a week. As the city asylums of New York and Brooklyn are overcrowded to the extent of nearly or quite 1,000, the

three new institutions, with a capacity of 14,000, are inadequate to empty the two city asylums of their excess, and the county poor-houses of their ill-provided inmates, and when every ward of the new buildings is full, there will still remain about 1,500 of our indigent insane, for whom five millions more must be expended. Very evidently, therefore, our experts must look to some less expensive system of provision, or submit to be discredited before the public, and to accept the imputation of incompetent and reckless expenditure of the public money.

The outline of the facts that it has been our purpose to present on this occasion will, it is to be hoped, be taken as a kindly intimation on our part that such extravagance of expenditure tends to discredit the judgment and probity of the medical profession, and to justify the bitter secular criticism that must inevitably follow its general exposure. At another time occasion will be taken to discuss the probable effect of State Boards of Lunacy, such as are proposed by Dr. Wilbur. At present it is our preference to leave the issue in the hands of the eminent gentlemen who have raised it, trusting that this fair exhibit of the failure of their system will lead to such modifications as to transform an evident blunder into a source of benefit to the State and to the unfortunate class whose welfare it concerns.

#### CONTAMINATED WELL-WATER AND TYPHOID FEVER.

ONE of the encouraging features of secular journalism of late is the great interest taken in sanitary progress and in the causation of zymotic diseases; an interest which is comparatively recent here, but to which the great sanitary reforms of Great Britain have been indebted for the popular attention they have attracted. An instance in point occurs in the recent quotation by the *Times* of this city from the *St. Albans Messenger*, Vermont, of February 12, of the details of a number of cases of typhoid fever in an obscure Vermont village, traceable to contaminated well-water. The village, like most such, has its main street, its little hotel, and the usual inequalities of surface incident to an undulating landscape, the land descending to the east and the north. Two years ago a gutter was sunk on the lower side of the street, running between the roadway and a well, so near that the walls of the latter were laid bare by the excavation. This gutter receives the drainage from several houses on the upper side of the street, none of them having water-closets, however, and only two or three drains that penetrate as far as the sewer. During the thaw which occurred in the latter part of January, the water in this well became turbid, but cleared again in a day or two, and was apparently potable. Shortly afterwards the fever commenced its ravages, almost simultaneously, in all the fifteen families drawing their water-supply from that source. Up to the date



of February 12, the whole number of cases in these fifteen families had been twenty-eight, without the slightest vestige of the disease appearing elsewhere in the neighborhood. The disease was first reported as gastro-enteritis by Drs. O. F. Fassett and J. H. Hamilton, the medical attendants; but subsequent investigation described as a severe form of enteric fever, due solely, in the opinion of the two physicians, to the contamination of the well-water.

Of course, to physicians acquainted with the exact researches which have been carried out by Dr. Letheby and others, in England; by Pettenkofer and the State Board of Health, Mass., in this country, to ascertain the relation of contaminated well-water to enteric fever, there is nothing novel or even exceptional in the facts just recited. It has long since become a settled suspicion—a proximate certainty, indeed—that the typhoid fever prevalent in the towns, villages, and farm-houses of New England, is, in the majority of instances, the direct result of drinking contaminated water. In many cases the well is beneath the house, adjacent to the cellar, which usually contains more or less decaying vegetable matter; in many, it is within a few feet of the barn; in some, indeed, in the barn-yard itself; and in many more the sink-drain discharges within a few feet of it, and pools of stagnant house-waste are permitted to percolate into the surrounding soil. The researches of the State Board of Health, Mass., carefully prosecuted in 1872, with the assistance of local medical assistance, developed the astounding probability that more than half the wells in New England are so situated as to be subject to sewage contamination; and the subject is one that should be thoroughly discussed by the secular press before popular attention can be sufficiently directed to it. Our enterprising daily contemporary, for example, might have added vastly to the value of its item, by pointing out the fact that the case just narrated is typical of thousands that escape attention and exposure, simply because the medical attendant is careless and inefficient, or possibly because he has not kept himself *au courant* with the important series of researches that has distinguished the last ten years of sanitary science.

**MEDICAL AND SURGICAL HISTORY OF THE WAR.**—Dr. Irving C. Rosse, of Washington, D. C., one of the collaborators of the Medical and Surgical History of the War of the Rebellion, is probably better informed on medical bibliography than any other man in the United States. After several years of tedious labor, he has lately completed an index of the subjects of the Surgeon-General's library, which extends over a range of seventy thousand volumes and pamphlets. This index, a fasciculus of which appeared at the Centennial, will not only be the best of its kind when printed, but will prove an invaluable reference to physicians and others who may wish the fullest information regarding the literature of any subject in medicine.

## Reports of Societies.

### NEW YORK MEDICAL JOURNAL ASSOCIATION.

*Stated Meeting, February 1, 1878.*

DR. ROBERT F. WEIR, PRESIDENT, IN THE CHAIR.

#### EXCISION OF THE HIP-JOINT.

DR. C. FAYETTE TAYLOR read a paper upon the above subject, and stated that he had not seen the advantages to be gained by the operative procedure. He was ready to perform the operation as soon as he became convinced that it was the proper thing to do, but his hesitation in resorting to excision was based upon the fact that he had seen cases far advanced in the disease recover, under conservative treatment, with useful limbs, but with more or less deformity, and others progress to complete recovery. He did not contend that excision was a procedure never justifiable, but that performing the operation as frequently as it was done by some surgeons, was a procedure, the propriety of which was very questionable.

It had been claimed by those who performed the operation with great frequency: 1, that excision cut short the disease and increased the chances of life; and 2, that the patient might, by the operation, hope for a better limb than if the case was left to nature. Both of those reasons were to be regarded as mere assumptions until the results obtained by operative procedure, and those obtained by conservative treatment, were compared with each other in similar cases. But that had not been shown, nor had an effort ever been made in that direction; and until such comparison was made, the statistics given were simply interesting and instructive, but not conclusive with reference to the real merits of the two methods of treatment.

From an analysis of Culbertson's statistics on 472 cases, and a comparison of the result obtained by conservative treatment with those obtained by operative procedure—and also from the results in cases which he had the opportunity to examine, Dr. Taylor reached the conclusion that he had either been permitted to see only unfavorable cases, or else the result obtained by the operation had been less favorable than when the limb had been left in nature's care. Of the 472 cases only 17 per cent. had been observed for more than one year after the operation; a period of time altogether too short to determine ultimate results.

The question was not, whether excision was ever justifiable, nor whether it was not sometimes followed by good results; that was admitted, but the question was, substantially, could excision be depended upon; could any determinate results be expected by its performance?

In answering the questions, the fact must be taken into consideration that the ultimate results of the operation were not well known; hence the opinion of very many prominent surgeons, that the operation at the present time was in a very unsettled condition.

It had been claimed that if the excision did not save life, that it saved the patient from a protracted period of suffering. Dr. Taylor cited cases, however, to show that excision could not be relied upon to cut short the disease. The first, was one presented to the New York Pathological Society by Dr. Erskine Mason, and published in the Society Reports in THE MEDICAL RECORD for December 15, 1877.

The second case was one in which the operation had been performed late in the disease, with unfavorable ultimate results. It might be objected to as an illustrative case, because of the late performance of the operation. The sinuses in this case closed at the end of two years; opened again six years later, and suppurred two years longer.

The third case, however, was one in which the operation was performed before suppuration was established. The incision after suppurating about two years, closed to break open again at the end of another year, and finally closed permanently at the end of four years after the operation. It was only at the end of twelve years, however, that the patient was able to walk. The question arose, how frequently did such cases occur? For it was believed that they were not isolated cases.

Reference was made to the fifty-eighth case in a late work upon Orthopædic Surgery, which was reported as sinuses closed, and that the patient was going about by the aid of a wheel-crutch. In January, 1878, Dr. Taylor had seen the same patient in Bellevue Hospital, where she was in a most deplorable condition, and exhibiting all the appearances of a patient suffering from prolonged joint-disease, and with the wound open.

Reference was also made to the case of Robert Anderson, reported in the same work, who was operated upon in 1862 by the removal of a V-shaped portion of the upper portion of the femur, for the purpose of making an artificial joint and overcoming the distortion due to ankylosis at the hip.

The case was reported as one of recovery, with the formation of an artificial joint at the place of section. A member of Mr. Anderson's family had informed Dr. Taylor that Mr. Anderson, at the present time, could neither sit nor ride, and that his condition in that respect had not been improved by the operation. For, one year after its performance, acute inflammation and suppuration supervened which terminated in union at the point of section.

Fourteen years after, however, the case was held up as one illustrating the triumph of a new principle in surgery, and one in which a real cure had been accomplished by its application. The report of the case was regarded as one having an important bearing upon the performance of excision at the hip-joint, inasmuch as it illustrated the liability of excised bone to take on inflammatory action subsequent to apparently complete reparation, and mention was made of it for the purpose of affording an opportunity for explanation.

Dr. Taylor stated that it was simply in the interests of science that he mentioned the case. In conclusion, he referred to an opinion given by Dr. Timothy Holmes in the *Medical Times and Gazette* for November 3, 1877—namely—that "excision does not afford better results than natural cure."

The paper being before the Association for discussion:

Dr. V. P. GIBNEY gave an analysis of 80 cases of hip-joint disease which had been under observation at the Hospital for the Ruptured and Crippled. These cases had been subjected to the internal treatment, counter-irritation, etc., measures adopted in the institution, but had not had any treatment by way of operation or mechanical appliances. In that sense, he spoke of them as nature's cures.

In these cases the term "cure" could be safely predicated.

Of the 80 cases cured, 28 were males and 52 females.

#### AGE OF PATIENTS WHEN A CURE WAS FULLY ESTABLISHED.

Cure was established in

|    |                        |
|----|------------------------|
| 1  | before 5 years of age. |
| 2  | " 6 " "                |
| 10 | " 7 " "                |
| 13 | " 8 " "                |
| 20 | " 9 " "                |
| 29 | " 10 " "               |
| 47 | " 12 " "               |
| 71 | " 15 " "               |

In 3 cases the patients were 16 years; in 2 cases, 17 years; in 3 cases, 18 years; and in 7 cases, 19 years of age, before cure was established.

#### DURATION OF THE DISEASE.

In 33 cases the disease ran its course in 3 years.

In 28 cases, the duration varied from 3 to 6 years.

In 16 cases, it varied between 6 and 10 years.

In 1 case, it ran its course in 15 years.

#### GENERAL CONDITION OF THE PATIENTS DURING THE COURSE OF THE DISEASE.

Two terms were used: "good" and "fair."

By the term fair was meant that there was a slight degree of anemia present, but not sufficient to militate against recovery.

Of the 80 patients, 69 were in good condition, and 11 in fair condition.

#### KIND OF RECOVERY WITH SPECIAL REFERENCE TO LOCOMOTION.

In this connection three terms were employed: "well," "fair," and "badly." By the term "well" was meant that the patient could walk and run without discomfort, although there might be a marked limp. Of this class there were 61.

By the term "fair," was meant that the patient could walk short distances without any assistance; but that in walking long distances, the aid of a stick, and sometimes a crutch, was required. Of this class there were 12.

By the term "badly," was meant that the patients were unable to walk well without the aid of a high shoe, a crutch, etc. Of this class there were 7.

#### DEGREE OF DEFORMITY.

In 2 cases ankylosis took place, with the limb at an angle of 90° with the body. In 3 cases recovery took place with the limb flexed at an angle of 110°; in 3, at an angle of 120°; in 19, at an angle of 135°, which militated but little against good locomotion; in 19, at an angle of 145°; in 18, at an angle of 150°; in 11 cases, at an angle between 160° and 170°; and in 4 cases no estimate was made.

#### AMOUNT OF SHORTENING.

In 1 case there was no shortening. When it first came under observation, it was a typical case of acute synovitis of the hip-joint.

In 2 cases there was  $\frac{1}{2}$  inch shortening.

" 24 " " " 1 " "

" 17 " " "  $1\frac{1}{2}$  inches shortening.

" 19 " " " 2 " "

" 7 " " "  $2\frac{1}{2}$  " "

" 7 " " " 3 " "

" 2 " " " 4 " "

Five of the 7 with 3 inches shortening, and the 2 with 4 inches shortening, were never under treatment at the hospital, but applied for high shoes, and the observations were made.



## OCCURRENCE OF ABSCESS.

In 48 cases abscesses had existed.

In 31 cases there was no abscess during the entire course of the disease.

## RATIO OF MORTALITY.

The ratio of mortality in 288 cases of hip-joint disease was  $4\frac{1}{2}$  per cent. from exhaustion;  $4\frac{1}{2}$  per cent. from amyloid degeneration;  $1\frac{3}{4}$  per cent. from tubercular meningitis; and  $1\frac{3}{4}$  per cent. from other diseases. See Strumous Element in the Etiology of Joint-Diseases, *New York Medical Journal*, July and August, 1877, Table XI.

## RECOVERY WITH MOTION AT THE JOINTS.

Out of the 80 cases, there was unmistakable motion over an arc, varying from  $15^\circ$  to  $90^\circ$ , in 12 cases.

DR. LEWIS A. SAYRE remarked that he had never taught that exsection cut the disease short, as might be inferred from what had been said, but he held that the hip-joint disease should be treated as conservatively as possible. If, however, there was progressive caries, notwithstanding such conservative treatment, he held that the surgeon should resort to operative procedure. For, if dead bone was present, it must be removed before the disease could be arrested. If the disease could be arrested in the inflammatory stage by appropriate treatment—that is, before the bone became necrotic—it was the duty of the surgeon to resort to every known means to accomplish that purpose. Dr. Sayre contended that, in a majority of cases, by appropriate treatment and the use of proper mechanical appliances, the progress of the disease could be arrested, and recovery with perfect motion obtained; thereby giving much better results than had been obtained in the cases reported by Dr. Gibney, in the majority of which there was loss of motion and the existence of more or less deformity. He thought Dr. Taylor would coincide with him in that opinion. With regard to exsection, it was not to be performed, except as a *dernier ressort*. It was not to be used as a means to cut the disease short, but was a justifiable method to be employed for arresting the progress of the disease when dead bone was present. So long as dead bone was present, it was a foreign body, was a source of constant irritation, and the case could not be cured while it remained. Unless, therefore, the disintegration and exfoliation of the bone was rapid, and it could readily pass out through free sinuses, it was the duty of the surgeon to cut down and remove it, the same as he would remove dead bone from any other part of the body. If, by making a free incision through the soft parts, perhaps enlarging the opening in the involucrum, the dead bone could be readily removed or rapidly discharged, very well; it might be that, by such procedure, an exsection could be obviated. But when there was imprisoned dead bone, which was a source of irritation, kept up the inflammation, and made the disease *progressive*, it had seemed to him justifiable to make an exsection, and thus in a few minutes rid the patient of a piece of dead bone which, if left to nature, could at best be removed only after the lapse of a long period of time. In a majority of such cases, the operative procedure gave the patient a fair chance for a rapid recovery.

## ULTIMATE RESULTS.

With reference to the condition of the cases years after the operation, he could only say that sufficient time had not yet elapsed to enable any one to arrive

at definite conclusions. The best that he was able to do at present was to give the condition of the patient at the time a report was made. There were several cases in which sufficient time had passed without recurrence of the disease to enable him to say with great confidence that the recovery was complete. The first patient upon whom he operated had now survived the operation over twenty years; was married, and no one would suspect from her walk that she had been the victim of hip-joint disease. It was believed that her case might be reported as one in which complete cure had been effected. There were several other cases in which the cure had been equally satisfactory. It was to be remembered that the patients upon whom he had operated had nearly all been *in extremis*; that the operation had been consented to, simply because there seemed to be no other channel through which benefit for the patient could be obtained.

Dr. Sayre then related the history of several cases, and also exhibited a patient formerly under treatment at the Hospital for Ruptured and Crippled, in which there was enlargement of the liver, waxy casts in the urine, and a whole retinue of equally unfavorable symptoms, but in which recovery took place to such an extent as to permit the patient to walk about with comfort and with motion in the joint. In some of the cases the sinuses and the wound made by the operation had entirely closed. Such cases, it was believed, proved the justifiableness of the operation, for all the patients would have soon died had it not been performed.

A specimen was exhibited in which could be seen a piece of dead bone imprisoned by a new growth of bony material, thus rendering it impossible for the old bone to escape. Had it been permitted to remain, the disease would have been prolonged for years; but by its removal the patient had been restored to health; apparently at least, as no one could yet tell what might be the result of the case in years to come.

Reference was made to several cases in which like results had been secured.

With reference to the case in Bellevue Hospital to which Dr. Taylor had alluded, Dr. Sayre remarked that he performed the operation of exsection upon the child, and when the case was reported in his book, she was able to be up and to walk by the assistance of a wheel crutch. About that time his services at the hospital ceased, and he saw nothing more of the case until he was reappointed visiting surgeon, two years after, when he found the child still in the wards, and in a bad condition. Her present condition was about the same as one year ago, and how long she might live it was difficult to say.

With reference to the case of Robert Anderson, to which Dr. Taylor had alluded, it was not a case of exsection of the hip-joint at all, but a section through healthy bone; a much more dangerous and serious operation. Exsection of the hip-joint was really a simple operation; but an operation performed for the relief of distortion of a limb dependent upon ankylosis of the hip-joint was an entirely different thing. The statement made in the published report was exact with reference to Anderson's condition when last heard from, which was in 1869 by letter requesting the doctor to forward to him a hand velocipede. [The original letter was read.] At that date he stated in his letter that his "health was good."

Dr. Sayre asked Dr. Gibney how many of the  $4\frac{1}{2}$  per cent. of fatal cases he had reported would have been saved had exsection been performed? Almost every case he had operated upon had been given up to die, yet, of eight cases which had been discharged

from the Hospital for Ruptured and Crippled, as incurable, seven had made good recovery.

Dr. GIBNEY thought it was impossible to answer the question correctly.

Dr. WEIR asked for statistics relating to three questions: 1. What was the ratio of mortality in cases not treated, and in which there were numerous sinuses, suppuration, etc.? 2. What was the ratio of mortality in cases treated by means of mechanical appliances, etc., without the operation? And 3. What was the ratio of mortality after excision?

Dr. L. M. YALE gave a partial answer to the questions of the President. Statistics on the points asked for were exceedingly slender. In addition to those just given by Dr. Gibney, were those of Billroth, gathered from the Zurich clinic, and those of Hueter, from the Greifswald clinic. Billroth, who followed the history of his cases after they left his immediate observation, gave 20 deaths in 64 cases, or 31½ per cent. mortality. Hueter, not following up the cases, 23 deaths to 86 cases, or 26½ per cent. Together, 43 deaths in 150 cases, or 28½ per cent. That might seem an excessive mortality, but if it was remembered that deaths from phthisis, exhaustion, miliary tuberculosis, meningitis, etc., occurring while the hip disease was in existence, were generally all included; and if farther it was borne in mind that our impressions of mortality were likely to be formed from cases brought early under the best surgical care, and treated with the best modern appliances, while probably the cases coming under such treatment early, even in New York, were a minority, Dr. Yale was inclined to think that the statistics quoted were not so far astray.

Another point, regarding which statistics seemed to be altogether lacking, was the relative number of cases of hip disease that passed to suppuration at all. It had been estimated that as many as 50 per cent. suppurated. Now since, with the exception of occasional tubercular disease, the deaths from hip disease occurred in the suppurative stage, the fatality per centum of that stage would be relatively higher; that is to say, about 57 per cent. of suppurating cases ultimately died unhealed. How far this was an accurate estimate, Dr. Yale could not say, but it was based upon the only available material, and it would be interesting perhaps to see how the results thus obtained compared with those obtained by excision. He had assisted at the operation about forty times, and many of the cases had remained under his care for a considerable time. In addition, he had seen a number of cases at a later period in their history. Of all these cases he knew personally of their ultimate or present condition in but twelve, in addition to the case just shown by Dr. Sayre. Many more were doing well when he last had seen them, but had not then reached a definite result. He therefore spoke only of such as he had seen and knew of with certainty. Of the thirteen cases six were dead, three having died within three months, three between one year and two and a half years after the operation. Six were cured, and by cured was meant that there was no discharge, and that all sinuses were definitely healed. They were all cures with free motion, all quite as free as the case present, and in several the motions were quite of the normal degree. Of the six cured, five were Dr. Sayre's cases, and the sixth was operated upon by Dr. A. W. Stein. This last case had absolutely a complete motion of the hip-joint as upon the sound side, the examination having been made upon a table, to avoid mistake, and verified by Dr. Gibney. There was in this case 2½ in. shortening, one inch of which only was in the femur, the remainder in the leg. The thirteenth case had just

been heard from by letter, and reported a very slight motion, and a sinus still open near the anterior superior spinous process of the ilium; but his general condition was much better than before the operation, 2½ years ago. These few cases give: cured, 46 per cent.; deaths, 46 per cent.; doubtful, 8 per cent. Counting the doubtful case as death, gave 54 per cent. death, or rather less than the estimate of death among all suppurating cases. These cases, it should be borne in mind, were of the worst character, many of them having resisted treatment by mechanical means in the best hands for a long time.

In his experience, then, mortality was not increased by the operation. He had never seen a recovery with a useless limb. His belief was that cases, if cured, were cured more speedily, and in much better condition than if left alone; and if not cured, could scarcely be said to be in worse condition. Until he saw reason to change his belief, he should feel it his duty to advocate the operation on the same surgical grounds, and under the same restrictions as he would a like operation elsewhere, knowing no reason why the hip-joint should in any sense be made an exception to general surgical rules. Farther, in certain very bad cases, where the suffering and the constitutional disturbance were very great, he would feel bound to propose the operation, even with the certainty of its failure, on the ground that it would, by diminishing these symptoms, render life more tolerable, and probably prolong it.

Dr. SAYRE thought that Dr. Yale should have embraced the results in the total 40 cases, in order to make his statistics of any value; for, as the question remained, the result in 28 cases was not mentioned. One of the twenty-eight cases not referred to, had first been exhibited, and showed a good result for the operation.

Dr. C. T. POORE remarked, that a table of ultimate results, both after excision of the hip-joint and after mechanical treatment in any great number of cases, sufficient for scientific statistical purposes, did not exist. Between those who were strong advocates of mechanical treatment carried to its utmost limit, and those who advocated excision in a certain class of cases, or when the disease has reached a certain stage, there seemed to be an almost irreconcilable difference of opinion—and until we had reliable statistics from both sides we must remain in doubt.

There were some cases of hip disease that recovered without any treatment; others recovered after rest or mechanical support; others recovered only after excision; while some progressed from bad to worse, no matter what plan of treatment was adopted.

The usual mode of reporting cases, both of excision and after mechanical treatment, made them of no value. He would throw out all cases of reported cure, unless the condition of the limb was explicitly stated; if an excision had been performed, the statement of a physician should be included as to the amount of shortening, and whether there existed any sinus or not. The ability to walk without support should not be regarded as proof of a cure. For, he had seen patients go about without pain, and without any support, when the femur was extensively diseased, and who ultimately died from a continuance of suppuration.

During the past few years he had excised twelve hip-joints. Two of these were thrown out; one done this week, the other still under treatment, although he thought that a good result would be obtained. Of the ten cases, five died: two from amyloid degeneration of the liver, etc.; one from meningitis; one from phthisis, and it was supposed that one died from heart-clot.



The death from meningitis, and that from phthisis, Dr. Poore thought should not be reckoned as deaths from hip disease.

Of the five remaining, one was *cured*.

In one case, at the time of the operation, there was albumen in the urine, no casts could be found, and there was enlargement of the liver. The femur was extensively diseased, and was divided about  $1\frac{1}{2}$  inches below the trochanter minor. The patient had been examined very recently, and his general health was good. All sinuses were closed, except one, through which exposed bone could be detected on the ilium. He could flex, rotate, and extend the thigh on the pelvis with considerable freedom, but he was unable to raise his foot from the bed; he could bear his whole weight on the limb, which was  $3\frac{1}{2}$  inches shortened. He had no albumen in his urine after the operation, and when the examination was made only very slight enlargement of the liver could be detected. That was not a very flattering record, but it was to be added that all his cases gave a bad family history. Four of the cases had developed extensive abscesses before coming under operation, and four after. In six cases the shaft was diseased below the point of section, and in some a lower division of the bone failed to find healthy tissue. In four cases the bone was healthy below the point of section.

It seemed to Dr. Poore that a hereditary diathesis had much to do with the result, if not the cause of joint-disease. The fact that excision in some, if not most of his cases, has not given good results, was not an argument against the operation, as the cases did not come under his care until all chance for cure by mechanical means had long since passed. When should mechanical treatment give place to operative procedure? was a question that each surgeon had to decide for himself. Dr. Poore thought that it was not the duration of the disease, but the pathological changes in the joint, that should form the basis of our decision. Dead or carious bone in a joint should be treated in the same way as diseased bone elsewhere. If, after careful examination under ether, he was satisfied that the joint was disorganized, that the cartilage had been destroyed, he thought that the question of excision should be seriously considered; and if the patient belonged to a family whose history was bad, he should consider it an additional argument in favor of that operation. He had never excised a joint when, in his own opinion, or in the opinion of those gentlemen present, a cure by rest and mechanical treatment was probable. There was nothing peculiar in hip-joint disease; the same general rules of surgery applied to that joint as to any other—and, perhaps, with more force, when we considered the structure of the joint. Dr. Poore very much regretted that those gentlemen who were so ardent advocates of mechanical treatment, and who held views different from some others, had not given statistics of hip disease treated in the third stage, and the results in a way that would be of some scientific value; for, until they did, all discussion on the subject was useless.

That disease might again be lighted up in the end of the femur, or in the acetabulum after a successful excision, was not improbable. He had, however, never seen or heard authentically of such a case, and doubted very much whether a return of disease after excision was as common as after spontaneous cure, or one after mechanical treatment. He was as strong an advocate of the mechanical treatment of joint-disease as any one, but he did not believe in holding out hopes of cure in cases where the joint was disorgan-

ized, and when abscess had been formed with burrowing of pus under the muscles. Dr. Poore believed that more lives would be saved with a useful limb by not trusting too long to mechanical treatment. There was almost no dangers from the operation itself, and the relief to the patient had in all his cases been very marked.

DR. WEIR remarked, that while in the service at St. Luke's Hospital, the operation of excision of the hip-joint was forbidden in that institution. Consequently, in many cases he had made an incision as if for excision, removed the dead bone as far as possible, perhaps made an opening through the involucrum for that purpose, and those cases did very well. The discharge diminished, and the general condition of the patient was improved. In proper cases he favored complete excision.

DR. SAYRE remarked, that such operative procedure was what he had called partial excision, and in certain cases was an operation that might with perfect propriety be first resorted to. If, subsequent to such an operation, the caries was progressive, excision should be resorted to, and it was then not only a justifiable operation, but it was the duty of the surgeon to perform it. The partial operation he had performed many times, and in some cases with very satisfactory results.

The Association then adjourned.

## NEW YORK THERAPEUTICAL SOCIETY.

*Stated Meeting, February 8, 1878.*

DR. JAMES R. LEAMING, PRESIDENT, IN THE CHAIR.

### REPORT OF COMMITTEE ON NEUROTICS.

I.—*Results of the Use of Chloride of Potassium in Epilepsy.*

II.—*Preliminary Report on the Use of a Mixture of Bromides and Chloral in Epilepsy.*

DR. E. C. SEGUIN, Chairman of the Committee, made the report, of which the following is a brief summary. The experiments in the first instance were made by noting the number of epileptic attacks occurring in a certain number of patients during a certain period of time.

*First.*—Noting the number of attacks which occurred in a certain number of patients while receiving a placebo treatment, during a certain period of time, and also the number of attacks occurring in the same patients while under the bromine treatment for a corresponding length of time.

*Second.*—Noting the number of attacks occurring while under the chloride of potassium treatment, and comparing it with the number of attacks occurring in the same patients during treatment by bromides for a corresponding length of time.

The following were among the conclusions reached:

I.—That bromide of potassium had a positive restraining influence over epilepsy, both in reducing the number and the severity of the epileptic attacks.

II.—That chloride of potassium was almost inert as an agent in the treatment of epilepsy.

It was inferred that the potassium could not be the efficient element in controlling the epileptic attacks, because the chloride of potassium contained more potassium than did the bromide of potassium.

PRELIMINARY REPORT ON THE COMBINED USE OF  
BROMIDES AND CHLORAL IN EPILEPSY.

The formula employed by Dr. Seguin and two of his clinical assistants was as follows:

|    |                       |      |
|----|-----------------------|------|
| R. | Potas. bromid. ....   | i.   |
|    | Chloral hydrate. .... | ss.  |
| M. | Aqua. ....            | vii. |

Of that mixture from four to six teaspoonfuls were administered daily.

The observations were made by Dr. A. McLane Hamilton, of New York; Dr. J. C. Shaw, of Brooklyn; Dr. E. C. Seguin and two of his clinical assistants, Drs. T. A. McBride and N. B. Emerson. The combination of chloral with bromide of potassium had been used in twenty-eight cases, and it was shown that the epileptic attacks were warded off by the new solution quite as well as by the bromides alone (bromide of ammonium in the same quantity being used instead of the chloral hydrate). The reflex irritability of the throat was reduced equally as well as by the use of the bromides alone.

In all the cases there was a remarkable immunity from the bad effects of the bromides, especially in the psychic sphere, and little or no acne had been produced. In no case was more than forty-five grains of each drug given daily, and really no bad results had been realized under the new treatment.

It had been hoped that the admixture of the chloral with the bromide would diminish the evil results produced by the bromide, such as general depression of the system, irritation of the skin, etc., and those advantages had been partially, if not fully, realized. The good results obtained had encouraged the committee to make more extensive trial of the new mixture.

Dr. W. H. THOMSON thought it quite probable that the apparent good effect obtained by the use of chloral as indicated would prove but temporary.

He always used phosphorus and cod-liver oil with the bromides in the treatment of epilepsy; relying upon the phosphorus to prevent the bromic acne.

Dr. E. R. SEGWIN remarked that he had not yet found any one who had seen an attack of *grand mal* occur when the patient, at the time of its occurrence, was suffering from bromism. The history of four cases of epilepsy was referred to, which had been treated by the use of bromide of potassium alone. The manner of administration had been to give the drug in gradually increasing doses until the attacks were arrested. Little or nothing had been seen of the bad effects produced by the bromides. Intermissions in the use of the bromide had been given the patient, varying in length from two to ten days, and to these a good deal of the absence of the bad effects of the remedy was attributed.

Dr. F. A. CASTLE remarked that he had employed chloral and bromide of potassium in combination in the treatment of other conditions than the epileptic, and had found that a less quantity was required than would have been necessary had either drug been used alone.

Dr. E. C. SEGUIN remarked that his experience was against the omission of the bromide for even a single dose in the treatment of epilepsy.

Dr. THOMSON endorsed Dr. Seguin's experience in that particular. He also referred to impressions on the surface nerves as a means for diminishing the quantity of bromide required to control the epileptic

attacks. It was his habit, therefore, to produce surface irritation on epileptic patients by the use of a drachm of red pepper to a pint or quart of water, and applying it with a sponge.

Dr. H. T. HARKS remarked that although the effect of the chloral combined with the bromides in the treatment of epilepsy might be merely palliative, yet in that way it assisted nature in affecting a cure of the disease, or gave other remedies an opportunity to operate.

Dr. SEGWIN referred to the use of nitrite of amyl for the same purpose. It was a remedy which produced effects much more evanescent than those produced by chloral, yet it had been successfully used for preventing the occurrence of epileptic attacks. Although not directly curative, it had proved in many cases a valuable adjuvant in the treatment of the disease, because it obviated the retarding influence produced by a convulsion.

Dr. H. G. PIFFARD exhibited a proposed

#### NEW DOVER'S POWDER,

made by substituting sugar of milk for sulphate of potash in the old formula. He also exhibited *pilocarpin*, put up in a convenient form for preservation by triturating the alkaloid with one hundred parts of sugar of milk.

A specimen of Calcutta flaxseed was also exhibited, which had been suggested as a substitute for cod-liver oil.

Dr. E. C. SEGUIN objected to the use of the term "trituration," because of its immediate association with a fraudulent school in medicine.

After a brief discussion upon this point, the Society adjourned.

## Correspondence.

### LIBERALISM IN HOMOEOPATHY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—As the one who offered the first resolution, a modified form of which has recently been adopted by the Homoeopathic Societies of the County and State of New York, I beg to say a few words suggested by your editorial in THE MEDICAL RECORD of Feb. 16th.

The resolution does not indicate, and was not intended to imply, that those sustaining it had changed either belief or practice; it was not offered, hat in hand, to any school or faction; its sole purpose was to correct an error which, to a greater or less extent, prevailed both within and outside the profession—that is, the erroneous impression that we practically excluded everything in medicine outside the segment of homoeopathy.

This supposition is entirely at variance with fact; indeed, we claim to be the medical practitioners in the broadest acceptance of the term, inasmuch as we have never declined to avail ourselves of any source of knowledge or practical experience—homoeopathy included.

There are those, opposed to our resolution, and who do believe in and who endeavor to practise exclusive homoeopathy, but they are exceedingly few in number.

By homoeopathy is meant a principle upon which remedies are selected. The question of the amount of the remedy used is a matter of personal experience, and the mode of its preparation purely a question of pharmacy; it has necessarily no more connection with homoeopathy than has the silver bill.



The intent of the resolution was to formulate our platform, and to say that it should be vast enough to include for examination every pertinent fact and theory in the universe; that every member of our body should possess absolute freedom to believe or disbelieve, according to his sincere convictions, and that he should be master of his own professional administration; that he shall not be bound to one moment's perpetuity of belief, changing with each hour, if he so wills, in compliance with new facts and the progressive evolution of science.

E. P. FOWLER, M.D.

38 W. 40TH STREET.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 17 to February 23, 1878.*

WATERS, W. E., Captain and Assistant Surgeon. In addition to his present duties, to examine recruits and attend the artillery command in camp near this city (San Antonio). S. O. 33, Dept. of Texas, February 12, 1878.

WINNE, C. K., First Lieutenant and Asst. Surgeon. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave the Department and apply for one month's extension. S. O. 14, Dept. of the Platte, February 13, 1878.

TURRILL, H. S., First Lieutenant and Asst. Surgeon. To accompany recruits from San Antonio to Fort Clark, Tex., and on arrival report to the Post Commander for duty. S. O. 31, Dept. of Texas, February 9, 1878.

BARNETT, R., First Lieutenant and Asst. Surgeon. Relieved from temporary duty at Little Rock Barracks, Arkansas, to proceed to Lake Charles, Calcasieu Parish, La., and resume his duties as Post Surgeon. S. O. 22, Dept. of the Gulf, February 12, 1878.

## Medical Items and News.

### CONTAGIOUS DISEASES — WEEKLY STATEMENT.

Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 23, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Feb. 16, 1878.... | 0             | 4              | 86             | 4                          | 171      | 84          | 0          |
| Feb. 23, 1878.... | 0             | 7              | 75             | 5                          | 130      | 61          | 0          |

THE NORTH-CAROLINA MEDICAL JOURNAL.—This journal is a revival of the *Medical Journal of North Carolina*, which ceased in 1862. In certain respects it is an old friend in a new dress, and is welcomed accordingly. It contains original articles, selected papers, correspondence, editorial articles, reviews, and news; is published at Wilmington, Ohio, and is under the editorial charge of Dr. M. J. De Rosset (formerly of Baltimore, and now of this city) and Dr. Thomas F. Wood, of Wilmington, N. C. This number is well presented, and if it is a specimen of what is to follow, we have no doubt that the journal will be well received by the medical profession of the State.

ALUMNI DINNER OF MEDICAL DEPARTMENT OF UNIVERSITY OF NEW YORK.—The seventh annual dinner of the Alumni Association of the Medical Department of the University of the City of New York took place on the evening of February 22d, at Delmonico's. The annual business meeting preceded the banquet, and resulted in the choice of the following ticket of officers for 1878:

President, James H. Anderson; Vice-Presidents, William A. Hammond, John R. Dickson, Josiah Gautier, S. Fleet Speir, J. J. Peterson, Thomas S. Bahan; Secretary, for three years, Frederick R. S. Drake; Treasurer, C. Dixon Varley; Executive Committee, D. B. St. John Roosa, Stephen J. Clark, F. Le Roy Satterlee, A. E. MacDonald, Edward L. Pardee, Andrew Otterson, R. A. Witthaus, W. C. Lutkins, L. Goldschmidt, Newton M. Shaffer, M. J. Moses, J. H. Hobart Burge.

Dr. James H. Anderson, the President of the Association, presided, and had on either side of him Mayor Ely, Chancellor Crosby, Rev. Dr. John Hall, Rev. Stephen H. Tyng, Jr., Mr. John Taylor Johnson, Mr. Joseph H. Choate, Mr. Chauncey M. Depew, Commissioner of Charities Townsend Cox, and ex-Commissioner Isaac H. Bailey. Dr. Anderson announced the toasts, and called upon Mayor Ely to speak for the City of New York. His Honor made some remarks, and was followed by Chancellor Crosby. The toast to the Council of the University was responded to by Prof. D. B. St. John Roosa, M.D., who urged that the University should receive aid so as to become a real university, in which all branches of knowledge should be taught. He denounced the manner in which it is neglected, and urged that New York and New Yorkers should not assist in building up a university in Massachusetts, when one ought to exist in this city, where there is good foundation for it. In conclusion, Prof. Roosa declared that the policy of founding small detached colleges for the purpose of teaching special branches was wrong, and claimed that such institutions should be embraced in the University of the City of New York.

Rev. Stephen H. Tyng, Jr., made a long and very earnest address, claiming that the medical and clerical professions were kindred, had been conjoined in the earliest age, and should always assist one another. He insisted that the clergyman, by calming the mind of a patient, helped the doctor to make a cure, and admitting that physicians often become the custodians of secrets such as would be kept from the preacher, he urged that they should never forget that theirs are sacred obligations. The Bar was responded to by Hon. Joseph H. Choate, in his usual graceful and witty style, which kept his hearers in continual good-humor. He declared that lawyers were kindred to doctors and clergymen, and that their relations should never be inharmonious; but complained that while upon a man's death the clergyman claimed his soul, the doctor his body, and the lawyer his estate, the last named got less than the others. They were continually profiting by the man in his life, but the lawyer had but one chance at him, and that only after his death.

Dr. W. H. Draper and Dr. James R. Wood being unable to be present and respond to the toast of "our sister colleges," sent letters of regret. Isaac H. Bailey responded to the toast of "Our Public Charities," Dr. George K. Smith, of Brooklyn, and Prof. A. E. MacDonald, N. Y., to the "Alumni," and Hon. Chauncey M. Depew to "the press."

About two hundred guests were present, and as usual the affair was a brilliantly successful one. The

speeches were excellent and to the point, and were listened to with the greatest attention.

The following burlesque on the toasts was circulated during the evening, and created much amusement. As will be seen, the quotations are made from some of the well known certificates of certain mineral waters:—

*The City of New York*, "Well suited for cases of acute disease." *The University*, "Not only a luxury but a necessity." *The Council*, "Very mild in its action." *Sister Colleges*, "Most agreeable, alone or mixed." *Public Charities*, "Prompt and efficient." *Our Alumni Association*, "Impregnated with its own gas." *The Pulpit*, "I always recommend it—to my patients." *The Bar*, "I often have recourse to it." *The Press*, "Specially adapted for daily use."

**THE LATE DR. E. R. PEASLEE.**—At a stated meeting of the New York Academy of Medicine, held February 7, 1878, a committee consisting of Drs. Fordyce Barker, James L. Banks, and Austin Flint, Sr., presented, and the Academy unanimously adopted, the following resolutions to the memory of Dr. E. R. Peaslee:

*Resolved*, That by the death of our late Fellow and ex-President, the Academy of Medicine has lost one of its most distinguished and useful members, who was ever zealous for its interest, usefulness, and reputation; who by his great success as a teacher of various departments in several Medical Colleges, has done much for the education of a large class of medical practitioners in all parts of the country, now working in the interests of humanity; who, by his important papers, either read before the Academy, or published in different medical journals, and by his learned and able works, has added much to the science of medicine and greatly improved its practice in many important departments, and has left an imperishable name, greatly to the honor and reputation of this Academy and of the profession of this city and of this country; and who, by his personal character, won our warm esteem and high respect.

*Resolved*, That these resolutions be entered in the minutes of the Academy, and be sent to the medical journals of this city for publication, and that an engrossed copy be sent to the bereaved family.

H. T. HANKS, *Recording Secretary*.

**SUSPENSION IN SPINAL DISEASE.**—Dr. Bernard Roth (*Lancet*, Feb. 2d) says that the "so-called newly introduced method of suspension by the 'gallows' has been largely employed for many years past in several orthopædic institutions on the Continent;" that he saw last spring nearly the identical kind of apparatus used by Dr. Klopsch, of Breslau. "Here a strong horizontal beam is supported at its middle on a vertical mast fixed in the ground, and from the two extremities of the former depends exactly the same kind of gallows as is attached to the apex of Dr. Sayre's tripod. The patient's head having been fixed in the way now so well known here, the cord is shortened till the toes can only just touch the ground; the patient is now told to walk round and round, the horizontal beam being made to turn on a pivot. There are usually two or three cross-beams, and I have seen as many as six patients, walking round simultaneously as best they could on tip-toes, while their spines were being extended by the weight of their bodies. Complete suspension in the air is also employed very often. Even the shoulder-loops are quite identical with those now said to have been invented by the American professor. I saw a similar apparatus and treatment at the orthopædic institu-

tion of Dr. Schildbach, at Leipsic. This gentleman is a *privat docent* of, and has an orthopædic out-patients' department (*Poliklinik*) in connection with the University of Leipsic. It is a curious fact that in Germany the gallows is called Glisson's swing (*Glisson'sche Schiebele*), after Francis Glisson, an English physician, who wrote a book, 'de Rhachetide,' a second edition of which appeared here in London in 1660. He quotes at page 368 a description of the swing, with an illustration, and explains the principle on which it is used. I have no wish to depreciate the great debt of gratitude we owe to Dr. Sayre for his introduction of the plaster-of-paris bandage for spinal disease, especially *malum Pottii*; but I do not think it is quite fair that no acknowledgment has been made of the real inventor of the suspender, nor of the fact of its having been so long in common use in Germany."

**DEATH FROM CHLOROFORM.**—We have made inquiries as to the death from chloroform, reported last week to have occurred at the Devon and Exeter Hospital. From a communication kindly made to us by Dr. H. Gordon Cumming, House-Surgeon to the Hospital, we gather the following outline of the facts. The patient, a well-developed and healthy-looking lad, aged about eighteen, was about to undergo the ordinary operation for the removal of an elongated and indurated prepuce following soft sores. The administration proceeded satisfactorily for two or three minutes, and the boy was becoming anesthetized. A severe spasmodic stage then supervened; a change being noticed in the patient's appearance, the chloroform was at once withheld. This change consisted in a sudden lividity of the countenance and sudden dilatation of the pupils. Every effort was at once directed to restoring the patient: cold water was dashed on the face and chest, air freely admitted into the room, and artificial respiration kept up for a long period. Only about one drachm of chloroform was found to have left the drop-bottle, and the portion sprinkled on the mask, just before its removal, still remained, so that the lad could not have been exposed to the vapor of one drachm. The heart had been previously examined, and nothing found to contra-indicate the anesthetic. No *post-mortem* examination could be obtained, in spite of much persuasion with the friends. —*Brit. Med. Jour.*, Feb. 2.

**TELEPHONIC AUSCULTATION.**—A correspondent in the *Student's Journal* of Saturday has the following: "In my last letter I suggested that the telephone might be used for the purpose of diagnosing heart and lung diseases. I scarcely expected to be called upon just yet to announce that the idea has been carried out, but I observe that a correspondent of the *Medical Press and Circular* states that he has been able, with the telephone, to hear the sounds of the chest, distinctly, at a distance of thirty yards. The time may come when our fashionable physicians will have consulting-rooms in the large provincial towns, each having telephonic communication with his London consulting-room, where he will sit, examine, and prescribe for those patients who would find it inconvenient to come up to town to consult him. Of course, patients would have to attend at the provincial consulting-room at such times as he would appoint. Bristol patients could attend at 10 o'clock A.M., Birmingham at 10.30, Oxford at 11, and so on. There would probably be some difficulty about the fees; they could not be transmitted by telephone. But these could be paid to an agent or secretary."—*Dublin Press and Circular*.



## Original Lectures.

### FRACTURES OF THE NECK OF THE FEMUR IN THE ADULT.

A CLINICAL LECTURE DELIVERED AT BELLEVUE HOSPITAL, DECEMBER, 1877.

By FRANK H. HAMILTON, M.D.

GENTLEMEN:—Before I speak on the special subject selected for to-day's clinic, I wish to say a word upon another matter. Since my last lecture I have received a note from a gentleman asking whether I had not done an injustice to Dr. Buck, in saying that he did not first suggest or practise elevation of the foot of the bed as a means of making counter-extension in fractures of the thigh. I shall not hesitate to mention the name of the gentleman who wrote me the note. I do not think he would object to my doing so, for, although a pupil of Dr. Buck's, and naturally jealous of his well-earned reputation, he is not only one of our best surgeons, but a liberal man, and he would be unwilling to sacrifice truth to friendship. The gentleman of whom I speak is Dr. Weir, of this city.

In an interview which I had with Dr. Weir subsequently, he stated that, while a pupil of Dr. Buck's, and one of the house-surgeons to the New York Hospital in 1859, Dr. Buck directed him to elevate the foot of the bed in the manner that we now do, and that he dressed a fracture of the thigh in this way; and this, he feels certain, was the first time Dr. Buck tried this method. I was then able to show Dr. Weir that I had published this method in 1857, in the third part of my "Report on Deformities after Fractures," at pp. 436-7 of the "Transactions of the American Medical Association" for that year, a description of the method being accompanied with three woodcut illustrations; and I speak there of the method as having been suggested by Dr. James L. Van Ingen, of Schenectady, N. Y. I was engaged several years in the preparation of the consecutive numbers of this report, and they were published in the Transactions for 1855, 1856, and 1857. My impression is, that these woodcuts were received from Dr. Van Ingen several years before they were published, but this is not material; they were published in 1857, and Dr. Buck made his first experiment in 1859, according to Dr. Weir.

It will be seen, if you look at the report alluded to, that the foot of the bed was placed at different heights in the three woodcuts, but in all of them it was higher than we now raise it; and the first time I ever tried the method I followed Dr. Van Ingen's practice, and found it very uncomfortable. It is worth your while to notice that Dr. Van Ingen calls attention to the necessity of keeping the pillow under the head, so as to "leave the neck and shoulders quite free;" that he places a pad under the knee, and under the leg above the heel, as I have recommended to you before—showing that he had practical experience in the matter. In one of his woodcuts the extension is made by a gaiter, and in another by adhesive strips.

NOTE:—I find that there are two other errors to be corrected in this connection, one or both of which I may, perhaps, have contributed to propagate.

First.—Dr. Buck was not the first to employ the pulley and weight as a means of extension. The earliest account of this method of which I have any knowledge is furnished by Dr. L. A. Dugas, of Augusta, Ga., and will be found in my report to the Amer. Med. Association,

vol. x., pp. 434-5, for the year 1857 illustrated by two woodcuts. As will be seen, directions are there given for making extension by a weight and pulley—the rounded top of the foot-board serving as the pulley. Dr. Dugas used a loop of bandage instead of adhesive plaster, to take hold upon the foot and leg. "A two or three pound weight should then be fixed to the foot and hung over the foot-board of the bed, as indicated in the annexed figures, so as to keep up extension, while the resistance of the patient's body will effect counter-extension," etc., p. 434. The weight was much less than we now use, but the idea of a weight and pulley is clearly stated. Dr. D. had even thought of and practised making counter-extension by the weight of the patient's body, but he had not elevated the foot of the bed. The apparatus as thus constructed was far less perfect and efficient than that now employed.

Second.—I was not the first to suggest the long side-splint as I have once publicly stated, to make certain that the body and upper fragment of the broken thigh were kept in line with the lower fragment. It was suggested and practised by Dr. Dugas, as will be seen by a reference to the same report. He used it to keep the body in line, but not to prevent eversion. His apparatus was also shown in the first edition of my book on Fractures and Dislocations, p. 414, but it was dropped in subsequent editions, and Dr. Buck's substituted. Dr. Buck used the same round ball for extension as was used by Dugas, but he substituted a pulley for the round top of the bedstead.

I will add a paragraph from a letter written by Dr. Dugas, and sent to me by Dr. F. G. Smith, Secretary Amer. Med. Association, not heretofore published. Perhaps the profession may have very little interest in these questions of priority, but as the questions have been raised it seems proper to state the facts once for all:

"Augusta, Ga., June 27, 1857.

"DR. F. G. SMITH:—

"DEAR SIR:—In compliance with the request of Dr. Frank H. Hamilton, of Buffalo, I now send you a couple of sketches, with a brief description of the method I have long adopted in treating fractures of the thigh."

Then follows a description of the apparatus, and an allusion to his well-known mode of diagnosing dislocations of the shoulder, which I shall omit. It is my impression that the apparatus will be found in some of the earlier numbers of the *American Jour. of Med. Sciences*, but I have no time to look for it.

The "American method," then, as I have chosen to call it, is indebted especially to the following gentlemen for its present state of perfection.

In 1851, Dr. Josiah Crosby published his method of extension by adhesive strips.

In 1857, and probably many years before, Dr. L. A. Dugas recommended the weight and pulley (the round top of the bedstead), and suggested the weight of the body as a means of counter-extension, and the long splint to keep the fragments in line, which I also used many years before I published any account of my method.

In 1857, or earlier, Dr. James L. Van Ingen elevated the foot of the bed to increase the weight of the body as a means of counter-extension.

Dr. Buck substituted a pulley proper and an upright board to carry the rope. He did not use the long splint, and for a long time after 1859 he used and recommended a perineal band.

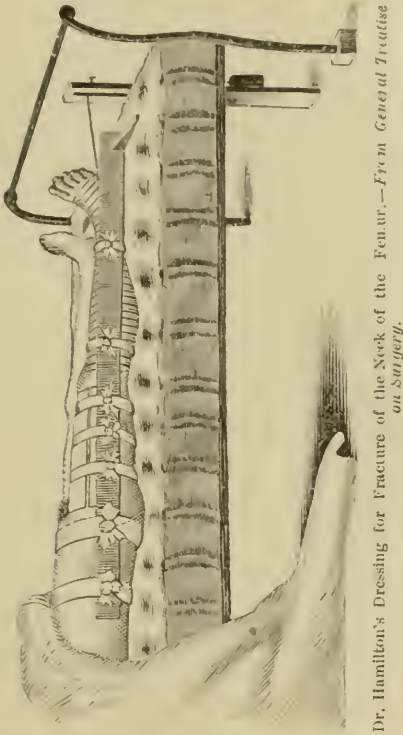
If I have contributed anything myself, it has been by the combination of the various improvements, by the addition of certain minor modifications, and by giving to the whole the test of extensive and comparative trial.

We will now consider *fractures of the neck of the femur*, of which we have several examples before us. I shall confine myself to these fractures as they occur in adult life. Fractures of the neck in early life are exceedingly rare, and the few cases which

have been recognized clinically have all left a doubt as to their exact character.

I do not propose to speak particularly of the pathology of these accidents, or of their causes or signs. I shall assume that you have studied all these matters. My present purpose is to speak only of the treatment.

It is necessary to say, however, that a fracture may occur within the capsule or without the capsule, and that the latter are almost always impacted, the neck being driven into the shaft, and being there more or less firmly fixed. We have these two kinds of fractures in old people mostly, and although they differ considerably as to their causes, their symptoms and



Dr. Hamilton's Dressing for Fracture of the Neck of the Femur.—From General Treatise on Surgery.

their results, the proper treatment in the two cases differs very little.

Let us see. If the fracture is within the capsule, it may not shorten at all at first; but inasmuch as in almost every such case, perhaps in every case, the neck will be in part or in whole absorbed, generally within a few days or weeks—for this process of absorption goes on very rapidly after the fracture has occurred, as I have proven by several observations upon the cadaver,—for this reason a shortening must soon occur, and in the end the upper end of the shaft will become attached by fibrous tissue, perhaps to the head of the bone, remaining in the socket, perhaps to the capsule and other parts about the joint—perhaps to both; and the shortening is apt to be very great, being probably greater in proportion as the upper end of the shaft and the portion of the neck attached to it is drawn farther from the head by the action of the great muscles of the thigh and hip. You see, therefore, that in this case it might be an object to hold the limb extended for a time with a weight and pulley, and thus to make the fibrous bond as short as possible; in other words, to secure for the limb as much length as possible. I do not speak of this as an ascertained fact, namely, that by permanent extension

maintained for a few weeks, the limb, in case it has been broken within the capsule, will be in the end longer than if no such extension had been used. It is a theory only, which to me seems plausible, but which I have not proven. If, as some have thought, and perhaps some still think, a bony union is occasionally effected after this fracture, then certainly the extension would be useful for this purpose. I do not deny that such a thing has ever occurred, but I have never seen it, and I think its occurrence very improbable, even under the very unusual and the most favorable circumstance, namely, when the intracapsular fracture is at the same time an impacted fracture. I do not discuss that now. All I wish to say is, that my treatment would be proper in any view of the case.

There is another reason for extension in this case, if it can be employed. In my experience it has given the patient great comfort. It has arrested the contraction of the muscles and the constant motion of the fragments; and if the fragments are already displaced, this contraction and motion causes great pain by pricking and goading the inflamed capsule and the adjacent soft parts. The patient is easier the moment extension is applied. This is not speculative, but actually proven. I have observed it so often that no doubt remains in my mind as to its value in this point of view.

Let us consider now for a moment the *extracapsular*, impacted fracture; and these are almost always impacted.

These all unite readily by bone, and being impacted they unite very quickly. They are almost always found shortened from the very moment of the accident. Sometimes very little and sometimes a good deal—the shortening varying in different cases from one-quarter of an inch to one inch, possibly more or less in exceptional cases. This shortening has very little tendency to increase; but sometimes, if left to itself, it does increase quite perceptibly. The continued action of the muscles push the neck farther and farther into the broken, comminuted, and softened trochanter; softened after a few days by the inflammation.

At the same time and for the same reason that there is a tendency to shorten, there is also a tendency in the fragments to incline outwards laterally, and to cause a projection in that direction. In addition to all this the limb is apt to become everted, and this is partly owing to the action of certain muscles.

Now, with this brief explanation of certain peculiarities in these two forms of fracture of the neck of the femur, we will be able to understand what are the indications of treatment in each.

When speaking of fractures of the shaft of the femur in the adult, I said the first indication of treatment was to overcome the shortening caused by the contraction of the muscles, a shortening which we find present in these cases from the first. It is present immediately or very soon after the fracture has occurred, and it has to be overcome by energetic means. The second indication was to keep the fragments in line; and the third and least important, or least difficult to accomplish, was to prevent eversion.

When speaking in my next lecture of fractures of the shaft of the femur in children, I said the indications were in some sense reversed; the first or most difficult, being to keep the limb in line, and the second being to overcome the shortening in case any existed.

Now, in both of the forms of fractures under consideration to-day, the first indication is not to "overcome," but to prevent shortening, and incidentally to subdue or prevent pain; the second is to maintain



the fragments in line, and the third is to overcome or prevent eversion. The greatest difference is found in the fact that now shortening is inevitable, but we have the means of making it less than it would be if left to itself. At least in the case of the extracapsular fracture we can keep it where we find it, while in the case of the intracapsular fracture we can make the patient more comfortable and may hope to make the limb longer than it would otherwise be.

The treatment is then essentially the same as for a fracture of the shaft in the adult, except that instead of eighteen or twenty pounds we use eight or ten.—no coaptation splints are required—and the extension is seldom useful after about four weeks.

In the case of the patient before you, Catherine McCloud, the fracture is extracapsular. The patient is forty years old. She fell in the street, striking upon the left trochanter, and was on the same day brought to the hospital. Dr. Halsted, my chief house-surgeon, who is remarkably careful and accurate in his management of these cases, found the limb shortened and everted. The dressing was at once applied. Extension with a weight of eight pounds; the foot of the bed being slightly elevated, and the long side-splint being secured to the body and the left thigh. Now, at the end of four weeks, we permit this apparatus to be removed, and I find the limb shortened half an inch and slightly everted. The treatment is essentially completed, but she ought to remain in bed a week or two longer and then go about upon crutches.

The tendency to eversion in this case was marked from the first, and has not been overcome. My own long splint has failed to accomplish this; but Dr. Monroe, house-surgeon, has employed also in this case two pulleys instead of one, with the two lateral adhesive strips separated below the foot widely. This evidently has some effect in preventing eversion, but it has failed here. In addition to all this, there has been added an apparel devised by Volkman, a German surgeon, and described by Billroth; but you see this has failed equally. In short, you may learn from this that, in a certain number of cases of extracapsular fractures, and for reasons which I cannot now stop to explain, it will be found impossible to prevent eversion, but you ought always to try to make it as little as possible, and we think we have done so in this case.

The second example is in a woman much older, sixty-five years old. For your convenience in recording your notes I will give you her name also—Mary Stafford. She has been under treatment three weeks, and we find the limb shortened three-quarters of an inch, but with less eversion than in the preceding case.

Here is a third case; Pat Nugent, forty years old, fell thirteen feet, striking upon his trochanter, December 1, 1877. He was admitted on the same or following day, and was examined by me. The left leg was found shortened three-quarters of an inch, but he then informed us that this limb was always just three-quarters of an inch shorter than the other, and that his tailor always made this difference in the length of his pants. There being no eversion or other sign of fracture, I directed that no apparatus should be applied, but that the limb should be measured from time to time, and that he should be kept in bed. On the 10th day we found half an inch additional shortening, in all one and a quarter inches, and as this determined the question of fracture, extension was at once applied. The result is that we have prevented any further shortening. The limb being now one and a quarter inches shorter than the other, or one-half inch shorter than natural. There is now the

characteristic enlargement about the trochanter, showing that it is an extracapsular fracture.

I cannot say positively that this limb was not some shortened at first, as I have nothing but his statements to rely upon; but it certainly shortened after he was admitted, and this is a new and important point. I believe, from my later experience, that this happens pretty often when extension is not employed.

My fourth case is of unusual interest, because the same fracture has occurred in both thighs at different periods of time, and the treatment and the results have been different. In all, I am able to present you then with five cases of extracapsular fracture. This last case is as follows:

Dennis Kelly, then seventy-two years old, was admitted to Bellevue in November, 1873, with an extracapsular fracture of the left leg. On the ninth or tenth day after admission, and after the fracture, the limb was done up in plaster-of-paris bandages, and soon after he walked about. The plaster remained on several weeks, being once renewed.

On the 30th of October last he fell upon the right side, breaking the neck of the femur on the right side, outside of the capsule, and was admitted at once to this hospital. On the following day Dr. Halsted applied my dressings, with eight pounds of extension. The man says: "From the moment the extension was applied I had no pain." This is the usual testimony. The apparatus was continued about five weeks, and we have now to note the results of the two fractures. The left leg—treated with plaster-of-paris—is half an inch shorter than the right—treated by extension. The left trochanter and upper part of the left femur is bowed out, causing an ugly projection; the right trochanter and shaft have their natural form and position. In short, the left limb is in the same situation it would have been if nothing had been done, perhaps worse. In the right leg the result is certainly better. I am going to have the patient photographed.

*Intracapsular Fracture.*—Finally, I wish to show you, gentlemen, this old lady, Catharine Daly. She says she is seventy years old. This is an intracapsular fracture; the only intracapsular fracture out of six fractures of the neck which I have shown you to-day. In my Treatise on Fractures, fifth edition, I have spoken of the relative frequency of intra- and extracapsular fractures as still in dispute. In my experience, however, the extracapsular have been made the most frequent.

Observe now the points of difference. This patient is the oldest of them all, but none are younger than forty. The accident occurred, not from a fall on the trochanter, but from a slip of her foot while trying to drive flies from the room; there is no enlargement about the trochanter, although three or four months have elapsed since the accident; the limb is shortened one inch; and this is more than in either of the other cases; the toes are turned out strongly.

During the first three weeks she was under the care of Dr. Mott, and extension was employed by my apparatus with eight pounds. Since then she has been encouraged to get up and use her crutches, which she now does to some extent daily. While the extension was on she was very comfortable, but a long confinement would have made her bed-ridden, and it was removed as soon as the stage of inflammation was passed.

This completes my analysis of these cases. The result is in no case perfect, but we have reason to believe that all of those have been benefited, and their limbs rendered more useful, in whom moderate and continued extension has been employed for a period of from three to five weeks.

## Original Communications.

### DOSE DISPENSING SIMPLIFIED.

AN EASY, ECONOMICAL, AND ACCURATE METHOD OF DISPENSING MEDICINES IN A COMPACT AND PALATABLE FORM.

By ROBERT M. FULLER, M.D.,

NEW YORK.

(A paper read before the New York Academy of Medicine, Feb. 21, 1878.)

MR. PRESIDENT AND FELLOWS OF THE ACADEMY:—The inability frequently experienced by physicians to obtain certain medicines, in separate doses, of a desired formula and mode of preparation, led me, some time ago, to undertake a series of pharmaceutical experiments with a view of contriving some simple, inexpensive and readily available method of preparing the medicines so desired.

After a number of varied and careful experiments, I succeeded in devising four methods of preparation, which, thinking that they might prove of interest as well as utility to the profession, I have ventured to present to you very briefly, and, I fear, somewhat imperfectly, this evening.

The preparations in question I have named *soluble tablets*, *tablet triturates*, and *pill* and *tablet saturates*, the former being designed for any powders which are to be administered in certain required doses, and the latter for certain of Squibb's fluid extracts, or other standard concentrated solutions. Of course, in the case of physicians practising in the city, where pharmacies are both so numerous and convenient, the application of these methods would be necessarily limited. They are mainly intended for physicians practising in the country, to whose use they are adapted by reason of their economy, dose-accuracy, compactness, and palatable form for dispensing.

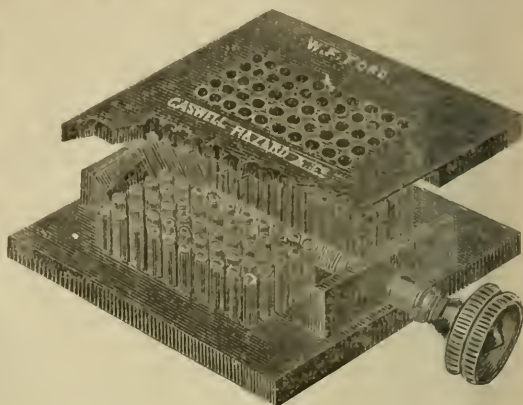
The SOLUBLE TABLETS generally consist simply of certain medicines made into soluble paste with the aid of sugar of milk and alcohol, or water. In some instances, however, it is found necessary to employ an excipient more adhesive than sugar of milk. But in such cases, of course, as little of such excipient as possible should be used, in order that the tablet may be readily soluble in the mouth or stomach, or diffusible in a spoonful of water, and thus administered.

The tablets are intended to embrace any medicines that can be made into a paste which is not too tenacious, such as fluid extracts, or sugar of milk containing any per cent. of chemical, such as arsenious acid, sulphate of morphia, muriate of ammonia, etc. Both preparations can be made with alcohol of eighty-five per cent. or over, and pulverized acacia, according to the adhesiveness required.

When fluid extracts are used, one minim or less may be mixed with a compound of two grains or less of sugar of milk and pulverized acacia, allowed to partially dry, and then be made into a paste with alcohol of eighty-five per cent.

The apparatus used in preparing the soluble tablets just described consists of a small bed-plate three-eighths of an inch in thickness, and five to seven inches square, made either of hard rubber or gold-plated metal, with a companion perforated plate, of similar dimensions, made adjustable and registering, and containing one hundred circular holes, more or less, as desired. The bed-plate is furnished with a number of small cylindrical projections, correspond-

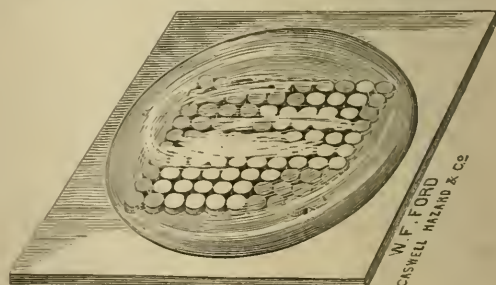
ing with, and fitting into the perforations of the upper plate. At each corner of the bed-plate is also fitted a short rod for the purpose of keeping the upper plate in position, and, at the same time, insur-



TABLET-MAKING APPARATUS.\*

ing its proper working. The upper plate is adjusted for the tablet mass, in accordance with the size of the tablet required, by a simple device of a screw, wedge, or lever. The paste, when of a proper consistency, is then introduced into the perforations of the upper plate by spreading it over its surface by means of a spatula. By the turning of the screw, or the removal of the wedge, the plate is next forced downward upon the projections of the bed-plate, which, in turn, force the tablets out in perfect shape. They are then removed and allowed to dry, after which they are used as has been described.

The TABLET SATURATES, which are similar to the pill saturates, to be described later on, are merely porous troches, or tablets designed for saturation. The difference between the tablets and the pills, beyond the difference in shape, being that the former will absorb a much larger quantity of fluid extract, or other standard concentrated solution, than the latter. The porous quality is secured generally by mixing *finely pulverized* sugar of milk with alcohol of eighty-five per cent., and then forming the paste into tablets of any desired size, and allowing them to dry. The tablets as thus made would be adapted for fluid extracts and certain solutions of great consistency, while a paste



METHOD OF TABLET SATURATION.

made of sugar of milk, mixed with water, would be found better suited for fluid extracts and certain solutions of less density.

The method of medication consists of arranging any

\* Mr. W. F. Ford, of Messrs. Caswell, Hazard & Co., has kindly furnished the above figure of the tablet-making apparatus, combining the screw and wedge principle, and also the wood-cut illustrating the method of tablet saturation.



number of tablets upon a glass plate, either together, in consecutive parallel rows, as shown in the accompanying wood-cut, or, in some instances, separated.

In the former case the fluid extract, or solution, is poured over the tablets, in the proportion of one minim to two grains, or a sufficient quantity for complete saturation, while in the latter a corresponding quantity of the solution is dropped upon each tablet by means of an improved minim dropping-tube. A funnel or glass may be loosely placed over them. They are then allowed to dry, after which they are ready for use.

The apparatus used in preparing the tablet saturates is similar to that used for making the soluble tablets. It consists of a similar bed-plate, provided with similar projections, and a perforated upper plate, the thickness and the diameter of the perforations of which are made with regard to the number of grains to be contained in the tablet desired.

The paste for the tablets is introduced into the perforations by spreading it with a spatula over the surface of the plate, while the latter rests on a square of glass. The under surface is then smoothed over, and the plate placed into position upon the corner rods of the bed-plate, and the apparatus operated as when making the soluble tablets.

The TABLET TRITURATES consist of triturations of metallic, mineral, and vegetable medicines, such as were mentioned in the paper recently read before the Academy by my friend Dr. Piffard, and found in the MEDICAL RECORD, vol. xii. p. 756. These preparations can be mixed with alcohol of any per cent., or water, according to the adhesiveness required, and the paste thus formed is then readily made into tablets of any size, with either of the above apparatus,

as may be desired. They may also be made very inexpensively with a less elaborate apparatus, consisting of a single plate of hard rubber, containing two hundred holes of any dimension required, drilled as close together as possible. These being filled with the paste, the tablets, when not too tenacious, may readily be removed in proper shape by holding the plate in one hand, and with the other tapping it with a spatula, when most of them will fall out, those that may remain being easily removed by pushing them out with a small rod. Dr. Piffard has found that a plate three millimetres in thickness, containing holes six millimetres in diameter, will produce tablets of about one decigramme in weight, while a plate four millimetres in thickness, with holes eight millimetres in diameter, will produce tablets of about two decigrammes in weight.

The PILL SATURATES possess two favorable qualities, namely: they are made easily, and at an extremely low cost, those made with fluid extracts costing only about twenty-five cents per thousand. But little time is needed in their preparation, and the only apparatus required is a dispensing vial and a minim measure, or pipette. In the numerous experiments I have made, I have found that solutions in alcohol of eighty per cent., and aqueous solutions concentrated, were best adapted to the purpose of saturation. I have, however, used various other liquids and solvents with equally satisfactory results.

The process of saturation is very simple. Sufficient sugar globules of uniform size are introduced into a square dispensing vial of either four, eight, or sixteen

ounce capacity, according to the number of pills designed to be saturated, to nearly cover one of its sides when it is placed in a horizontal position. I have found that No. 60 pill, which is six millimetres in diameter, is of suitable and convenient size for the purpose. [These globules, which are made of refined cane-sugar, are numbered as to their size upon a basis of measurement of *ten diameters* in millimetres.] The vial is inclined, and sufficient liquid—in which has been dissolved the required amount of medicine for each pill—is introduced by means of a minim pipette or measure, to completely saturate the globules. The vial is then held in a horizontal position and the pills agitated to equally moisten them, care being taken to avoid spreading the liquid on the other sides. While in this position, the vial is corked and allowed to rest until the pills are thoroughly saturated, which requires twenty-four hours or more. The vial remaining in the same position, the cork should be removed and the pills allowed to dry by evaporation.

Where alcohol of eighty per cent. or more is the solvent, the solution to be introduced into the saturate can be of any strength. This principle applies also to the other solvents, such as ether, in which sugar is insoluble, and which will evaporate on standing. When water, or alcohol of less than eighty per cent., is the solvent, the solution should be concentrated to avoid the dissolution of the pills. The capacity of absorption possessed by the pills is varied, the maximum being one minim to about  $15\frac{1}{2}$  grains when the solvent is alcohol of eighty per cent. and over. The proportion, however, is not so large where concentrated aqueous solutions, or alcoholic solutions of less than eighty per cent. are used.

When these saturates contain volatile medicines, such as camphor, etc., it is expedient to give them a thin coating of albumen, or some similar transparent substance. While this prevents volatilization, it also enhances the appearance of the saturate. The method of coating, like the process of saturation, is also simple. The saturates are agitated in a little albumen, and, when covered, are placed on a glass plate, separated, and allowed to dry. A second or third coat may be given if necessary.

This constitutes the salient features of the four methods. They are given to the profession now at the personal solicitation of several of its members, and with full consciousness that there is still much room for improvement in them. They have at least a justification for their presentation at the present time, however, in the fact that, if applied to the field for which they are designed, they will be found practical.

The application of the principles is necessarily limited; but if, in the future, it shall have been found that its adoption by the profession resulted in the increased utility of a certain class of remedies, or the simplification of the method of administration, the purpose of the presentation of this paper will be more than fulfilled.

Thanking the members of the Academy for the honor and privilege conferred upon me in the granting of this hearing before them, and for their kind attention, I respectfully submit for their inspection a few preparations made by the method described:



MINIM  
PIPETTE.



MINIM  
MEASURE.

## TABLETS.

|                                          |                                               |
|------------------------------------------|-----------------------------------------------|
| Acid. arseniosi.....                     | 1-20, 1-50 and 1-100 gr.                      |
| Aconitia.....                            | 1-50 "                                        |
| Aconiti rad. ext. fl. (Squibb's).....    | $\frac{1}{2}$ and 1 M.                        |
| "    tinct.    "    .....                | $\frac{1}{2}$ and 1 "                         |
| Ammonia muriat.....                      | 3 and 5 gr.                                   |
| Antimon. et potass. tartrat.....         | 1-50 and 1 100 "                              |
| Atropia.....                             | 1-60 "                                        |
| Belladonna fol. ext. fl. (Squibb's)..... | 1-2 and 1 M.                                  |
| Calomel.....                             | $\frac{1}{2}$ , 1 and 2 gr.                   |
| Digitalia.....                           | 1-60 "                                        |
| Ergotæ ext. fl. (Squibb's).....          | $\frac{1}{2}$ and 1 M.                        |
| Ferri lactat.....                        | 1 gr.                                         |
| Hydrarg. biniodidi.....                  | 1-32 "                                        |
| "    chlor. corros.....                  | 1-10 "                                        |
| Ipecac. ext. fl. (Squibb's).....         | $\frac{1}{2}$ , $\frac{1}{2}$ and 1 M.        |
| Morphia sulphatis.....                   | 1-8, 1-6, $\frac{1}{2}$ and $\frac{1}{2}$ gr. |
| Nucis vomica ext. fl. (Squibb's).....    | $\frac{1}{2}$ , $\frac{1}{2}$ and 1 M.        |
| "    tinct.    "    .....                | 1 "                                           |
| Potass. bicarb.....                      | 3 and 5 gr.                                   |
| "    chlorat.....                        | 3 and 5 "                                     |
| Quinia bisulphat.....                    | $\frac{1}{2}$ , 1 and 2 "                     |
| Soda bicarb.....                         | 3 and 5 "                                     |
| Strychnia.....                           | 1-6J "                                        |

## PILLS.

|                                        |                       |
|----------------------------------------|-----------------------|
| Aconiti rad. ext. fl. (Squibb's).....  | 1-6, 1-10 and 1-20 M. |
| Belladonna fol. ext. fl.    "    ..... | 1-6, 1-10 and 1-20 "  |
| Capsici    "    "    .....             | 1-6 1-10 and 1-20 "   |
| Ipecac. ext. fl. (Squibb's).....       | 1-6, 1-10 and 1-50 "  |
| Nucis vomica ext. fl. (Squibb's).....  | 1-4, 1-10 and 1-50 "  |

136 WEST 42D ST.

## THE ANTECEDENT TREATMENT OF THOSE EXPOSED TO ZYMOTIC DISEASES.

By E. M. HUNT, M.D.,

METUCHEN, N. J.

AN address before the American Medical Association (1877), and two articles on individual sanitation (MEDICAL RECORD, N. Y., Nos. 359, 370), have brought me letters from individuals—some of whom are personally unknown by me—sufficient to show that the subject is one eliciting much inquiry. I am asked to state definitely the theory of prevention, and the details as applicable in practice.

First of all, let it be understood that the proposal to prevent or abate zymotic diseases by antecedent medication is based upon two views:

I. That the contagium vivum is introduced into the human system from without, and mostly through inbreathed air. The proposition is so to surcharge the mouth and nostrils with substances inimical to the lodgment, propagation, or absorption of the contagium as to render the breath and the tissues more immediately exposed to inspiration unfriendly to the development of the contagium. When the floating infective particle presents itself, either for local manifestation or for absorption, it may take but slight unfriendliness of reception to prevent morbid result. I know not how little sulphur, or even lard alone, will prevent the egg deposit of the acarus scabiei or its incubation. The same is true as to the attachment of fungi, spores, etc. What we know as to both plants and animals shows how condition of surface, and even odors, determine choice of location, and the "instinct" of "infectants" shows choice and interruption not less wonderful than that which occurs in animal and vegetable (parasitic) life. In diseases such as diphtheria and scarlet fever, which have, at the start, such marked local manifestation as to lead to the hypothesis that they are local before they are

constitutional, there is indication for special localization of protective methods besides the constitutional prevention or treatment.

In an article on diphtheria in your journal of Jan. 23, 1875, we therefore insisted upon the value of local medication, although aware of the disposition of some good authorities to ignore it. Local applications to the membrane and its edges, local ablation of the fauces to prevent the adherence or absorption of infected particles, avoidance of swallowing the spittle or secretion, and frequent rinsing of the mouth, were advised. Our design and method is not to leave the mucous membrane of the air-passages without the presence of the antiseptics. We even value the muratis ferri chlorid, the more because of its corrugant or mechanical effect, as it thus disturbs the apposition of surfaces. In an article on scarlet fever in the RECORD, June 19, 1875, the same frequent cleansing of the throat, with a view to local effect, is insisted on. It somewhat surprises us to hear one of your recent contributors speak of his new method of frequent local medication.

Our second proposition is so to introduce substances into the blood, and through it into the body, as to prevent those fermentive, defibrinizing, or destructive processes which come to constitute the peril of these diseases. The article just alluded to sufficiently presents the method as adopted for early treatment. But we believe further that certain substances, thus introduced into the blood, and mingling with the secretions before the prodroma are manifested, are still more operative for prevention or limitation of the infective diseases. We thus not only protect the portals of entrance, but so infuse the fluids, glands, etc., as to have present in them an agent which will resist such morbid action as the disease toxic seeks to set up. How much may be due to the local hindrance to fertilization, and how much to the constitutional resistance established, may not, in each case, be easy to determine. But when we find how readily chlorate of potassium, after being administered, is found in the secretions, how soon a few grains of pure protochloride of iron increase by count the red globules of the blood, how defibrinization of the blood—so constant an occurrence in some of these diseases—is retarded by certain additions to the vital fluid, we are very hopeful that our power to suspend the action of disease poisons will be greatly augmented.

With quinine the experiment has been sufficiently sustained. It is taken—and taken successfully—as a prophylactic, by persons who have not had ague, but who are compelled to traverse miasmatic districts. The ratio of escape, and the value of such treatment to prevent recurrence, simply mean that somehow such resistance of the system is established as prevents the usual manifestation of morbid power. The miasm is inbreathed, but the receptivity of the system is suspended. We would experiment in the same direction in reference to all diseases the causes of which enter by atmospheric conveyance. The principle, too, is applicable to some of the diseases conveyed by imbibition. It will be a great gain if, in addition to seeking and finding the contagium vivum, or the conditions of its propagation by external nuisances, we can also exercise upon the individual prophylaxis, which means "to defend beforehand." The doctrine of the incompatibility of certain substances with the development of zymotic diseases is quite in accord with views which have been entertained or illustrated by facts. The influence of the sulphites, as shown by Prof. Polli, of Milan, we have before noted. The interference of vaccination with the progress of whoop-



ing-cough has long been asserted by various reputable practitioners.

Dr. E. J. Syson, one of the English Medical Officers of Health, in a paper noticed in the *London Sanitary Record*, November 23, 1877, as of great importance, advocates the antagonistic treatment. He was led by some facts coming under his notice "to infer that it was impossible to vaccinate successfully a patient who was at the time under the medicinal influence of arsenic." In other words, it is possible to put the system in a condition temporarily unsusceptible to the "contagium vivum." He applied this mostly to the use of arsenic as an antiseptic in cases of actual attack. So important do the facts seem to the reviewer, that he says, if they are corroborated by other trials, the value of such treatment will be but little less than that of the discovery of vaccination. The paper of Prof. Hodgen, on Antiseptic Surgery (Int. Med. Congress, 1877), is worthy of reading in its bearing on antiseptic medicine. The third conclusion is, "It is possible that the living solids and liquids of the body may be so altered that they shall not furnish the conditions necessary to putrefaction." So, as to zymotic diseases, I believe we are yet to come to a recognition of our power by the use of medicines in advance to protect from prevalent epidemics. One class of agents may do it by the action of presence, another by chemical reaction; another by such antiseptic action as suspends excessive metamorphosis, or so deals with debris as to render it innocuous. Others, as is claimed for ammonia and liquor potasse, retard the coagulation of fibrin. We are no longer confined to chemical antidotes, although these may operate upon disease toxics as well as others. Ergot and nitrate of amyl affect the calibre of blood-vessels, on a plan different from that of gallic acid.

Oxygen, electricity, ammonia, etc., are showing powers quite different from those of an alkali upon an acid. Just now we are not so much concerned about the theory of action as about the fact. The need is to accumulate evidence by those whose trials are exact in the details of method and in the record of results. We cannot at present be decisive as to all the agents which interfere with zymotic infections, or as to those which are especially adapted to each particular form. We need only now indicate those upon which we have relied, and the method of their use. The articles themselves are not new, but they are claimed to be preventives, to be used before any manifestation of disease in the individual. We shall here merely outline the method of individual sanitation adopted in diphtheria and scarlet fever as a specimen of the general course of management.

In the case of all children in the family beside the one attacked, give the skin a washing or wiping each day with lukewarm carbolie wash of the strength of Squibb's 2 per cent. disinfectant solution of the mixed phenols. As we have always inclined to the view of a localized planting or absorption, we use frequent local treatment. A gargle of chlorate of potassium three grains, tinct. chloridi ferri three drops, water three drachms, is to be used frequently in the mouth, and some of the same is used about the nostrils. Frequency at first is far more important than quantity. Employ both what is used as gargle and for administration every two hours in the day, and every two or three hours between 10 P.M. and 6 A.M. We give internally every three hours the same amount as named above for a gargle, and every two hours if there has already been more than two days of exposure. After one or two days the chlorate of potassium and the iron can be detected in the secretions. So the buccal cavity and

fauces have a share from this source, and the local use may be lessened one-half in frequency. The design is not to leave the mouth or the system without the indicated presence of these two articles, during what would be the prodromal stage of the disease. In diphtheral exposure we give in addition two grains of quinine twice each six hours apart. It is important to have the tinct. muriatis ferri of that made several months, and in its purest form, in which, and in which only, it contains the "sesquichloride of iron, muriatic acid, and alcohol, and from the reaction of the last two ingredients muriatic ether." "It is," says Wood, "possessed of peculiar properties, probably in some measure owing to the ether which it contains." In the preventive method for scarlet fever we do not use quinine. In addition to the diphtheral treatment we use Calvert's carbolie acid in a weak solution twice per day, and cleanse the teeth and mouth with a tooth-powder of equal parts of chlorate of potassium and powdered gum arabic. More attention is to be paid to a restriction of animal food with children who are full habited, and if the iron produces any constipation, as it generally does not, a mild cathartic is of service. Fuller particulars as to these or other diseases are not needed beyond those given in previous articles, and until more observations from others are accumulated. Reports either of failure or success need to be explicit as to the length of medication and the precise frequency, and the whole amount of preventive used; also as to the degree of severity in cases in which attack is not avoided. Our position as to the plan of prevention is not that of dogmatism, but only that of an impressed inquirer. Sir Thomas Watson has ably written on the abolition of zymotic diseases, from the standpoint of outside sanitation. There is internal sanitation as well. We do not fasten our faith to any one remedy, but believe there is a field of observation in the area of personal disinfection and antiseptic provision which may yet show us how to invalidate the title and so take possession as to dispute the occupancy of many an infective disease. It is not by large dosing or inadvertent medication, but by that intelligent supervision and timely contravention which make the ounce of prevention more potent than the pound expended for attempted cure—too often failing just because the vicious poison has already so affected fluids and functions and organs as to impede those processes which are not less indispensable for the physiological effect of medicines, than for that of all vital repair.

If "antiseptics may alter the tissues of a wounded surface so that, though septic matters are present, they may not be absorbed," and if living solids and liquids may be so altered that they shall not furnish the conditions necessary to the development of disease, we will not despair of "prohibiting," of "having beforehand" in the system unsusceptibility to the invaders, such as will not respond to their attempt at sovereignty.

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LECTURES ON COOKERY TO MEDICAL STUDENTS.—Lectures upon sick-room cookery were recently given by Miss Dodds to the medical students of Edinburgh. As might have been expected, the attendance was large and the audience highly appreciative.

DR. FLEETWOOD CHURCHILL, the late distinguished professor of midwifery in the School of Physic in the University of Dublin, etc., died recently in County Tyrone. He will be recollected by the most of the older medical men as the author of a very popular treatise on midwifery.

## Progress of Medical Science.

**ENDOCARDITIS AS A COMPLICATION OF TYPHOID FEVER.**—Endocarditis is a sufficiently rare complication of typhoid fever to render interesting the following case, observed on the service of M. Desnos, *Hôpital de la Pitié*. The patient was admitted to the hospital with typhoid fever, from which he was recovering when he suffered a relapse; while convalescing from this, undue exposure brought on a severe attack of bronchitis, accompanied by diarrhoea. This left the patient in a very reduced condition, and predisposed to the attack of phlegmasia alba dolens which shortly afterwards appeared in the left leg. Oedema of the other leg was soon observed at the same time, with marked dyspnoea, and auscultation revealed endocarditis, characterized by a double murmur at the base. As, during the progress of the disease, frequent and careful examinations had failed to reveal any affection of the heart, M. Desnos did not hesitate to consider this a recent attack dependent on the fever from which he had been suffering. Typhoid fever, like variola, and scarlatina, and some other fevers, may now be looked for in the previous history of those subjects of heart disease in whom the cardiac affection cannot be traced to some previous attack of rheumatism.—*Journal de Médecine*, December, 1877.

**ENDOCARDITIS AS A COMPLICATION OF GONORRHOEA.**—Gonorrhoea is so generally looked upon as a benign affection, that the possibility of such a complication as endocarditis is but rarely considered in the prognosis. In the following case, however, M. Desnos is confident that he had an endocarditis clearly traceable to gonorrhoeal rheumatism. The patient was admitted to the hospital for acute bronchitis, and shortly afterwards was seized with persistent pains, accompanied by redness and swelling in the shoulder and in the sterno-clavicular articulation. Up to this time he had never suffered from articular rheumatism, but he was then suffering from gonorrhoea. A little later he was attacked by intense dyspnoea, accompanied by palpitation; the action of the heart became tumultuous and irregular, and it was soon easy to show all the signs of endocarditis, with mitral stenosis and insufficiency. Grave interference with the circulation occurred, and a general bronchitis supervened, which carried off the patient. The autopsy verified the diagnosis of endocarditis, which was found to extend as far as the aortic orifice. M. Desnos considered the endocarditis as evidently connected with the gonorrhoeal rheumatism.

When presenting the pathological specimens obtained from this patient to the *Société médicale des hôpitaux*, M. Desnos remarked that endocarditis might complicate gonorrhoea under two circumstances: either no articulation is involved, the endocarditis appearing alone in the course of the disease; or, as is much rarer, it is developed simultaneously with the gonorrhoeal rheumatism. M. Desnos has already observed a case of this. It is well to add also, that before the endocarditis had been manifested by the general symptoms, the heart had been carefully examined, on account of the persistence of the bronchitis, and had been found perfectly normal. There had been, besides, in the course of the rheumatism, two phenomena very characteristic of gonorrhoeal rheumatism: first, the localization of the disease in the sterno-clavicular articulation, and second, the absence of profuse sweating, except perhaps towards the end, when it could be

explained otherwise than by depending on the rheumatism.—*Journal de Médecine et de Chirurgie*. Dr. Murty has collected ten cases in which disease of the heart or pericardium has been developed within four or five weeks of the commencement of a gonorrhoea. (See *MEDICAL RECORD*, No. 353.) In eight of these cases gonorrhoeal rheumatism had preceded the cardiac complication.

**BALSAM OF GURJUN IN GONORRHOEA.**—Balsam of gurjun, or wood-oil, is an abundant product of some of the resinous trees of India, resembling copaiba in appearance, and said by some to exceed it in its specific effects. M. Vidal was the first to experiment with it in France, and he looks upon it as being possessed of such remarkable properties, that it will rapidly come into general favor. In India it has been used with success in the treatment of leprosy, and, in one case of this disease under the care of M. Vidal, good results have followed its administration. It is in the treatment of gonorrhoea, however, that the most brilliant results have been obtained, the time of treatment varying in seventeen cases from ten to twenty days, it being shorter in those cases in which it was begun after the inflammatory stage had passed. M. Vidal uses the following formula:

R.

Wood-oil,

Syrup.....āā 4 grammes.

Inf. aniseed..... 40 “

This draught was administered twice a day, at the beginning of meals. It is seldom necessary to exceed this dose, which is well tolerated, and of which the only effect on the intestinal track is the production of one or two stools within two hours after the meal; the maximum dose was eight grammes. At first, a certain amount of nausea is produced, but it passes off very rapidly. A quarter of a glass of wine administered after the potion renders it better tolerated. One of the advantages of the medicine is that there need be no change in the diet; wine was given during the whole treatment without producing any ill effects. Employed with the same care as copaiba, gurjun presents marked advantages. Its action is more rapid and certain, for it has frequently succeeded where copaiba has failed; it gives rise to no erythema; it gives no unpleasant odor to the breath or urine, which is one of the inconveniences of copaiba; locally, it succeeded well in vaginitis and balanitis; lastly, it costs less than copaiba.—*Journal de Médecine et de Chirurgie*, December, 1877.

**UNEQUAL LENGTH OF LOWER LIMBS.**—The equality in length of the opposite limbs has hitherto been but little questioned; but Dr. Jarvis Wight, of Brooklyn, made a series of sixty observations, which show that inequality of the lower limb is not only common, but the rule. Dr. Hamilton questioned the accuracy of these observations in one of his clinical lectures, and called forth in reply a paper read by Dr. Wight before the Kings County Medical Society. In this paper forty-two additional cases were recorded, giving results very similar to the first series. Some interesting measurements were given, which tended to show that differences existed both in the femora and the tibiae, and also in the humeri, but no extended number of observations have as yet been made in this direction. Combining these two series of cases, Dr. Wight found inequality in more than three-quarters of the number, varying from one-eighth inch to one inch, averaging one-quarter inch. This explains the great variation in the amount of shortening occurring after fracture of



the femur, for, if the longer femur be broken, the "natural inequality" must be subtracted from the actual shortening; or, if the shorter femur be affected, the "natural inequality" must be added to the actual shortening to give the "accidental inequality" of the limbs. This would also explain those rare cases in which the fractured femur is longer than its fellow. The fact that these latter cases are not more common than they are, Dr. Wight explains in the following manner: The average shortening after fracture is probably not affected by the natural inequality, for the shorter limb is presumably broken as frequently as the longer; this average shortening he places at five-eighths inch, and, of course, the natural inequality must be greater than this to give lengthening to the fractured femur, and this great inequality is so exceptional that he estimates the changes of lengthening as one in two hundred cases. The article concludes with a letter just received from Dr. Hamilton, from which the following is an extract: "I have done you and science an injustice, and I make haste to repair the wrong. Yesterday I, for the first, found time to verify, by actual observation, the correctness of your statement and that of Dr. W. C. Cox, of Philadelphia, that the femora of most adults are unequal in length. In a dozen or more measurements, made with great care by my house-surgeon and by myself, a large majority were found of unequal length, and the left limb was generally the longest. I propose to extend my observations and to give them more precision, but I have made enough to satisfy me that you are correct."—*Proceedings of the Medical Society of the County of Kings.*

**THE STRONG ELASTIC BANDAGE.**—The treatment of varicose and other chronic ulcers of the leg is so generally unsatisfactory, that any new method promising favorable results is to be hailed with delight. The latest novelty is the use of the strong elastic bandage, with which Dr. Henry Martin claims to have cured over six hundred cases without a single failure. The bandage is of "pure rubber," ten and a half feet long, three inches wide, and thickness of number twenty-one "Stubs' wire gauge." The length and breadth may vary with the size of the limb, but this is the most desirable thickness. It is applied by winding one turn just above the malleoli, then one around the instep and sole, then spirally up the leg to the knee, where it is fastened by tapes attached to the end of the bandage for that purpose. If it is desirable to apply it as far as the groin, a bandage eighteen to twenty feet long will be necessary. At night the bandage is removed and the ulcer protected by a piece of oiled linen, or some equally simple dressing. In the morning all traces of oil or cerates must be carefully removed, as fatty matters tend to injure the rubber, and the bandage should be reapplied before leaving the bed. It should be applied with just sufficient snugness to prevent it slipping down, and the increase of blood in the veins on standing will cause it to become of the exact degree of tightness. The bandage keeps the leg warm, moist, and air-tight, conditions most favorable to granulation and cicatrization, and in addition the gentle, even pressure so supports the distended and weakened vascular coats as to prevent that venous congestion so frequently the cause of the malnutrition of skin. For the first one or two weeks a papular eruption appears under the bandage, caused by obstruction to the cutaneous follicles. The bandage is their best treatment. In non-specific ulcers no other local treatment is necessary. The circulation of the limb is not stopped, but, owing to the

support given to the vessels, is facilitated; thus there need be no fear of causing œdema of the foot—on the contrary, the œdema which so constantly accompanies varicose ulcers is rapidly absorbed. The occurrence of œdema indicates the improper application of the bandage.

The use of this apparatus is not confined to the treatment of ulcers; injuries and diseases of the joints, especially of the knee and ankle, are equally benefited. In sprains, the strong elastic bandage wound around a joint affords a constantly present substitute, externally, for the disabled ligament. The constant pressure induces a rapid absorption of the exudation among the tissues about the seat of injury, and the gentle, equable warmth and moisture, which always accompany its application, have a most favorable effect in alleviating and preventing inflammation. In diseases of the joints marked by effusion, the application of the bandage after aspiration has been followed by complete success. In these cases the bandage should be applied day and night for six to eight weeks. Its use is also recommended in disease of bursæ mucosæ, œdema, erysipelas, and erythema, cutaneous affections, and as a radical cure for varicose veins; in the latter case it is supposed to act by causing adhesion of the walls of the vessels, and their consequent obliteration.

**CARBOLATE OF SODA IN THE TREATMENT OF NERVOUS AFFECTIONS OF THE RESPIRATORY PASSAGES.**—Dr. Pernot, of Lyons, has employed the raw carbolate of soda extensively during the past year, and regards it, when properly used, as a very valuable remedy in the treatment of the above-mentioned affections. It has two principal actions, viz.: it is disinfectant and antiseptic, and it exerts a modifying and curative influence on bronchial affections, and particularly on pertussis, for which it is almost a specific. He calls it raw carbolate of soda, because, in addition to the soda and carbolic acid, it contains many of the constituents of tar. When coal tar is distilled at a temperature of from 170° to 220° C., a heavy oil is obtained which contains forty per cent of phenol. On treating this with a solution of caustic soda a heavy brown liquid is thrown down, which is the carbolate of soda along with certain impurities derived from the tar. According to Dr. Pernot, all nervous and spasmodic affections of the bronchi—asthma, catarrh, influenza, and simple colds at the outset—are markedly influenced by the vapor of this raw carbolate of soda. On whooping-cough its action is most striking. He has found from numerous observations that after from two to ten days of treatment the paroxysms of coughing become much less frequent, less prolonged, and less severe, the vomiting diminishes or ceases, and the respiration becomes easier. He has never seen the symptoms become worse after his treatment was begun. The treatment consists in volatilizing the liquid by means of heat in the sick-room two or three times a day. About 3 x. of the liquid are placed in a porcelain vessel and exposed to the flame of an alcohol lamp. It volatilizes almost completely. The patient is allowed to breathe a purer atmosphere for two or three hours between each sitting, but a saucer containing some of the liquid is constantly kept under the bed. Dr. Pernot reports a few cases of pertussis and one of asthma, which illustrate well the action of the remedy, and certainly seem to justify all that he claims for it. Where a porcelain cup and an alcohol lamp cannot be got, a heated fire-brick may be used to volatilize the drug.—*Lyon Medical*, Sept. 23, 1877.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## COMMITMENT OF THE INSANE.

The proper method of committing lunatics to the asylum is just now the subject of some discussion. The interest which apparently centred in the Dickey case—in which a lady was alleged to be confined in an asylum for years, and without cause—has extended itself so as to involve a question of special legal enactment. The very case in point proves, however, that there is very little, if any, danger of being committed to an asylum without cause. As we have before remarked, the patient was undoubtedly insane, and by the generality of medical men would have been deemed a proper object for asylum treatment. This part of the case seems to be clear enough, notwithstanding the testimony to the contrary of two of the medical experts. The physicians who constituted the original commission were perfectly competent to examine such cases; both were gentlemen of large experience, and one had special facilities for the study of cases of insanity by an experience of several years as medical officer in an asylum. Their diagnosis was confirmed by the medical officers in charge of the asylum to which the patient was sent, and the treatment adopted was in all respects justifiable and orthodox.

It happened, however, that the question of money was intimately associated with the freedom of this patient, and on that account the case became one of judicial inquiry.

The verdict, although scarcely warranted even by the skilful adaptation of the scientific facts brought out in the trial, was nevertheless quite a natural one under the circumstances. A great deal of mystification was thrown upon the question of insanity by the counsel, and the jury simply gave the plaintiff the benefit of the doubt, especially as an endeavor was made to prove that the members of her family had a pecuniary interest in the committal.

That the same routine is not gone through with

other cases similar to the one in question, is perhaps so much better for them and for the State. We have no doubt that many such females are now in asylums, and are likely to remain there because they have no friends who may be pecuniarily interested in getting them out, or relatives who for the same motives are interested in keeping them there. But after all, is this a calamity? The very circumstances that a patient has sufficient money and plenty of friends to institute legal proceedings to obtain liberty, implies a capability for a careful guardianship afterwards. The latter was secured in this case. So far, then, as the money element is concerned, the evil corrects itself, and in a case where there was no money, the evil would not as such exist.

We might say, in passing, that the very appointment of a guardian so effectually stultifies the ruling of the court that the case, as a leading one, must certainly have a short life.

The real harm done in this case was the creation of distrust and alarm in the community concerning the methods of committing the insane, causing asylums to be looked upon as the veriest "mad-houses" of old times, and their medical officers as common jailers. Although the possibility of great wrongs in this direction may be allowed, their probability can hardly be entertained with sufficient seriousness to warrant any great concern, either from the people at large, the bench, or the legislature. The laws as they now stand are not perfect, but more is required in the direction of enforcing them than in creating new ones.

It is perfectly absurd to presume that there is no hope for a supposed lunatic when once under asylum influences. There are plenty of safeguards for such an unfortunate, be he rich or poor. The boards of inspection of our asylums, the States Charity Aid Association, and the Commissioner of Lunacy, all stand between the patient and the medical superintendent of any of the institutions for the insane. In regard to these privileges, the rich and the poor are on the same level. Cases of doubt do occasionally arise and are duly examined, but the rule is almost invariable that a decision is in favor of the asylum. Miss Dickey's case is a notable exception, but her discharge under the circumstances will hardly be an argument in favor of any change, except that which would necessitate the existence of a jury of experts for such trials. In fact, this is the only way in which a reform could be effected regarding the protection of persons committed to asylums. There would then be no chance of misunderstanding the true significance of the medical testimony offered on either side, and no reason to doubt the ability of the jury to draw just conclusions. If such a jury had tried the case in question there is but little doubt as to what the verdict would have been. Although the idea of a jury of experts is by no means new, it has recently gained in currency by the admirable paper of Dr. M. A. Pallen, on "Insanities in



Females."\* He made the suggestion that such a court or jury of experts should be formed for the trial of all cases of insanity. Although the plan suggested is good, it is not practical. We cannot suppose that every case of insanity is a doubtful one and needs such inquiry; and if it did, how could time be obtained or opportunity gained to look after the multitude of cases in our asylums? The truth is, we must allow that but a very small proportion of these cases are at all doubtful, and still fewer would demand more than the ordinary safeguards which are now already thrown around them. This is a broad statement, it is true, but one which is amply borne out by experience of medical men in our asylums. The present bill before the legislature contemplates such a provision; but so far as it has an application to every insane person in an asylum, just so far will it be impractical and defeat the real object for which it should become a law. Such reforms overreach themselves. Let us have a jury of experts, a lunacy commission, to pass judgment upon doubtful cases, but let their work be confined to such cases only. They will then not be overburdened, and all the requirements of ordinary justice will be met. The necessity for this jury is not only apparent in the case of Miss Dickey, but will be equally so in similar ones, the trial of which may be conducted in a like manner. The fact is, the jury under such circumstances cannot expect to obtain absolutely impartial expert testimony so long as such experts are retained by the respective parties in the suit. It is expecting too much of ordinary human nature to rule out the possibility of a mental bias in favor of the side represented. This may be expected of an ordinary witness, when it should never be entertained of an expert. Under the circumstances, the two situations are not convertible, or at least should not be.

#### THE CASE OF EX-SURGEON-GENERAL HAMMOND.

THE Committee on Military Affairs in Congress, to whom was referred the bill for the relief of Dr. William A. Hammond, late Surgeon-General of the Army, has made a favorable report thereon, and recommend its passage. This is a bill which provides that the President shall be authorized to review the proceedings of the court-martial convened by Special Order No. 24, War Department, A. G. O., Washington, D. C., January 16, 1864, and by which W. A. Hammond, then Surgeon-General of the Army, was tried, and to annul and set aside the finding and sentence of said court-martial, approved by the President, Aug. 18, 1864, if, after such review, the President shall deem it proper so to do. In the event of the latter, the bill further provides that the President shall be authorized to place Dr. Hammond's name on the retired list of the army as Surgeon-General without pay or allowances, past, present, or future.

The circumstances attending the trial of Dr. Hammond are still fresh in the minds of the profession of the country, and no detailed reference thereto is necessary. The impression at the time was, that the charges were made more for political than for other purposes, and the ability of substantiating them was very generally doubted. The very satisfactory manner in which the medical department of the army was managed, the many important reforms which were initiated by him, and their subsequent brilliant consummation, strengthened such an opinion. It was a matter then of general surprise that he should have been found guilty of the charges, and much more so that he should have received such a sentence. That such a view was fully justified, subsequent events now prove, for, after many years, when an appeal is made from the terrible verdict, the committee of Congress make this explicit and gratifying statement:

"A careful, unbiassed, and searching scrutiny of the evidence adduced upon the trial, as presented and reviewed by Dr. Hammond, as well as mature consideration of the argument of the distinguished counsel who represented Dr. Hammond on the occasion of his trial, forces irresistibly the conclusion that the gravamen of all the charges, save one, was either disproved by the defence, abandoned by the prosecution, or eliminated by the findings of the court. The single charge of which the gravamen was not found wanting by the court, was in itself trifling if not frivolous, and certainly insufficient in character and importance to arraign, try, convict, and pronounce sentence thereupon, in the manner and form as are in the records of the court-martial set forth."

The profession never believed that Dr. Hammond was guilty of corruption in office, or that he committed any offence which could have been considered, under the circumstances, as grave enough to merit his sentence. There were times when his authority overreached itself, when extraordinary measures had to be adopted, but these were generally justified by the exigencies of the situation. At the worst, however, they were errors of judgment which, although amenable to the strict letter of military discipline, were intended to be on the side of the sick and wounded soldier. Such an end would justify almost any means when backed by a conscientious appreciation of the responsibilities of the occasion. The profession has never been backward in giving credit to Dr. Hammond for such intentions, and in judging him accordingly. It is a matter of congratulation that the time has at length arrived when justice can be done him, and some amends can be made for the terrible disgrace under which he has so long suffered. The prompt passage of the bill, and its endorsement by the President, is the least that can be done to remedy a monstrous wrong to a man now proved to be innocent, and to correct one of the many blunders committed during the late war.

\* Some Suggestions with Regard to the Insanities of Females, by Montrose A. Fallén, M.D. *Amer. Journ. Obstet.*, April, 1877.

## MEDICAL CERTIFICATES IN THE DAILY PAPERS.

THE New York correspondents of some of the medical journals of the large cities here and abroad have devoted considerable space to the subject of medical certificates as connected with the advertisement of certain mineral waters. THE MEDICAL RECORD is very kindly mentioned as the means to the end of the withdrawal of the names in question. There is considerable difference of opinion as to the wisdom of the course which we pursued, and some exceptions taken to the arguments which we offered in favor of our position. Various reasons are also assigned for the stand taken, but none of the real ones are given. We are sorry so much misunderstanding exists upon the various points in this discussion, and take the opportunity of correcting it. We do not care to claim any particular credit for the result attained, and only mention it in connection with the RECORD as showing that, after all, we were on the right side and correctly interpreted professional opinion. We rebuked the practice of publishing or allowing these certificates to be published in the daily papers, claiming that it was undignified, unprofessional, and in direct violation of the spirit of the Code of Ethics. At first we stood alone; the County Medical Society was without the necessary machinery to carry on any work of reform, and there was no tribunal before which the matter could be legitimately brought. The New York Academy of Medicine waited for the County Society, and the latter waited for the Academy. In the meantime the advertising was going on, and many openly declared that the Code was virtually a dead letter, as there was no power to enforce it. Still, the RECORD kept up its protests, asked for the withdrawal of the names, and demanded, in the name of the profession, that a Committee of Ethics should be formed in the County Society, and that the whole matter of medical certificates should be brought before it. The formation of the committee followed, and then its report recommending the withdrawal of the names. In the meantime the gentlemen who had given the certificates took active measures in the matter, and their names disappeared from the advertisement. When the Committee on Ethics next reported through the Comitia, although the names were no longer attached to the advertisements in question, the practice was formally condemned, and the request made that the gentlemen whose names had appeared should officially notify the Committee of their withdrawal. The report was adopted at a full meeting and without a dissenting voice. Due notification of the withdrawal of the names has now been made, and thus the matter has ended. Now if, as some of the correspondents declare, this was all unnecessary, we were wrong from the beginning, the Society was wrong throughout the whole affair, and the gentlemen who wrote the certificates were wrong, not only in heeding the demands, but in acknowledging their error in an official manner. In any event, we do not believe that

any respectable medical gentlemen can be found, in this city, at least, who would be willing to run the risk of writing medical certificates for publication in the daily papers.

## THE CORONERS' BILL.

DR. ISAAC I. HAYES' bill, relating to coroners in this city, has passed the State Assembly and now awaits the action of the Senate. It provides that each coroner shall receive a salary of five thousand dollars per annum in lieu of all fees or compensation. Provision is made for *post-mortem* examinations. When an autopsy is to be made the coroner shall subpoena only one physician to make it. No jury shall be summoned unless the physician shall deem it necessary. The Board of Coroners shall, within five days after the passage of the Act, appoint four physicians, residents of New York, to be called upon for *post-mortem* examinations and medico-legal investigations. The Board of Estimate and Apportionment shall fix the pay of the physicians, but the pay of each shall not exceed three thousand dollars per annum.

In this shape the bill is shorn of most of its purely political elements, which is so much of a recommendation for it. At present the office of coroner is one the pay of which is out of all proportion to the services rendered, and it is time that some change should be made in cutting down the enormous fees.

The salary proposed in the new bill is quite reasonable, but is still sufficient to command the services of good men in all the departments. Each coroner is allowed two thousand dollars extra for office and clerk hire, which is more than sufficient to meet all his probable demands in those quarters; but this is one of those compromises with the evils of our political system which it is impossible to avoid on any work of reform. The amendment appropriating three thousand five hundred dollars for a general clerk is absolutely unnecessary, in fact, is a palpable attempt to create a sinecure for political purposes. But there is no doubt that this portion of the bill will be defeated in the Senate. On the whole, then, the bill is a good one, and is calculated to correct many of the gross abuses connected with the office of coroner.

## PRIZE ESSAYS.

THE Prize Committee of the Alumni Association of the College of Physicians and Surgeons, in its present annual report, declined to award the prize to any of the competitors, giving as an excuse therefor, that neither one of the three essays presented was up to that standard of excellence it was the intention of the college to establish. The amount set apart for the purpose was two hundred dollars. From the foregoing facts it is safe to conclude either that the judgment of the Committee is at fault, or that there is not enough of inducement on the part of our best men



to write such essays as may be considered worthy of the reward. The former is by no means so probable as the latter.

There are many faults connected with the Prize Committee system which might explain this in a measure, but when the ground is taken that none of the theses come up to a given standard, there is a significance about the position which must not be lost sight of. That there is not a sufficient incentive on the part of the able men to compete for these prizes is quite evident, if for no other reason than that only three out of the large number of alumni of this college entered the lists. We think, then, that Dr. W. C. Livingston touched the key-note of reform and progress when he moved to increase the prize-fund so that an annual income of five hundred dollars might be secured as a reward for the successful competitor. We have no doubt that this will effect the object for which it is intended. Dr. Livingston very pertinently remarked that such a prize would stimulate the older men to work, men whose time was more valuable than that of fresh graduates, and who could give the results of their experience and researches rather than anticipate such by blind theorizing or useless and impracticable experimentation. Then again, the prize being a large one, and the competition being proportionably active, the honor of being the winner is correspondingly great, and independent even of the pecuniary consideration, will be calculated to stimulate first-class talent.

## Reviews and Notices of Books.

A TREATISE ON THE PATHOLOGY OF THE URINE. By J. L. W. THUDICHUM, M.D. 2d edition. Philadelphia: Lindsay & Blakiston. 1877.

It is nearly twenty years since the first edition of this work earned for its writer a distinguished position among the urinologists of the world. Of late years, though still holding an honored place, its usefulness has been supplemented by the more recent works of German and other English authors. This second edition, therefore, will be examined with interest by all who are interested in its subject-matter. Those familiar with the author's later labors, more especially the ones that have seen the light in the "Reports to the Medical Officer of the Privy Council," are fully aware of the industry and originality that characterize them. These qualities, then, we have a right to expect in the volume before us, and upon consulting its pages we are not disappointed.

After discussing the general characters of the urine, the author considers first its organic ingredients, as urea, kreatine, uric and other organic acids, coloring matters, etc., to the number of twenty or more. The inorganic acids next claim attention, followed by alkalies and alkaline earths, and iron. Then come the substances that appear as abnormal constituents of the urine in consequence of disease. Succeeding these are several chapters devoted to the consideration of various medicinal and other substances, which after ingestion appear in the urine, with methods for their

detection and analysis. The whole concludes with a scheme for the systematic analysis of the urine and of urinary calculi.

While the work on the whole is a wonderful collection of useful information—in fact, the most complete in existence on the subject which it treats—there are certain omissions that impair its value to the practitioner. The most important of these is in connection with the quantitative determination of urea. Liebig's method is alone given. This method, when practised with the modifications and corrections rendered necessary under varied circumstances, is doubtless capable of yielding very correct results in the hands of a skilled chemist like the author; but for ordinary clinical purposes in the hands of a physician, the method, when practised with ordinary precaution, is troublesome, and too often deceptive and unreliable. The more convenient gaso-volumetric and gaso-gravimetric methods devised of late years yield much more accurate results in ordinary hands. The author's *penchant* for the invention of new terms and long words has been fully indulged, though not to the extent met with in some of his other writings.

The microscopical features of the urine receive scanty attention.

## Reports of Societies.

### NEW YORK STATE MEDICAL SOCIETY.

*Adjourned Meeting, held in Albany, January 15, 16, 17, 1878.*

VICE-PRESIDENT, DR. A. L. SAUNDERS, IN THE CHAIR.

#### LACERATION OF THE CERVIX UTERI AS A FACTOR IN CERTAIN UTERINE DISEASES.

DR. WALTER B. CHASE, of Windham, Greene Co., read a paper upon the above subject and reported illustrative cases. The position taken by Dr. Chase was, substantially, that laceration of the cervix uteri occurred rather frequently; that it was a condition quite frequently overlooked; and that it was a condition which, when complicating displacement of the uterus, would not recover spontaneously. Operative procedure, therefore, became a necessity.

The paper gave rise to discussion, which was participated in by Drs. Fordyce Barker, H. T. Hanks, and A. Jacobi, as follows:

DR. FORDYCE BARKER, of New York.—Mr. President: I think there can be no doubt that the paper first read by Dr. Emmet, of New York, upon lacerations of the cervix uteri associated with the puerperal state, is one of the most important contributions which has been made to gynecology.

I remember well, when I heard the paper read before the Medical Society of the County of New York, that I listened to it with great interest, and I must say, also, with great surprise. The characteristic pathological phenomena attending this condition I recognized clearly and distinctly, but having seen it in only a few cases, I was surprised because of the enormous number of cases which Dr. Emmet reported as having himself seen.

Soon after I read some statistics given by Dr. H. T. Hanks, of New York, of cases which he had seen in the Demilt Dispensary. Again I was not able to explain, satisfactorily to my own mind, why this gentleman should have seen such a large number of cases, infir-

nately larger than I had seen in all my life, and that I should have seen so few cases in a similar class of practice.

I subsequently saw a patient with Dr. Emmet, and in that case he demonstrated the accuracy of his description of this class of cases. The patient had a large cervix uteri, one which measured two and a half inches in diameter. It was evidently everted, and the uterus measured between five and six inches in depth.

In pushing up the uterus, or rather pushing up the everted cervix, the size of the cervix diminished fully one-half.

Subsequently, Dr. Emmet operated upon this cervix in the manner he had described, and I was again given the opportunity to measure, and found that the uterus had diminished in depth to about two inches and seven-tenths.

Now, this was a complete demonstration of the accuracy of his description and the correctness of his pathological view.

It then remained to me to account to myself for the fact that I had seen so few cases.

For several years I have been constantly watching for such cases, and in that period of time I have seen, as cases which have first come under my own observation, only two. What is the explanation of this fact? I will give the explanation which I believe is true, and which I think has an important practical bearing.

My experience has been confined mostly to treating women who have had excellent obstetrical attendants during confinement; who have been in good circumstances in life, and had everything at their command which could favor complete restoration from the puerperal period. This has been my experience, with the exception of twenty-three years' service in Bellevue Hospital, where, of course, I attended obstetrically a large number of poor persons, who left the hospital after the puerperal period had passed, and who, having good attendance and rest in the hospital, complete involution was generally secured.

The question, then, arises, does subinvolution prevent cicatrization of the laceration, or is the laceration the primary condition and that which prevents involution of the uterus?

My own conviction is, that it is a pathological condition almost never found in patients who have proper obstetrical attendance, or who have been in circumstances in life which permitted them to secure proper hygienic and medical treatment to effect proper involution of the organ.

This view explains why it is that Dr. Emmet, who sees patients coming from all parts of the United States, most of whom had no medical attendance during the puerperal period, and also why it is that Dr. Hanks, who sees these cases in the Dispensary, say that they are of very frequent occurrence. It may be said in answer to this, that when the laceration is closed by the operation, involution is completed and the uterus restored to its normal size.

I accept that; but I do not consider that it in any way invalidates my theory. That laceration of the cervix takes place very frequently in parturition, I am sure every obstetrician will agree. I believe it is also true that the laceration heals spontaneously in a large proportion of cases, and I think that the appearance of cervix uteri of women who have borne children, in the most of whom cicatricial evidences of former lacerations are found, is a perfect demonstration of the truthfulness of this position.

In a vast majority of cases they get well without an operation. But there is a class of patients who are

surrounded by such circumstances as will not permit such spontaneous recovery to take place; they are poor, and their circumstances compel them to rise from their confinements too early; and in a few others, who are not poor and have good medical attendance during the puerperal period, they suffer from pelvic irritation of various kinds, such as pelvic peritonitis, pelvic cellulitis, etc., etc. The effect of all these influences is to prevent union of the lacerated surfaces.

The experience of Dr. Emmet is, that these lacerations are found much more frequent upon the left than upon the right side of the cervix.

The explanation for that is, that left occipito positions occur much more frequently than right; in the proportion of about seven out of ten times the vertex presents.

It occasionally happens that a double laceration is produced, and this may result from some peculiar condition affecting the process of parturition.

Now while I fully agree that a certain class of these cases should be treated, I am compelled to take a position somewhat at issue with the author of the paper when he expresses the opinion that these cases never get well without the performance of a surgical operation.

I believe that some of them may get well without such procedure.

Formerly, that is, before Dr. Emmet read his paper, I used to see cases which were supposed to be granular inflammation, ulceration, or abrasion of the cervix, with enlargement of the uterus, and my experience was, and so it was of a great many others I am sure, that after the application of local treatment to the cervix the size of the uterus was diminished, the appearance of ulceration disappeared, the leucorrhœa stopped, the pelvic pains were relieved, and for a time at least the patient was cured. But in a few weeks some of these patients would return, and upon examination they would be found to be just as bad as ever. In some cases, however, I did succeed in effecting a cure—a complete involution of the organ and restoration of the ulcerated tissue—by placing the woman in a recumbent posture for two or three weeks and making occasional applications of the actual cautery.

Now, the fact that some such cases as these can be cured without a surgical operation is important, because the operation always requires confinement of the patient, and some of them will not consent at all to it. In such cases my method of treatment would be as follows:

In the first place I require the patients to keep the recumbent posture, to use vaginal injections of hot water twice a day, using a gallon or two of water at a temperature of 100°, 101°, 102°, or 103° F., according as they can bear, and besides, put them upon constitutional treatment, by way of the use of the tincture of the chloride of iron, Squibb's fluid extract of ergot, and nux vomica, to promote involution.

The object is to so improve the general condition of the patient as to effect contraction of the muscular fibres of the uterus and restore the deficiency of nerve-force to the patient.

In the course of three or four weeks the uterus—for I now am speaking of a particular case—was reduced in depth from four and three-quarter inches to three and one-eighth inches. The patient was then permitted to be up and about, at the same time wearing a cotton tampon dipped in a saturated solution of tannic acid in water.

I may remark in passing, that I think it is a mistake very frequently committed, to make for this purpose a solution of tannin in glycerine. For glycerine pro-



duces a discharge from the mucous membrane which counteracts entirely the action of the tannin.

From day to day, as I introduced the tampon, I was able to see its size regularly diminished, and after a time the woman was able to dispense with it entirely. This patient has not required treatment since.

Of course, in the class of subjects in which we meet with this affection most frequently, where the disease has resulted from inability on the part of the patient to secure competent obstetrical treatment, or to take proper care of herself during the puerperal period, we have this measure suggested by Dr. Emmet.

I think in these cases it is also important to obtain a complete understanding of the history of the patient.

In the cases which have been published, as yet, there has been no report upon the puerperal condition of the patient during the time when this pathological condition was developed. Such history is very important, and is necessary to establish the truth or prove the error of those conditions I have suggested.

In conclusion, I would simply say that the truth is, that a condition which prevents involution during the puerperal period also prevents cicatrization of lacerated tissues; that the same cause of the lacerated tissues contributes to prevent subsequently any cure of those phenomena due to increased weight of the uterus, and such as reflex pelvic pains, leucorrhœa, displacement from increased weight, and failure of normal support.

I would not say that laceration causes subinvolution, nor that subinvolution prevents the healing of the laceration; but that both are the result of a common cause.

I would ask gentlemen who may meet with these cases to obtain, as fully as possible, the history of the patient during her puerperal period, and my strong conviction is, that it will be found that there is some inflammation of the pelvic organs that prevented involution, or some improper hygienic influence, and that, therefore, the two conditions are a common result of this cause, and do not bear the relation to each other of cause and effect.

DR. H. T. HANKS, of New York.—Mr. President: I am interested in the paper that has just been read by Dr. Chase, for two reasons: First, because the author of the paper is known to me as a careful observer and a judicious operator. Second, the lesion of which he treats is one which has engaged my attention very constantly for the past five years; having observed a large number of cases, and frequently operated, and as frequently witnessed operations for the same by Drs. Emmet, Peaslee, Thomas, and Lusk.

The general practitioner of to-day does not fully realize, and fails to trace back to their true cause, the serious results which follow as a necessary consequence this accident. As Dr. Barker has remarked, it is but a few years since Dr. Emmet first called the attention of the profession in New York City to the pathological condition and treatment of the lesion.

Those who have listened to or read the two papers which Dr. Emmet has written upon the subject, willingly accord to him the honor of first describing this condition, and suggesting an operation for its relief, since which time hundreds of sufferers from laceration of the cervix in New York City have been relieved. Without doubt the operation has been performed sometimes unnecessarily by some gynecologists, as there are those who would readily account in their own minds for all the evils that flesh is heir to, by a slight laceration of the cervix uteri. It is equally certain that the necessity for an operation is often overlooked by the general practitioner.

Respecting the frequency of the lesion to which Dr. Barker has referred, the statistics which I gave at the time of Dr. Emmet's first paper, were confirmed at the time of his second paper by the statistics of Dr. Mundé, furnished from another and similar charitable institution.

There are three palpable reasons for the greater frequency of this accident among the poorer classes than among those in good circumstances. The first reason will be apparent when I state that I know three physicians in New York City who attend between three and four hundred cases of labor in a year. These must necessarily hasten the labor or apply forceps before complete dilatation has taken place, and, of course, often to the detriment of the mother.

2d. The sexual relations of the poorer classes are not so cleanly nor so healthy as prevail among intelligent and well-to-do people. An erosion or abrasion of the cervix previous to pregnancy may be allowed to go on until full term, at which time the cervix is not elastic nor normal, but congested, friable, and easily lacerated. Again, a woman may have gonorrhœa during pregnancy, and in such case I do not believe that it is possible for her to have a child without producing more or less laceration of the cervix.

3d. Among those in good circumstances, the patient is usually kept in bed for a fortnight after a hard labor; good nursing is the rule, not the exception; vaginal injections are frequently resorted to; and involution will take place quite satisfactorily, even though there had been a slight laceration. On the other hand, among the poorer classes, from necessity or ignorance, the patient is usually out of bed by the third or fifth day, whether the labor has been easy or difficult—long before involution can have been accomplished or any restoration of the laceration can have begun.

But this condition is still found among those whom we would suppose should have had the best care and attention, and is the cause of much pain and distress which can be accounted for by no other reason.

It was only this week that a lady, who had been attended by an excellent accoucheur, consulted me for profuse menorrhagia, exhausting leucorrhœa, and long-continued distressing backache. I found, on examination, the uterus prolapsed to second degree, measuring three and a half inches, and sharply retroflected; a bilateral laceration of the cervix to the vaginal junction, with hypertrophied, red, eroded, and everted edges.

These symptoms had been present since the birth of the last child, one year previous. The only satisfactory explanation of this pathological condition of the uterus is, that the laceration took place at the birth of the last child; proper involution did not follow; the uterus remained heavy; the ligaments continued relaxed, and the fundus fell backward and downward.

The menorrhagia resulted from the congested and increased surface of the mucous membrane; the leucorrhœa from the congested, eroded, and lacerated cervix; the backache from the stretched ligaments.

I believe it is our duty to study for the prevention of this laceration as much as its treatment. We cannot be too judicious in refusing to hasten labor before the cervix is dilated.

When unavoidable laceration, to our knowledge, has taken place, we can avert many serious results by keeping the patient in a prone position for a portion of the time. Frequent vaginal injections of carbolyzed warm water should be used. The patient should be

kept in the horizontal position for from two to four weeks, or until involution has fully taken place.

Dr. A. JACOB, of New York.—I believe I am one of those who are expected to have nothing to say upon this special subject, because I am but one of the general practitioners who have assembled here. We are, most of us here, general practitioners, and the important question is to be decided whether every case of lacerated cervix, as the paper under discussion appears to indicate, should go into the hands of specialists? It is as a general practitioner that I mean to say a few words. Now, my friend Dr. Hanks has said "I believe" a number of times during his short speech. I shall try not to use those words a single time. Imagine, for instance, that you have to deal with some kind of wound, say an open wound in the angle of the mouth—what will become of that wound? If it is kept clean, it will heal in a brief space of time. But imagine that you have to deal with such a wound in the mouth of a tobacco-chewer, or in the mouth of a diphtheritic patient, or in a child suffering from stomatitis—what will become of it? Within two or three days we shall see an ugly-looking sore; there will be swelling in consequence of increased cell-growth and exudation from the blood-vessels; as a result of absorption by the lymph-vessels, there will be swelling of the cheek and the neighboring glands, and the wound does not heal. It may cicatrize spontaneously within from two to six months, and when it has closed a large portion of the swelling of the cheek will, it is true, disappear, a large amount of the glandular swelling will subside, but a certain portion may never disappear.

This is the case, because we know that in the course of time the hypertrophy of the glands and the newly formed connective tissue will not be reabsorbed.

When we cut through such an enlarged gland, we find that it is simply a mass of indurated connective tissue that will remain permanent.

This condition has been developed because the wound was not kept clean from the beginning; it had no chance to heal.

Every such wound or erosion will follow the same course, because it is governed by the same physiological and pathological laws. Almost every woman who bears children has one laceration of the cervix uteri. Most of these lacerations heal, and the uterus is again perfectly healthy.

But, imagine that the woman does not keep the vagina and cervix clean when in the puerperal condition; the discharge from the uterus and vagina will keep such a laceration from healing.

When it does heal, if it does, it is an innocent affair, unless the wound has extended into the peritoneum.

If it does not heal, why not? It does not heal so long as there is the slightest external irritation. When it does not heal, the result is swelling of the parts adjacent; there is metritis; also enlarged uterine and parametritis in a great many cases, and it is for the same reason that there is glandular and connective-tissue enlargement in the neighborhood of the ear when there is an unhealed fissure at the angle of the mouth.

What can an operation for cure of the laceration do in such cases? It will remove the ulcerated surface; that is good. It will heal the lacerated cervix; that is good. But if the uterus is increased in size in consequence of the erosion or ulceration, and a great deal of new connective tissue is formed, the glands suppressed and compressed, and uterine catarrh once established, neither the uterine enlargement nor the

uterine catarrh will ever get well, no matter whether the laceration is closed or not, unless they are treated and cured separately. It is true that an always new source of inflammation, and an always new source of catarrh is suppressed; and Dr. Emmet, who has first proposed and performed the operation for lacerated cervix, a good observer and successful operator, never appeared to me to obtain more than that.

If the woman keeps the vagina and uterus clean after confinement by having two, three, or four daily injections of simple warm water applied until the lochial discharges cease, it is probable that every laceration, unless it enters the peritoneum, will heal; in the presence of blood and pus it will not heal.

Take, as a further illustration, a common nasal catarrh, which lasts eight to fourteen days and then gets well. But imagine that there are, other exposures and new irritation of the surface. In that case, the nasal catarrh may never get well, because new connective tissue is formed, the little glands in the mucous membrane and the membrane itself become swollen, and their enlargement is permanent. If recovery is to take place in nasal catarrh, absolute cleanliness must be maintained.

These little glandular enlargements will never be removed unless the nasal passages are cleansed three, four, five, six times a day with injections of water, and this procedure is kept up for three or four weeks for the purpose of absolute cleanliness. I have not seen chronic nasal catarrh get well under the influence of any merely medicinal applications, or operative proceedings, least of all with strong applications of nitrate of silver; but I have seen it get well by the use of the very mildest applications, and by securing permanent cleanliness, and nothing else.

May not something else be done with regard to the laceration besides the bloody operation, which is very apt to fail at the hands of the inexperienced? For I have operated once for lacerated cervix uteri, and I feel that it may satisfy the exclusive gynecologists to learn that my operation was a failure.

I have not operated since, but I know I have cured a number of this class of cases.

My experience coincides with that given by Dr. Barker in regard to general treatment. The actual cautery I have used a great deal in the treatment of these cases when there is considerable swelling and thickening of the tissues. It will not only destroy the cicatricial surface, but enliven, on general principles, the adjoining circulation, and thus gradually restore the wound. Perhaps I may be permitted to state in this connection, that I was the first to introduce the galvano-caustic into the cavity of the uterus; it was some ten or twelve years ago, and for the purpose of destroying the constantly bleeding remains of a placenta.

Thus I claim, that if anything can be done for the results of laceration of the uterus, the actual cautery will probably do as much as will the bloody operation. When this is performed very late, I claim that under ordinary circumstances the uterus will remain as large as it is before the operation is performed, and that the actual cautery will have a better success, as far as the removal of secondary enlargement is concerned; for it is the principal object of treatment to remove the source of the irritation and to favorably influence the nutrition of the neighboring parts.

This latter result can be obtained in those cases also where there is uterine catarrh with "metritis" or subinvolution, although there be no laceration of the cervix. Many cases where it is present will not be re-



lieved by the bloody operation. Many, where it is and where it is not, will be relieved by the actual cautery.

Excuse me, Mr. President, for consuming so much time; but I thought I would make these remarks, believing as I do that the condition referred to should be treated upon general principles, just as anything else should be.

Every general practitioner should be a sufficient physiologist and pathologist not to take for granted any results without scrutinizing them; and fortunately there are many means to accomplish the same object under different circumstances, as there are "many roads that lead to Rome."

## NEW YORK MEDICAL JOURNAL ASSOCIATION.

*Stated Meeting, Feb. 15, 1878.*

DR. MATTHEW D. MANN, PRESIDENT PRO TEM., IN THE CHAIR.

### ON THE USE OF HOT MUSTARD-BATHS IN PNEUMONIA IN CHILDREN.

DR. LEONARD WEBER read a paper upon the above subject, in which, after referring to several forms of treatment that had been recommended, he presented the claims of the hot mustard-bath in the treatment of pneumonia occurring in children. He first learned of that therapeutical agent in 1869. The history of several cases was related in which the disease had occurred in children from four to six months of age; they were regarded as cases of capillary bronchitis and pneumonia; the symptoms were extremely urgent. For instance, in one case the respirations were 72, the pulse 150, and the temperature 103° F., together with marked cyanosis and great restlessness. The baths were used after all other remedies had failed to afford any relief, and the child made a good recovery.

#### THEORY REGARDING THEIR MODE OF ACTION.

There were two agents in the baths, both of which acted upon the surface:

1. The mustard, which was an irritant to the skin; and,
2. The hot water, which dilated the cutaneous capillaries, thus assisting to increase the quantity of blood thrown to the surface of the body.

The increased blood-supply to the surface relieved in a great measure the congested pulmonary circulation and the overloaded heart.

The baths stimulated the nervous system and also favored the interchange of gases in the blood through the skin.

#### ADVANTAGES CLAIMED FOR THE BATH.

It was easily prepared; the materials could be readily procured; its action was prompt; there was no danger in applying it.

#### METHOD OF PREPARING AND USING THE BATH.

The bath was prepared by adding half a pound or a pound of ground mustard to a baby-tub of water, having a temperature ranging from 100° to 105° F. The child was placed in the bath, and, while there, the surface was to be thoroughly rubbed until the skin began to look red, usually from seven to ten minutes, then taken out, wiped dry, and put into a bed previously warmed. No ill effects had been seen by allowing the genitals to remain unprotected. The bath might be repeated as often as every three hours.

In conclusion, Dr. Weber questioned whether the antiphlogistic treatment of pneumonia by the use of cold baths, cold packs, etc., was a method that could be followed with advantage in this country.

DR. WILLIAMS remarked that he had seen fifteen cases of pneumonia treated by means of cold baths and packs, with the administration of whiskey before and after the bath, and the use of a full amount of nourishment. There were only two recoveries, and those patients doubtless would have recovered without any special treatment.

DR. MANN reported a case in which he thought the life of the child was nearly sacrificed by the use of the cold pack. The child was five years of age, and the temperature was most pleasantly and satisfactorily reduced by the use of ten-grain doses of salicylic acid.

DR. WEIR had had some experience in the use of cold affusions in the treatment of pneumonia occurring in children, but the results were very unfavorable; most of the children so treated died.

DR. HUBBARD spoke very favorably of the use of carbonate of ammonia in the treatment of pneumonia. His method of administration was in accordance with a suggestion made by Dr. H. P. Farnham—namely, as an effervescing mixture with citric acid.

A vote of thanks was extended to Dr. Weber for his paper, and the Association adjourned.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Feb. 24, 1877, to March 2, 1878.*

ALEXANDER, C. T., Major and Surgeon. Relieved from duty in Dept. of the Columbia, to proceed to St. Louis, Missouri, and report thence by letter to the Surgeon-General. S. O. 38, A. G. O., February 21, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 2, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| Feb. 23, 1878.... | 0             | 7              | 75             | 5                          | 130      | 61          | 0          |
| March 2, 1878.... | 0             | 4              | 91             | 5                          | 98       | 52          | 0          |

NEW YORK COLLEGE OF VETERINARY SURGEONS.—The first annual commencement of this college, under the new régime, took place at Trenor Hall, on the evening of March 2d. After the conferring the degree of D.V.S. upon the graduates, the valedictory was pronounced by Mr. Walton, when Prof. Hammond was introduced, and delivered an address upon "Equine Psychology"—freely translated as horse sense. He commenced by observing that the horse was distinguished among domestic animals for docility and penetrating intelligence. Besides the fact that the equine brain was remarkable for the depth and number of its convolutions, its weight as compared

with the body was comparatively superior. The proportion of brain to body in the horse was 1 to 580; in the ox, 1 to 805. He regarded the horse as the most intelligent of the solipeds, and related numerous anecdotes illustrative of this view, drawing the conclusion that the intelligence of the animal differed only in degree (not in kind) from that of man. Passing to the interesting question of language, he observed that the nightingale produced forty different articulate sounds, and that there was no rational doubt that animals were able to convey very specific ideas to each other by means of sounds. He concluded with some remarks to the graduating class.

**THE LATE DR. E. R. PEASLEE.**—At a meeting of the New York Pathological Society, the following preamble and resolutions were adopted:

*Whereas*, It has pleased our Heavenly Father to remove from us by death our distinguished associate, Edmund R. Peaslee, M.D., LL.D., we would hereby express our sincere grief for the loss which we have been called upon to bear, and also record our profound esteem and admiration for his noble deeds and Christian character; and we hereby

*Resolve*, That in the life, labors, and character of Dr. Peaslee we have a commendable example of industry, usefulness, and Christian manliness, seldom combined in a single life.

*Resolved*, In the death of Dr. Peaslee the medical profession and society in general have sustained an unusual loss.

*Resolved*, That we tender to the family of Dr. Peaslee our sincere sympathy in their irreparable loss.

*Resolved*, That the above be published in the medical journals of this city, and also that a copy be sent to the family of the deceased.

JOHN H. HINTON,  
JAMES L. BANKS,  
CHAS. E. BRIDDON,  
*Committee.*

**ALUMNI ASSOCIATION, COLLEGE OF PHYSICIANS AND SURGEONS.**—The committee appointed to nominate officers for the ensuing year made the following report: For President, Dr. William H. Draper, of New York; for Vice-President, Dr. Alexander N. Dougherty, of Newark, N. J.; for Secretary, Dr. Charles Hitchcock, of New York; for Assistant Secretary, Dr. J. N. Bertram, of New York. The report was adopted, and the officers elected. The Board of Councillors, fifty-seven in number, stands the same as last year, with but few exceptions. After the adoption of a vote of thanks to Dr. Bayles, the retiring Secretary, the meeting adjourned. The annual dinner took place at Delmonico's, Wednesday evening, March 6th.

**MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.**—At a stated meeting, held Feb. 25, 1878, Dr. J. C. Davis read a paper on "Abscess of the Liver." It was maintained that heat did not necessarily indicate the occurrence of abscess of the liver, but that it depended rather upon dryness and moisture, customs of the people, non-observance of hygienic laws, etc. Abscess of the liver was divided into two varieties: 1. That brought about by inflammation of high grade, associated with tropical dyscrasia. 2. That due to thrombosis and embolism. Ulcerations in the intestines were regarded as one of the prominent causes. Theoretically, the explorative puncture was dangerous, but practically, it was not. Treatment by use of the trocar was advocated. Dr. Judson's field of observation had been in Mexico.

"The School of Salernum" was the title of a paper

read by Dr. H. E. Handerson. It was an historical sketch of the rise, progress, and fall of that institution of learning.

Dr. A. Jacom brought before the Society the subject of making a *Catalogue of the National Medical Library*, and introduced a resolution making provisions for the appointment of a committee of twenty-five, which should urge upon Congress the propriety of making an appropriation for that purpose.

Dr. O'SULLIVAN reported that the Committee on Ethics had been officially notified that all the members of the Society who had given certificates regarding the value of certain mineral waters had withdrawn their names from such recommendations.

**UNIVERSITY OF UPSALA.**—The King of Sweden has made the University of Upsala a donation of 40,000 crowns, the yearly revenue from which is to be distributed as premiums to young authors of scientific works.

**BELLEVEUE HOSPITAL MEDICAL COLLEGE.**—The Seventeenth Annual Commencement of this institution was held at the Academy of Music, Thursday, February 28th, at 3 o'clock. The degree of Doctor of Medicine was conferred upon one hundred and thirty graduates.

Lieut.-Gov. Dorsheimer addressed the graduates. He remarked that there was but little reason for the selection of such a speaker to a class of young physicians, except that men in his position were called upon to speak on all subjects at all times. Lawyers, he said, did most of the public speaking nowadays. In former times, among the primitive men, one man exercised the offices of physician, clergyman, and lawyer. Afterwards they separated, the priest first, and, finally, the lawyer. If this order was in accordance with the Darwinian theory, it suggested a process of evolution to which further reference at that time might be considered discourteous. [Laughter.] He thought that modern science began with Bacon—a lawyer. For, although Columbus, Galileo, and, indeed, all discoverers, had worked upon the Baconian method, it was he that first announced the law, first showed that it was immutable, and applicable to all departments of thought and inquiry. The Baconian law might be familiarly stated to be this: Study the facts, and go to the conclusion which the facts establish. This simple axiom had changed the whole method of scientific investigation, and had become the rule of what was known as the experimental system of philosophy. He drew a picture of the state of Europe in the days of Bacon, and said: "Dreary superstition brooded over all—over the Church, the Court-house, and the sick-room. In medicine it was held by some that the blood alone gave warmth to the body; by others that it was a humor and the nursery of disease, and the universal nostrum was to get rid of the foul fluid by bleeding the patient. The King's evil was cured by the touch of a royal hand. The epileptics were bewitched, and the insane possessed of the devil. The duration of life was predicted by the stars. Whooping-cough was cured by persuading a dog to eat a hair of the child, and hydrophobia was cured by making the child eat a hair of the dog. There is no department of science which has taken more benefit from Bacon's teaching than yours. Medical science may be said to have begun then. The first application of Bacon's teaching was made by an English physician, William Harvey, who, eight years after the publication of the *Novum Organum*, printed a treatise demonstrating the circulation of the blood. This treatise is an example of the Baconian methods. Bacon himself



could not have demonstrated a fact in physics more strictly in accordance with his own methods." The speaker alluded to the discoveries of vaccination and anesthetics, and asserted that there was a close bond of sympathy between the medical and legal professions. In conclusion he said: "I have held up to you great examples, not because I think that each of you should seek to equal them. But it ennoble the humblest man, however obscure his life may be, to think that where he walks others have found greatness. There lies before every one of you a work which will demand all the skill and wisdom you can acquire, all the courage and charity with which the lessons of the past can inspire you. You will often need to compose prescriptions more subtle than those you send to the apothecary: to 'minister to minds diseased;' speak the last counsel to ears already dull. Sometimes it will fall to you to gather up and weave together the ties of family, by passion or the treacherous hand of slander torn asunder, and often at the bedside of the dying to bind up the wounds of the living. Within the sacred realm of sorrow you will be what they were in the olden time—physician, lawyer, and priest. At the threshold of your career we all salute you with the wish that you may prove equal to its great demands."

The valedictory was delivered by Lewis C. Wagner, M.D., of the graduating class.

**THE AMERICAN VETERINARY COLLEGE.**—The annual commencement of the American Veterinary College was held on Thursday evening in the lecture-room of the College of Physicians and Surgeons, Fourth Avenue and Twenty-third Street. Seated behind the railing were the Faculty and Trustees of the institution, together with a number of distinguished medical men, among them Prof. John C. Dalton, who made the address of the evening, and Prof. J. W. S. Arnold, of the Medical Department of the University of the City of New York. S. Marsh, President of the Board of Trustees, presided. From the report of the collegiate year 1877-8 it appears the college is in a prosperous condition, and that it has been decided to extend the course of instruction necessary to graduation, so as to secure three years of study instead of two, as heretofore. The degree of D.V.S. (Doctor of Veterinary Surgery) was conferred by the President of the board, on behalf of his colleagues, upon the six members of the graduating class, to wit: John Frost, Winchester, Mass.; Alfred H. Rose, of New York; John H. Schmidt, New Jersey; Samuel E. Field, New York; John C. Force, New Jersey; and William H. Wray, New York. The prize for proficiency—a handsome case of surgical instruments—was awarded to John Frost. Prof. Dalton was then introduced, and read a short address on the responsibilities of the veterinary surgeon, the important contributions to physiology made by veterinary colleges, and the best methods of practice, concluding with an anecdote in ridicule of the routine doctor. Prof. J. W. S. Arnold followed with a written address of considerable length, in which he pointed out the facilities for investigation open to veterinary practitioners.

**COMMENCEMENT OF THE COLLEGE OF PHYSICIANS AND SURGEONS.**—The seventy-first annual Commencement of the College of Physicians and Surgeons, and Medical Department of Columbia College, was held at Steinway Hall, Friday evening, March 1st. Nearly every seat in the body of the hall was filled, and the galleries and boxes were fairly crowded. Prof. Alonzo Clark, President of the college, conferred the degree of Doctor of Medicine upon one hundred and nine

graduates. He then delivered his address to the graduates. It was filled with the practical and advisory maxims that govern every successful professional career. Among other things he advised the graduates to cultivate a public spirit, and to be active in all measures of sanitary and other reform, but to avoid politics and to deny themselves to all offers of political emolument.

The award of prizes, by Prof. Markoe, followed directly upon the address to the graduates. The first award was that of the diplomas of examination honors to the ten members of the class who, in their examination before the Faculty for the degree of Doctor of Medicine and in their graduating theses, had shown the highest proficiency. Each recipient of such a diploma is entitled to appear at a special public competitive examination in writing for the three examination prizes. The following members of the class came forward as their names were called, and received their special diplomas: John S. Aitkin, Talbot R. Chambers, Edward Fridenberg, Richard J. Hall, Ellsworth Elliott Hunt, Alexis M. Low, Edward G. Manpin, William D. McKim, Charles D. Sarder, Isaac Weil. The first examination prize of \$100 for general proficiency was awarded to Richard John Hall, the second of \$50 to Isaac Weil. The third prize of \$25 was awarded to two candidates, Edward Fridenberg and Ellsworth Elliott Hunt. The Committee of the Alumni prize of \$500 for the ablest thesis, and that of the Joseph Mather Smith prize, announced that none of the theses offered had been of sufficient merit to justify an award. Charles D. Scudder delivered the valedictory, and Charlton T. Lewis, Esq., addressed the graduates.

**UNIFORM MEDICAL EXAMINATIONS.**—A bill is before the House of Commons, Great Britain, for providing a uniform test for admission into the medical profession in England, Scotland, and Ireland.

**ELECTRICITY IN THE OPERATING-ROOM.**—At Guy's Hospital both surgeries and the operating theatre are now connected direct with the electrifying room, so that the surgeon may have the current at his disposal at any time when he may require it. He presses a small stud, which rings a bell in the electrician's room, and points out on an indicator where the current is required. The latter is then turned on without loss of time. At night the operator can obtain the current by the simple movement of a spring, the indicating apparatus in the battery-room registering the fact, and also betraying the negligence of the operator if the current is not turned "off" when not required. The arrangements are complete, and work satisfactorily, and Mr. Seymour contemplates carrying them out in the medical wards, so as to avoid the necessity for shifting heavy batteries to that part of the hospital where the current is required.—*Dublin Press and Circ.*

**TRICHINOUS DISEASE** has made its appearance in South Bend, Indiana. Three cases have died and fifteen others with the disease are not expected to live.

**THE CALIFORNIA STATE MEDICAL SOCIETY.**—The annual meeting will be held at San José, Wednesday, April 17th.

**HOMŒOPATHIC SYMPTOMS.**—The encyclopædia of Pure Materia Medica (Homœopathic) gives a list of 3,115 symptoms produced by lycopodium.

**THE LATE DR. WILLIAM STOKES.**—The number of *The British Medical Journal* for February 2d contains an excellent portrait of the late Professor Stokes, of Dublin.

**THE OVERCROWDED PROFESSION.**—In the "Sentimental Journey," Lawrence Sterne says: "They order these things better in France." The following advertisement from a recent number of *Le Progrès Médical*, offers a striking contrast between the state of the medical profession in France and here: "**VACANCE MÉDICALE.**—La Commune d'Anville (Popula. 1270 h.) demande un médecin. Elle offre beau logement gratuit pendant quatre ans. S'adresser, etc."

Here is a community which probably numbers 5,000 souls (1,270 men), advertising for a doctor, and willing to furnish him good lodgings four years gratuitously. In this country the same number of souls is supplied with fifteen or twenty medical men. The above requires no comment.

**ANTISEPTIC VINEGAR.**—The following is the formula for the antiseptic vinegar prepared by M. Pennés, of Paris:

|                                                        |                                 |
|--------------------------------------------------------|---------------------------------|
| Salicylic acid                                         | 300 grms. ( $\frac{5}{8}$ lbs.) |
| Acetate of alumina                                     | 300 " ( $\frac{5}{8}$ lbs.)     |
| Concentrated alcoholic solution of eucalyptus globulus | 1,000 " (Oij.)                  |
| " " " vervain                                          | 9,000 " (Oxvlij.)               |
| " " " lavender                                         | 1,000 " (Oij.)                  |
| " " " benzoin                                          | 100 " ( $\frac{1}{2}$ lbs.)     |
| Acetic acid at 8° (Cent.)                              | 1,000 " (Oij.)                  |

Mix carefully, shake often during two or three days, and filter to preserve.

This vinegar may be used as a lotion, either pure or diluted with water. Five quarts injected into the carotid has preserved a corpse perfectly for several months. As a disinfecting and antiseptic agent it may be employed in the form of spray.—*Le Mouvement Médical*, Sept. 15, 1877.

**CHILDREN'S HOSPITAL OF THE DISTRICT OF COLUMBIA.**—The seventh annual report of the Children's Hospital of the District of Columbia shows 122 admissions for the year 1877, which, with the 35 patients who were in the hospital at the beginning of the fiscal year, December 1, 1876, gives an aggregate of 157. Of these, 83 were discharged cured, 20 improved, 2 unimproved, and 18 died, leaving 34 inmates at the opening of the fiscal year current. Of the admissions, 73 were white and 49 colored; 68 male and 54 female. The number of dispensary patients during the year has been 766, of whom 379 were white and 387 colored; 367 male and 399 female. The daily cost per capita of the patients occupying beds in the hospital during the year has been only 58 cents, certainly a most complimentary exhibit for the management, and one which is commended to the consideration of boards of pauper hospitals in all parts of the country. The number of operations performed during the year has been 48.

**BALTIMORE MEDICAL AND SURGICAL SOCIETY.**—The following officers were elected at the Seventh Anniversary Meeting of the Baltimore Medical and Surgical Society: President, Dr. Wm. J. McDowell; 1st Vice-President, Dr. A. Friedenwald; 2d Vice-President, Dr. J. J. Caldwell; Recording Secretary, Dr. George H. Rohé; Corresponding Secretary, Dr. B. F. Leonard; Reporting Secretary, Dr. G. Lawson Wilkins; Treasurer, Dr. Wilmer Brinton.

**THE MINUTE STRUCTURE OF RED BLOOD-CORPUSCLES.**—In the November and December number of the London *Microscopical Journal* is an article on the above subject, being a notice of an article by Professor Boettcher, and published in the *Archiv für Mic. Anat.*, Bd. 14. Prof. Boettcher claims to have demonstrated the presence of a nucleus in said corpuscle. His method of work is as follows: "He makes use of a saturated solution of corrosive subli-

mate in 96 p. c. alcohol, and into about 50 volumes of this solution one of blood is to be rapidly diffused. By this means the corpuscles are deprived of their hematine, and their internal structure made clear. At the same time they are preserved and bleached. The mixture is frequently agitated, and in about twenty-four hours the corpuscles are allowed to subside and the supernatant fluid poured off, and pure alcohol added. By frequent agitation for another twenty-four hours, the corpuscles are thoroughly washed. The alcohol is then poured off and clear water added. In a short time the corpuscles will be seen, as a nearly white layer, at the bottom of the vessel. By straining these with different fluids, Prof. Boettcher claims to be able to find three classes of red corpuscles. First, homogeneous and shiny throughout. Second, added to a homogeneous, shiny cortical layer is a granular mass in the interior, which takes the straining fluid readily. The third has the same cortical layer and protoplasm, but enclosed in the latter is a nucleus and nucleolus."

At the "Physiological Laboratory," University of Michigan, Dr. C. H. Stowell has demonstrated this structure in the manner given above. The specimens were shown to his classes in histology and to different members of the Faculty. Carmine was employed as the staining fluid.

The majority of the corpuscles were "homogeneous and shiny throughout," while some had enclosed within them a sharply defined nucleus, it being very rare to find one possessing a nucleolus also. There was a marked difference between the appearance presented by a corpuscle with a nucleus, and by the refraction of a "cup-shaped" corpuscle. By establishing a current through the field, the one appearance could not be mistaken for the other.

**POPULATION OF BRITISH INDIA.**—The territory subject to the British administration in India comprises 909,834 square miles, with a population of 191,065,445 inhabitants. The native states comprise 573,052 square miles, with 48,233,978 inhabitants. Including the French and Portuguese possessions, the entire superficial area of India is 1,484,150 square miles, with a population of 239,978,595 inhabitants. The 191 millions of inhabitants in British India are divided as follows among the different religious sects: Hindoos, 131,343,820; Sikhs, 1,174,436; Mohammedans, 40,867,125; Buddhists, 2,832,851; Christians, 897,682; others, 5,417,304; and 552,227 whose religion is not known.

**NEW YORK EAR DISPENSARY.**—During the past year there have been treated at this institution eight hundred and seventy-four cases of ear disease, a marked increase over that of any preceding year. The charity is well managed, and deserves its prosperity. Dr. Samuel Sexton is the surgeon in charge.

**TRACHEOTOMY IN FRANCE.**—In the Hospital St. Eugénie, of Paris, 2,312 operations of tracheotomy were performed during twenty-two years, with 509 recoveries. In the hospital for sick children, in Paris, 2,351 patients were operated upon in twenty-five years, with 614 recoveries. In all the hospitals of France, collectively, the average recoveries are 30 per cent.

**TREATMENT OF BURNS.**—The local application of a saturated solution of bicarbonate of soda in the treatment of burns is steadily growing in favor.

**CHEAP MEDICAL SERVICES.**—The British physicians are complaining against the growing custom of cheapening medical advice.



## Original Lectures.

### CLINICAL LECTURE.

DELIVERED AT THE PENNSYLVANIA HOSPITAL.

By JACOB M. DA COSTA, M.D.,

PROFESSOR OF PRACTICE OF MEDICINE IN JEFFERSON MEDICAL SCHOOL, PHILADELPHIA.

(Reported for THE MEDICAL RECORD.)

- I. *Cerebral Tumor.*
- II. *Syphilitic Meningitis—Gummy Tumor.*
- III. *Cerebral Congestion as a Result of Syphilitic Arteritis.*

#### CEREBRAL TUMOR.

R. B., 35 years of age, is a house-painter by trade. He had chances five years ago. These were not followed, however, by any constitutional symptoms. In July last, while attending a political convention, he drank a great deal, was, in fact, intoxicated for a week. This carousal was followed by a severe pain in the head which seriously affected his sight. Soon after this he had an attack of vomiting. Since that time his headache has never left him, but has constantly increased in severity. Vomiting was occasional at first, but has not lately been a feature of the disease.

Since the patient has been admitted to the hospital, it has been impossible to obtain from him any connected history of his malady. His answers have been faulty. His intellect is evidently much obscured. The chief symptom which he complains of is the constant and excruciating pain in his head. This pain has lately been associated with marked disturbance of vision. He sees imperfectly; speaks of spots before his eyes. You notice that the balls of his eyes are very prominent. At present the poor fellow is not only a great sufferer from headache, but is also subject to the most strange hallucinations and the actor in a great variety of imaginary scenes. He cannot possibly stand without support. The muscles of his legs are exceedingly weak and his grasp most feeble, that of the left hand especially so. He is also subject to curious, irregular spasms and tremblings. There is evidently in this case some most marked and serious brain affection. The temperature is usually but little above normal, once it ran up to 101°. Ophthalmoscopic examination reveals a marked choking of the retinal discs. The urine has been carefully examined and found to be free from sugar and albumen.

Within the past week the most prominent symptom has been the mental disturbance in the shape of delirium and hallucination. The headache is about the same. The man is less conscious of his actions; spits on the floor, and has involuntary discharges from the bowels. He has lost, therefore, to a certain degree, both mental control and moral sense. There is a daily increasing tendency to spasmodic contractions of the muscles of the neck. His neck, you see, is bent back.

What is the matter with the patient? I think he has a cerebral tumor which gives rise to these symptoms. On what facts do I base my diagnosis? You will first ask me this question; then you will want to know if there are any other maladies followed by the same general symptoms. I base my diagnosis on these three points chiefly. (1.) The excessive, persistent headache. (2.) The general asthenia, particularly the loss of power in the extremities. (3.) The

evidence of pressure inside of the skull, as shown by the marked choking of the discs, the great exophthalmos and the obvious defects of vision. To these, however, a few more points may be added. I would call particular attention to the tendency to spasmodic contractions—as exhibited by the muscles of the neck and forearm. Such contractions point generally to some irritative lesion of the brain, which generally turns out to be a tumor. Another argument which has great weight in leading me to this diagnosis is the fact that the man's mind has been so long unobscured. Not until lately has it been more affected than it would necessarily have been by the severe and protracted headache. All the mental deterioration has come on quite recently, and since the changes in the motor system have appeared. Cerebral tumor almost invariably leaves the intellect unaffected until comparatively late in the course of the disease.

Why is the mind so tardily affected by cerebral tumor? In the progressive growth of a cerebral tumor there is but little alteration taking place in the superficial portion of the brain where intellection is supposed to reside. It is not until the tumor has attained a considerable size, that a pressure is set up which so interferes with the blood-supply of the brain as to produce first, cerebral anemia, then imnutrition, and finally softening of the brain substance. In local softening of the brain, there is a progressive obscuration of mental power, but in cerebral tumor, I repeat, the softening only takes place in the last stages of the disease, when the tumor has reached such a size as to seriously interfere with the cerebral blood supply.

I can look at this case in no other light than as one of cerebral tumor. The characteristic combination of the symptoms allows of no other diagnosis to my mind.

You will ask me, perhaps, are there any symptoms wanting to render your diagnosis more conclusive? I will answer you candidly. There is more than one characteristic symptom of cerebral tumor wanting. There is no local paralysis of the muscles of the face noticeable here. This is a very usual condition in most cases of cerebral tumor, and yet I can as truthfully say that the absence of this paralysis does not invalidate my conclusion. Another common symptom of cerebral tumor is persistent vomiting. As I have already told you, there was vomiting early in this case, but it has almost entirely passed away. Still, my diagnosis is not upset. And why? Simply because vomiting is the result of a tumor seated in a certain spot, *i. e.*, a tumor which presses upon the origin of the pneumogastric nerve. This tumor evidently does not press upon the origin of the pneumogastric nerve, and so, very naturally, we have little, or no vomiting in this case. This fact, *viz.*, the absence of vomiting, will give us some clue in settling upon the exact site of the tumor. But we shall come to the consideration of this point hereafter.

Is any other disease possible in the present instance? There are two other diseases possible, but I do not believe in the existence of either of them in this man, and I will tell you why. This might possibly be a case (1) of chronic meningitis with thickening, or (2) a case of diffused softening. Let us consider the chronic meningitis first. The symptoms of this disease are spasmodic contractions, persistent headache and vomiting. We have, in truth, in chronic meningitis symptoms very similar to those of cerebral tumor. But consider this point—the acute origin of this case—the inception of the symptoms dating from exposure and debauch. *I have drawn your attention to*

this statement to tell you that meningitis may begin in just this way. In meningitis, however, there is always more or less fever. Here there has been none to speak of. In meningitis, especially when it has an acute beginning, mental aberration is one of the earliest symptoms. Here it has been one of the latest. The steady, progressive course of the disease in this man from worse to worse, uninfluenced by treatment, is against the assumption that the case is one of chronic meningitis with exudation and thickening, for that disease can, in the generality of instances, be very materially relieved, if not altogether cured, by the proper treatment.

I have come across one symptom in this case which does not belong to the history of cerebral tumor. This case had an acute beginning. *Acute beginning—how do I explain that away?* There are some cases in which a tumor seems to explode in its symptoms. There is a sudden development of acute symptoms in the gradual course of the disease. Such an acute development I take to have happened in this case.

But again: this case might conceivably be one of cerebral softening. Why do I think that such is not the fact here? Cerebral softening very rarely occurs before middle-life, unless there be a specific, definite cause, such as disease of the heart or of the blood-vessels. As a celebrated modern writer on this subject has put it, "we have no knowledge of cerebral softening without cerebral embolism." This is a strong statement, but, as a general thing, will be found to be true. Again, cerebral softening, when existing to such an extent as to impair motion so greatly, would have to be of a very diffused character. If it were of so diffuse a nature, the intellect could not remain intact near so long a time as it has in the case of this man. Changes and disorders of intellect are among the first signs of cerebral softening. These disturbances of intellection appear long before the asthenia, and general palsy. This is a strong point of diagnosis. As regards the spastic contractions also, it is well known that they are not among the symptoms of cerebral softening. Spasms belong peculiarly to tumors and meningitis. So markedly do they belong to cerebral tumors, that we very frequently find them assuming the shape of general convulsions, though no convulsions have occurred in this instance. Having now narrowed the possibilities of the diagnosis down to one definite reality, there are still two other points which must needs be settled. (1) What is the character of the tumor? (2) Where is it situated?

As regards the answer to the first of these questions, I can only plead entire ignorance. It is a simple impossibility to recognize the character of a cerebral tumor without an autopsy. Nor is it of any practical consequence that we should recognize it, except in so far as to knowing whether or not it is syphilitic in its nature. The question as to whether it be a sarcoma, or a glioma, or a cancer, may be of great interest to the pathologist, but it is a point of no practical value to the clinician. Here the history of the case favors the view of its syphilitic nature. Against this view, however, must be set the fact that persistent anti-syphilitic treatment has had no influence whatsoever upon it. We have been long using large doses of the iodide of potassium without the least effect. The evidence to be drawn from the results of anti-syphilitic treatment is therefore against the syphilitic origin of the tumor. Where there is an hereditary history of cancerous diathesis, the tumor is very apt to be a cancer. Here we know nothing definitely with regard to the nature

of the growth, nor is it necessary that we should know anything definite about it.

As regards the probable position of the tumor, I think I can give a far more accurate answer. I should say that the tumor was located at or near the base of the brain, that it probably sprang from the tentorium, and that it compressed the motor tracts of the cord at or near their point of decussation. I say this, because this patient suffers from such excessive asthenia on both sides of his body. If the tumor were situated in any other centre of motor power, it would have to be large enough to affect both of the corpora striata. It lies, therefore, not in the motor ganglia proper, but at the origin of the spinal cord. The marked choking of the discs of the eyes rather favors this view. The only fact to be mentioned against such a possible site is the absence of vomiting. This can be explained very easily by the supposition that the tumor does not press upon the origin of the pneumogastric nerve. There would probably be just the same class of symptoms as we note here if the tumor were situated in the cerebellum. I have made the endeavor to discover if there was any loss in the power of co-ordinated movement, but owing to the condition of the patient the examination had to be given up. I do not believe that the tumor involves the cerebellum, though it is quite possible. There is always a source of fallacy in trying to fix the exact site of a cerebral tumor. For, as Brown-Séquard has shown, the symptoms of reflex irritations of other parts of the brain may be mistaken for those produced by the tumor.

The prognosis of cerebral tumor is generally extremely unfavorable. If it is quite clear that the tumor is of syphilitic origin, there is a good chance of cure by the use of mercury and iodide of potassium. This poor man has no chance whatsoever of recovery. All treatment has completely failed. He will certainly die, and that quite soon.

Our treatment of this patient has been based upon the idea that the tumor was of syphilitic origin. We have given large doses of the iodide of potassium; at first fifteen grains, thrice daily, and lately as much as thirty grains, four times a day. For the last four weeks the man has been taking 3 ij. of the iodide daily without any improvement. To remedy the cerebral congestion, I have ordered blisters and other counter-irritants to be applied to the nape of the neck.

To relieve the excruciating and constant headache, I tried the bromide of potassium, and gelsemium, both without any effect, and then resorted to local venesection. This always afforded relief. Thus I have taken from two to five ounces of blood from the patient, opening a vein near the mastoid process, or in the nape of the neck whenever the headache was very bad. I am convinced that, in such cases as this, the local abstraction of blood affords more relief than can be obtained by the use of any internal remedy.

Up to within the past week or two, I have been able to control the patient's restlessness by means of large doses of the bromide of potassium and cannabis indica. The time has come, however, when the man's terrible distress and constant restlessness have become so uncontrollable, that the hypodermic injection of morphia is the only means of giving the poor fellow peace. This I do to produce euthanasia. Why should we refrain from giving opium even if there is a chance of its producing cerebral congestion in such a case? Why not let the patient have all the comfort possible in the terrible closing hours of such a disease as this?



## SYPHILITIC MENINGITIS—GUMMY TUMOR.

I. H., 36 years of age. Had syphilis many years ago, but not in an unmistakable form, since the only symptom following the chancre was persistent headache. As this did not come on until several years after the sore had healed, it is doubtful whether there was any connection between the two. The patient lately has had perfect health until about two weeks ago when the headache returned. He was admitted on January 19th. On January 12th he first felt the headache and pain. These were most marked in the ball of the right eye. At about the same time the right upper eyelid began to droop. The vision of the right eye was also interfered with; he saw double at times, and occasionally his sight was blurred. The pain in his head is always intensified at night. There is no albumen in the urine, no heart disease, in fact no organic disease of any kind.

Let me carefully examine the case with you. What strikes me most markedly is the droop of the right upper eyelid. This droop prevents the eye from being completely opened. There is evidently paralysis of the right upper eyelid. The right lower eyelid is not affected. Upon examining the eyes intently I find some disparity in size between the pupils, the right being smaller than the left. There is no loss of power, however, in the right eye of adapting itself to the varying intensity of light. With regard to the pain it is chiefly felt deep in the ball of the eye. It is not limited to that spot, however, but is occasionally referred to a point behind the ear. The pain is not increased by pressure, and there is no obvious swelling of the bone, nor is the pain increased by moving the muscles of the scalp.

In testing (1) the muscles of each side of the face I find no loss of power on the right side; in testing (2) the eye muscles I am struck with the fact that the patient cannot readily turn the right eye in—there is, therefore, slight palsy of the internal rectus. The right external rectus is also somewhat defective in power. In testing (3) the eyes themselves the right retina was found to be slightly congested, there was, however, no choking of the disc.

As regards sensation there is far greater sensitiveness on the right side of the face than on the left. The power of taste seems to be about the same at the two sides of the mouth. As regards the hearing, there is a very great difference between the two ears. The patient can scarcely hear the ticking of a watch held only one inch from the right ear, while he can hear it plainly six or seven inches from the left ear.

I also find that the power of grasp of the right hand is weaker than that of the left. There is no appreciable difference in the gait, or muscular power of the two legs. Testing the muscles by electricity shows that the contractile powers of the muscles of both sides of the body are equally well preserved.

What is the matter with the man? The headache is evidently unassociated with disease of the bones. It is certainly a very instructive case. What is its anatomical analysis? Which nerves are paralyzed? By reason of the affection of the right eyelid and retina the third nerve of the right side must be more or less paralyzed. So, too, as regards the sixth nerve. As there is marked hyperesthesia of the right side of the face the fifth nerve must also be involved. The difference in the powers of hearing of the two ears shows that there is something the matter also with the portio mollis of the auditory nerve. If there is this disturbance of these nerves there must be some source of irritation.

Taking all these points into consideration, I should say that the lesion was low down on the right side in the vicinity of the pons. No other explanation is sufficient to account for the symptoms. I should also say that the lesion must press upon the spinal nerves below their point of decussation. I think that the lesion is probably a gummous mass, the result of an exudation. No sudden lesion other than a gummous mass would explain the rapid development of headache, palsy, and general right-sided weakness.

The man tells us that about a year ago he had an attack very much like this, and that it disappeared entirely under treatment. I can imagine a slowly growing tumor in this case also, but then that would not have allowed the man the past year of perfect immunity which he has had. In that case there would have been spasm. Could it be a case of simple, unspecific, local meningitis? We never have local meningitis without some direct cause, such as a blow or injury. There is no history of such a cause here. Again, there is always fever in local meningitis, usually accompanied by nocturnal delirium. These symptoms are all absent here. There has not been any aberration of intellect in this man.

As regards treatment, blisters have been applied behind the patient's right ear and at the nape of his neck. Occasionally he has been purged. I have also put him upon large doses of the iodide of potassium, at first twenty grains three times a day. Later this amount was doubled and I steadily kept on increasing the dose until now he is taking 3 i. four times a day. The chances of cure are excellent. If the headache is too severe at any time I will order the administration of half a drachm of the bromide of potassium. I will rather trust, however, to the local impression made by the general remedy.

## CEREBRAL CONGESTION, A RESULT OF SYPHILITIC ARTERITIS.

L. H., 26 years of age, a sailor, has had distinct syphilitic disease, which was followed by papular eruption and falling out of hair. Was admitted on January 17th. On the morning of January 14th he woke up to find some difficulty in his speech; was unable to articulate distinctly. He also noticed a loss of power in the right side of his body. This was not, however, bad enough to keep him from his work. There was a little later quite marked loss of power in the right arm and right side of the face. He had regained the power in his arm when admitted to the hospital. You see to-day that there is still some slight difference in the two sides of the face. The right eyelid is moved less readily than the left. The facial palsy, however, has also largely disappeared. Both of the retinas are congested, but there is no choking. There is slight deafness on the right side. As regards his power of speech, though largely regained, there is still some difficulty in the remembrance of words. He has that form of aphasia in which one's vocabulary is very limited. He is suffering still from headache and giddiness.

What is the disease? you will ask. There has been present either one of two conditions. There has been either marked congestion of the left anterior cerebral lobes, or there has been cerebral embolism. Why do I not talk of apoplexy as a possible explanation? Simply because the man has not lost consciousness once since the beginning of the attack. The course of the palsy has also been too rapid for apoplexy.

I believe it to be a case of congestion rather than of embolism, and why? The man has no heart disease, and embolism is generally a result of heart disease.

It is barely possible that embolism might occur during the course of syphilitic degeneration of the arteries, but this is very unusual.

Why do I say that there has been congestion of the anterior convolutions? Because clinical experience has taught that the occurrence of right-sided palsy with aphasia points to a lesion of the left anterior lobes. Physiology teaches us that it is there that the organs of articulate speech reside, particularly in the third convolution.

You see how much improvement the man has made. I think he will recover entirely under the use of purgatives and mercurials. He has been taking large doses of iodide of potassium. It is needless to say that the underlying syphilitic poison, causing degeneration of the cerebral arterioles, has been at the bottom of this attack.

## Original Communications.

### CONCERNING PULSATILLA AND OTHER MATTERS.

By HENRY G. PIFFARD, M.D.,

SURGEON TO THE CHARITY HOSPITAL, ETC.

**BOTANICAL.**—The natural order RANUNCULACEÆ furnishes many of the most active (*i. e.*, poisonous) of the vegetable substances that are employed in medicine; as aconite, belladonna, etc., together with the subject of this sketch.

Among the RANUNCULACEÆ we find the tribe ANEMONEÆ, which embraces five genera, including the genus *Anemone*. This latter alone concerns us at present. It comprises several varieties prevalent in Europe and the United States, and those of medical interest are as follows:

|                                       |                         |           |
|---------------------------------------|-------------------------|-----------|
| Anemone Pulsatilla,                   | } Pulsatilla Nigricans, | Synonyms. |
| " Pratensis.                          |                         |           |
| " Nemorosa,                           |                         |           |
| " Ludoviciana, Pulsatilla Nuttaliana. |                         |           |

The *A. puls.* and *A. pratensis* are European plants, and differ little from each other morphologically, and are supposed to possess identical physiological and therapeutical properties, and in foreign pharmacopœias are frequently confounded under the general name of *pulsatilla*. The *A. Nemorosa* is both European and American, but is not employed to any extent as a therapeutic agent. The *A. Ludoviciana* is an American plant.

Prof. Lee, formerly editor of the *New York Journal of Medicine*, says\* that there are five varieties of *Anemone* in this State, among which is the *A. Nemorosa*. The *A. puls.*, *A. pratensis*, and *A. Ludov.* are not mentioned. He adds "that the medicinal properties of *Anemone* are similar to those of the *Clematis*, only more active. The *Nemorosa* acts as a poison to cattle, producing bloody urine and convulsions. An ointment of it speedily cures *Tinea capitis*. In the recent state, most of the species are acrid and rubefacient."

**Historical.**—Some of the varieties of *anemone* were known and employed in medicine in very early times. Of the earlier writers who speak of it, Galen (about A.D. 175), Paulus Ægineta (A.D. 675), and Avicenna (A.D. 1050), may be mentioned.

\* A Catalogue of the Medicinal Plants growing in the State of New York. By Charles A. Lee, M.D. New York, 1848.

GALEN\* says of *anemone*: "Radix commansa pituitam evocat. Succus e miribus purgat, et oculorum cicatrices extenuat. Insuper sordida ulcerum *anemone* expurgant, et lepras detrahunt, mensesque appositivum eliciunt, et lac trahunt."

PAULUS ÆGINETA† says: "*Anemone* omnes acres sunt, et abstergentis nature, evellentisque, et ora vasorum aperientis. Pituitam itaque evocant, et lepras detrahunt appositivum, lacque eliciunt."

AVICENNA‡ says: "Est absterrens, lavativa, attractiva, aperitiva, resolutiva. Denigrat capillos mista cum corticibus mureis, et quando administrantur folia ejus et stipites ipsius sicut sunt aut decocta bonificat capillos. Linitur ex decoctione ejus super apostemata, que non sunt dura, et fit evacuatio per eam super carbunculos et bothor calidas. Conferat ulceribus sordidis et incarnat en ex exoriationibus, et ipsa mundificat ulcera, conferens exoriationibus et scabiei ulcerosie. De ejus succo fit caputpurgium ad purgandum caput, et cerebrum, et ejus radix masticatur ad extrahendas humiditates a capite. Succus ejus confert tenebrositate oculi, et visus et albugini ejus et vestigiis ulcerum et quando decoquitur cum vino, et fit inde emplastrum, sanat apostemata dura in partibus oculi. Si coquantur folia ejus et stipites ejus cum sorbitionibus hordei et comedatur, facit abundare lac. Provocat menstrua."

From the foregoing it will be seen that the *Anemone* was esteemed in diseases of the eye and skin, in derangements of the menstrual function, and as a galactagogue. For some reason, however, the plant fell into disuse, and was almost forgotten until Störck revived it during the latter part of the last century. This writer§ regarded it as one of the heroic medicines that had been unjustly neglected, and recommended its use in melancholy, amenorrhœa, severe forms of syphilis, and in certain diseases of the eyes, etc. The fame of the drug spread to England and France, but in the former country it retained for a short period only the dignity of an official preparation.

Cullen|| speaks of it as follows: "This is one of the remedies which we owe to the benevolent industry of Baron Störck: but he has ascribed to it so many wonderful effects that his credit is hurt with many persons, and has made many neglect to give this remedy a frequent and fair trial. It has particularly concurred with this in Scotland that the plant is not a native of this country, and that there has not been ready access to it.\* But whatever may become of the credit of Baron Störck's experiments, I must observe that the plant is an acrid substance, and therefore capable of being active: and from the singular matter resembling camphire which water distilled from it contains, it may have peculiar powers and virtues.

"I would still recommend it to the attention of my countrymen, and particularly to a repetition of trials in that disease so frequently otherwise incurable, the amaurosis. The negative experiments of Bergius and others are not sufficient to discourage all trials, considering that the disease may depend upon different causes; some of which may yield to remedies, though others do not."

In Germany and France it gained and retains a place in the pharmacopœia, though but little used in

\* Epitome of Galen, translated and edited by Andreas Lacuna. Basilee, 1571.

† Edited by Albannus Torinus. Basilee, 1532.

‡ Translated by Alpagas. Basilee, 1556.

§ Libellus de usu medicæ Pulsatillæ nigricantis. Frankfort. 1771.

|| A Treatise of the Materia Medica. Edinburgh. 1789.

\* The preparations used in Scotland were probably made from the dried herb.



practice. It has never, we believe, been official in this country. The successors of Störck failed to obtain the good results claimed by the latter, and the drug fell into disrepute in regular practice. Later Hahnemann made a "proving" of *pulsatilla*, and regarded it as a polychrest, and recommended it in a number of diseases, especially those which have already been mentioned. Among his followers it has retained its early reputation, for reasons that will presently be apparent.

Still later Rademacher\* recommended it in nervous affections, headache, asthma, whooping-cough, amblyopia, amaurosis, etc. Rademacher used the same preparation as Hahnemann, namely, a tincture prepared "ex herba florescenti recenti," by mixing the expressed juice with an equal volume of alcohol (*op. cit.*, p. 243).

In England attempts have from time to time been made to revive the use of *pulsatilla*, but without success.

In this country comparatively little attention has been drawn to the drug, and but two articles concerning it have fallen under our notice. The earlier of these is by Mr. A. W. Miller (pharmacist), on the "*Anemone Ludoviciana*" (*Am. Jour. of Pharmacy*, vol. xxxiv., 1862). He says: "The many points of similitude between this plant and the European *Anemone Pulsatilla*, which were also noted by Nuttall, very naturally gave origin to the supposition, that in chemical composition and therapeutical effects they were also closely allied, if not identical. Numerous experiments, instituted by Dr. W. H. Miller, of St. Paul, Minnesota, with a view of verifying the latter surmise, proved to be entirely successful, and also served to establish the value of this remedy in many chronic diseases of the eye, particularly cataract, amaurosis, and opacity of the cornea. Very decided advantage was also experienced from its employment in cutaneous eruptions and secondary syphilis. These results, in conjunction with the investigation of its chemical constituents, are believed to be sufficient to warrant the substitution of this indigenous plant for the European *A. puls.*, which, though not often administered by regular practitioners, is very frequently resorted to by homœopaths."

"A tea of the dried flowers and herb was sometimes employed, as well as the juice of the fresh plant bruised and expressed, and then either preserved by the addition of one-fourth of its bulk of alcohol, or evaporated to the consistence of an extract. In preparing the latter, the presence of some volatile acid principle was clearly manifest by the highly irritating vapors arising from the juice on the application of a gentle heat, producing a very painful impression on the eyes of the operator. That this volatile substance is also dissipated by drying is proved by the taste of the dry flowers, which is simply sweetish and herbaceous, that of the leaves being more astringent, with very slight acrimony, while in the recent state both are exceedingly irritating and acid. The odor of the dried plant is faint, being slightly camphoraceous."

"As the preserved juice had not been subjected to the deteriorating influence of evaporation, it was supposed to contain the greatest amount of active principle. It was therefore most frequently administered, and the most marked effects of the drug were observed to follow from its use."

In the second article, Dr. J. C. Peters (*Bost. Med. and Surg. Jour.*, Aug. 29, 1867) gives the history of the drug, and compares its effects with those of

Senega. He says: "Both remedies have been used successfully in catarrhal affections of the eyes, nose, ears, throat, air-tubes, gastro-intestinal and urinary organs."

**Chemical.**—The *A. pulsatilla*, like the *A. pratensis*, and probably several other *Ranunculaceæ*, owes its energetic action to a volatile crystallizable principle of neutral reaction, soluble in hot water and hot alcohol, from which it is deposited on cooling, and which has received the name of Anemonin. This is an acid substance, and the melted crystals applied to the tongue produce a pricking and stinging sensation, and leave after them white spots like those caused by escharotics. The fresh plant possesses the same irritating, vesicating, and even caustic properties, but in consequence of the volatility of its active principle the desiccated plant is almost inert. Besides its local irritating action, anemonin doubtless produces general effects analogous to those of aconitine. This has not as yet been determined by physiological experiment (Gutler).\*

The accepted formula for anemonin is  $C^{15}H^{20}O^6$ . When deposited from the distillate it forms colorless shining orthorhombic prisms, heavier than water. These are insoluble in cold, but slightly soluble in warm ether. They are more soluble in chloroform, and also in hot lavender and olive oils (Husemann).†

This active principle appears to have been first isolated in 1779, by Heyer, who employed it successfully in disease of the eye. Since then it has been used but little therapeutically (Reil).‡

**Physiological.**—Störck experimented with the plant on healthy persons, and has left the following observations concerning its effects:

"In lingua primo dolor, tum calor diutinus.

In brachio hinc inde dolores lancinantes.

In brachio nocturnus pruritus.

Menstruatio aucta.

In brachio vesiculæ, pure inde dein refertæ et squamis deciduæ.

Vomiturio.

Eneuresis.

Sudor magnus, foetidus, nocturnus.

Ardor urinae molestus.

Materiæ aqueosæ fetidæ secessus ex urethrâ.

Oculi aquâ suffusi, lachrymis abundantes lippî.

Salivatio.

Dolor in oculi, quasi cultro radatur.

Lancinans in abdomine dolor.

Ardentes, lacerantes, vagi dolores a digitis pedum ad inguen usque.

Hæmorrhoids fluida.

Tormina lacerantia.

Diarrhœa.

Eneuresis fere continua.

Diarrhœa non debilitans.

Dolores summi lacerantes, terebrantes secantes in oculi.

Menstruatio copiosa.

Purulenta excretio e nare sinistra."

Hahnemann§ quotes the foregoing and adds a large collection of symptoms said to have been produced by the drug. Some of them are doubtless reliable, while others (perhaps the majority) are accidental, illusory, and non-essential. The difficulty is to distinguish the former from the latter.

\* *Commentaires Thérapeutiques du Codex Medicamentarius*. Paris, 1874.

† *Die Pflanzenstoffe*. Berlin, 1871.

‡ *Materia Medica der reinen chemischen Pflanzenstoffe*. Berlin, 1857.

§ *Frag. de vir. med. pos.* Lips, 1805.

\* KISSEL: *Die Heilmittel Rademacher's*. Giessen, 1859.

The effects of the active principle (anemonin) have been studied to a limited extent, chiefly by Clarus, who found that doses of 0.5 to 0.6 grm. causes death in rabbits. The plant paralyzes the medulla oblongata and spinal cord, and excites irritation of the digestive tract and the kidneys.\*

**Pharmaceutical.**—A variety of preparations of pulsatilla have been employed. Beside the expressed juice preserved in alcohol (*i. e.*, tincture) and the *distilled water*, the drug has been given in powder, in decoction (tea), and in aqueous and an alcoholic extract. The latter is official in the *Pharm. Germanica*. The *Codex* (French Pharmacop.) mentions the plant, but does not give any rules for its preparation. In this country most wholesale druggists offer for sale a "fluid extract."

The extract of the Germ. Pharm. is prepared from the fresh plant *with the aid of heat*, and the "fluid extracts" from the *dry herb*. Inasmuch as the active principle of the various anemones is volatile, and is dissipated by heat and desiccation, we can only expect to find it in the tincture or distilled water made from the fresh plant. Modern pharmacy has abandoned these preparations, and only offers us (thanks to the pharmacopœia makers) extracts and fluid extracts that are decidedly unreliable and comparatively inert.

This explains why it is that the ancients, as well as Störck, Hahnemann, and Rademacher, found pulsatilla an active and useful remedy, while so many others (using inert preparations) have failed to obtain the effects ascribed to it by the former.†

**Therapeutical Uses.**—There appears to be a remarkable uniformity of opinion as to the sphere of usefulness occupied by the drug under consideration. Its successes have been mainly obtained in certain affections of the eyes, including some of those vaguely expressed by the term amaurosis, in certain diseases of the nervous system, in affections of the generative system, and of the stomach and skin. In the two latter classes of disease, it is probable that its effects are local, while in the others it is not unreasonable to suppose that they may be due to some specific affinity for the organs interested.

**Personal Experience.**—Our own experience with pulsatilla is confined to the treatment of three cases of dysmenorrhœa and several cases of epididymitis. These we will briefly relate.

#### DYSMENORRHEA COMPLICATING ACNE.

A. B., 17 years old, came under our care Nov. 24, 1876, for acne simplex of four years' standing. For several years has had disturbed menstruation, the periods not being equidistant and always preceded by severe pain, and often by hysterical attacks with slight convulsions. She has also profuse leucorrhœa continuing through the month. Treatment appropriate to her acne, together with tonics, was instituted.

**Dec. 26th.**—Ordered tinct. of pulsatill. nuttall., two drops in water, an hour before meals. To commence its use three days before she expected her menses, and to discontinue it when any appeared.

**Jan. 5th.**—Has menstruated since last visit, abso-

lutely without pain or inconvenience. Continue pulsatilla twice daily.

**Jan. 12th.**—Her leucorrhœa is less troublesome. Continue pulsatilla once a day.

**Jan. 25th.**—Has again menstruated without pain, but flowed for two days only.

**April 28th.**—No dysmenorrhœa since last date. Have not seen her since. As the special treatment for her acne has no bearing upon the point under consideration, it is unnecessary to detail it.

#### DYSMENORRHEA COMPLICATING ECZEMA.

C. D., 28 years old, married, came under my care March 12, 1877. Her eczema was of the dry, papular variety, situated chiefly about the mouth. For several years has suffered intensely at her monthly periods, the flow being scanty, and not lasting more than twenty-four hours. Leucorrhœa moderate. Treatment ordered for the eczema only.

**March 30th.**—Continued local and internal treatment for the eczema, and ordered her to take two drops of tinct. pulsatill. nuttall. for two days preceding her periods.

**May 8th.**—Returned to-day and says that she took the pulsatilla as ordered, and that she did not suffer at all at her next period. After that she lost her medicine and did not take any before her last menstruation, which was last week. On this occasion she had a little but not much pain. She was re-supplied with the medicine.

**Dec. 31st.**—Saw her to-day. There has been no return of dysmenorrhœa, but her periods anticipate, and her general health is not good. Advised her to consult a gynecologist or general practitioner.

#### DYSMENORRHEA AND ECZEMA.

E. F., aged about 40, unmarried, came under treatment Feb. 13, 1877. Eczema of three, and dysmenorrhœa of several years' standing. Pulsatilla, employed as in the other cases, failed to afford any relief whatever.

In the foregoing cases no vaginal examination was made, and it is of course impossible to state what the underlying pathological cause of the trouble may have been. I simply state facts as observed. Being neither a general practitioner nor a gynecologist, I leave the further investigation of this application of the remedy to those who have proper facilities for carrying it on.

#### EPIDIDYMITIS.

On resuming charge of my service at the Charity Hospital in April last, I resolved to test the efficacy of pulsatilla in gonorrhœal epididymitis. The first case treated was in the early acute stage and in an advancing condition. To this one tinct. pulsatilla nigricans was given in five-drop doses every two or three hours. This medication was followed by rapid increase of the pain and swelling, and after forty-eight hours the pulsatilla was abandoned and tobacco poultices substituted. The second case, also acute and advancing, was treated in the same way and with the same result. The third case had already, on admission, passed the height of the disease and was declining. Pulsatilla, in two-drop doses, appeared to influence the case but little one way or the other. The succeeding cases, seven or eight in number, were treated with pulsatilla in doses not exceeding  $\frac{1}{16}$  of a minim well diluted, and administered as a rule every one, two, or three hours, according to circumstances. In these cases an almost immediate improvement was manifest. The pain began to subside within a few hours, and was

\* BRISZ: Elements of Therapeutics, Am. Ed., N. Y., 1878, p. 24.

† The substitution in modern pharmacy of comparatively worthless for older and more active and reliable preparations can be illustrated by numerous examples taken from the French, German, English, and U. S. Pharmacopœias, and explains the decadence of many drugs which were formerly held in high esteem. It need not be a matter of surprise, then, that an effort was recently made, by those acquainted with the facts, to give the subject of the U. S. Pharmacopœia a thorough overhauling: an effort which, we regret to say, was defeated by the representatives of the medical profession who assembled in Chicago last June.



almost entirely gone in from twenty-four to forty-eight hours. In advancing cases the tumefaction came to a standstill coincident with the diminution of the pain, after which it gradually subsided. The cases ultimately recovered in fully one-third less time than I have ever seen by other treatment. During the use of the pulsatilla, poultices and all other remedial measures except support of the parts was avoided. The patients were permitted to remain in bed or to be up and about the ward as they chose. The last case that I report was in my private practice: X. Y., aged 34, called at my office July 19th, with commencing epididymitis following a gonorrhœa contracted a month previous. Has had gonorrhœa twice before, and "swelled testicle" once which laid him up for ten days. At the time of his visit I was myself confined to bed by illness, but ordered him to take three triplex pills, a sitz-bath, and to go to bed, and to inform me by note of his condition the next morning. July 20th, he writes: "I have been in bed all day and had three sitz-baths, but find that the swelling does not seem to go down." Sent him some pulsatilla, with directions to take a dose every three hours. July 21st, he writes that he is much better; the pain and swelling have almost entirely subsided, but that there have been two or three slight hemorrhages\* from the urethra. As I was still unable to leave my own bed, requested Dr. G. H. Fox to visit Mr. X. Y. and learn the state of affairs. Dr. F. did so, and reported that the hemorrhages were insignificant and that the epididymitis was substantially well, and that no further treatment was required.

*Conclusion.*—Pulsatilla appears to the writer to be worthy of further trial. It is requisite, however, that the tincture of the fresh plant, or its active principle, should alone be used. The preparation that I employed exhibited the chlorophyll bands distinctly when examined with the spectroscope. The dose of anemoin is 1 mg. (gr.  $\frac{1}{60}$ ) according to Gubler (*op. cit.*).

*Addendum.*—One of the most important questions before the profession at the present time is the next revision of the U.S. Pharmacopœia. The neglect with which this subject was treated by the American Medical Association at its last meeting is to be greatly deplored, as the probable result will be that the matter will be practically left in the hands of the druggists. The American Pharmaceutical Association have already appointed a committee to prepare a new pharmacopœia, which will probably be constructed in the interests of those who make it. These interests are far from being identical with those of the medical profession. At a recent meeting of the committee above referred to, it struck off from a list of proposed additions to the pharmacopœia a number of drugs, including pulsatilla, chelidonium. The only one of them besides pulsatilla with which I have had practical experience is chelidonium. This appears to act specifically on the liver, and in many cases is preferable to podophyllum, being less violent in its action. It was formerly held in high repute, but, like pulsatilla, its active principle is volatile, and the only official preparation of it is an extract (Ph. G.) prepared by heat. No wonder that physicians have long since abandoned its use. The pharmacopœia needs fewer extracts and fluid extracts, and more succi, the only representative of this class being the succus conii. The British Pharmacopœia contains, in addition, *succ. limonis, mori, rhamni, scoparii, and taraxaci*. The three former are preserved with sugar, the two latter with alcohol. The formulæ for these could, I think, be

modified to advantage by increasing the proportion of spirit in order to insure better preservation. Commercial interests, however, will probably stand in the way of an extended list of succi.

As success in treatment depends so much on the quality of the drug employed, it is certainly time that the profession as a whole gave some consideration to the matter, for they may rest assured that if they fail to look after their own interests they can hardly expect others to do it for them. The lack of appreciation that was shown at the Chicago meeting augurs ill for the future.

*Postscript.*—Since the foregoing was written, I have met with an article by Prof. Chas. A. Lee, M.D. (already mentioned), published in *The Journal of Materia Medica*, March, 1859, and bearing the following title: "Remarks on Some of the Pharmaceutical Preparations Employed in Medicine, especially of Solid and Fluid Extracts." The article in question is so thoroughly *en rapport* with what I have just written, that I take the liberty of quoting a few paragraphs:

"The uncertainty of medicine has been vastly increased in modern times by the varying qualities or even inert nature of the medicines administered. Medical art has, in innumerable instances, been held responsible for results of which it was wholly innocent, and for failures entirely unexpected. To this cause, much of the scepticism, both in and out of the profession, regarding the curative properties of drugs, is owing; so that many of the educated and intelligent class have come to believe that there is no art and science of medicine; that it is far preferable to trust to nature or homœopathy than to rational medicine for a cure. . . . It is not to be supposed that medicine can ever arrive at that certainty which we meet with in some of the other sciences. Still, much will be accomplished towards this end if we can only obtain medicines of uniform strength and purity. Is this possible at the present time? Are the drugs now in our market, either in their crude state or as products of the pharmaceutical art, generally reliable in the treatment of disease? Is sufficient attention paid to the circumstances which are likely to cause a deterioration in their quality, etc.?"

"When we consider the present relaxation in the enforcement of our drug inspection laws in the port of New York; the consequent extensive importation of spurious and sophisticated drugs;\* their frequent adulteration in the home market; the frauds of the drug-grinders and the wholesale and retail dealers, as well as the imperfect and unscientific means of preparation adopted by many manufacturers, we shall no longer wonder that medicine is regarded as a very uncertain science, and still more uncertain in its practical applications for the relief of the sick.

"And yet the case is not hopeless, nor is the physician unable to obtain reliable medicines if he will use the necessary care, and is willing to pay the necessary expense."† Dr. Lee then goes on to say that there are yet to be found "wholesale dealers, who have a

\* From *New Remedies*, Jan., 1878, we learn that the only drugs refused entry at the port of New York, during the past year, 1877, were the following: Gum guaiac, 42 boxes, 29 cases, 1 barrel; balsam copaiba, 25 drums, 7 barrels; jalap, 11 bales; squills, 3 bales; rhubarb, 5 cases; a-safetida, 4 cases; Iceland moss, 3 bales; hellebore root, 1 bale." Surely this is a paltry list of rejections, compared with the vast quantities of drugs yearly imported, and explains why Dr. Squibb is obliged to write in his last Price Current: "But to obtain good drugs, even at high prices, from which to prepare fluid extracts, becomes more and more difficult."

† The market value of the tincture of pulsatilla used in the before-mentioned experiments is \$3 per pound; fluid extracts of pulsatilla, however (having twice the nominal strength of this tincture), abound in the market at \$1.25 per pound.

\* Compare Dr. Lee's statement concerning the effects of *A. nemorosa* (*nida supra*). I subsequently ascertained that this patient was subject to hemorrhage on the slightest occasion.

landable pride in sustaining the credit of their establishments, who use every precaution to keep none but the purest drugs. . . . Such dealers know of but one quality of drugs, and that is the *best*, while others can supply all kinds to suit the pockets and wishes of customers."

Dr. Lee's remarks are pertinent, I think, to the present time, as I find on consulting the general prices current of several prominent drug-houses that aconite, belladonna, conium, and digitalis leaves are offered at from \$0.15 to \$1.25, and hyoscyamus leaves at from \$0.25 to \$2.50 per pound.

Dr. Lee's entire article can be perused with profit. It is to be regretted, however, that the master-mind that conceived it is now no more.\*

In closing, we ask, Have the matters herein referred to improved or retrograded during the past twenty years? This question can be best answered by those whose experience extends back through the last quarter of a century, and we trust that the appeal to them will not be in vain.

### MODIFICATION OF POLITZER'S METHOD OF INFLATION.

By J. OSCROFT TANSLEY, M.D.,

ASSISTANT SURGEON TO MANHATTAN EYE AND EAR HOSPITAL, AND  
VISITING SURGEON TO NORTHEASTERN DISPENSARY,  
DEPARTMENT OF EYE, EAR, AND THROAT.

IN a "Report on Otology," read by my friend, Dr. E. E. Holt, before the Maine Medical Association, June, 1877, are these words:

"Various modifications of Politzer's method have been suggested, to do away with the necessity of swallowing water, but they generally have been no easier of execution than the original method. For some time I have been using a method that does away with the swallowing process. I found, by taking a full inspiration, and filling my mouth and throat tensely with air, and then discharging the air-bag, as in Politzer's method, that air readily entered the tympanum."

Acting upon the doctor's suggestion, I have adopted this process at my clinics at the Manhattan Eye and Ear Hospital, and at the Northeastern Dispensary, also in my private practice; and having now used it daily for the past five months upon a large number of patients, I can testify to the fact that I have found it much more pleasant to my patients, and certainly more effective than the old plan, and during the time of trial I have met but one patient whom I have failed to inflate; and in several cases where the swallowing process failed, I succeeded easily with the modification.

At first I followed Dr. Holt's suggestion implicitly, and had my patients fill their mouths and throats tensely with air, but I have succeeded better by telling them simply to pucker up their lips, and blow from their mouths in the same way as they would to blow out a candle, and at the same time refrain from letting air pass through their noses. Then placing the nozzle of the air-douche in the nostril, and retaining it *in situ* with the thumb and first finger, I, at the moment of Politzer's ring, close the other nostril with the second finger, and usually succeed at the first attempt.

I prefer this method because it is more rapid and easier accomplished, and because I have more time to act; for when using water it is necessary to press the bag at the right instant; if too soon, then the velum has not closed the posterior passage, and if too late, the velum has regained its flaccid condition. In the modification there is all the time—during which the

Politzerization may be accomplished—that it takes to empty the lungs by blowing through the lips. I find it convenient to gauge the power of any inflation by having my patient blow soft or hard according to the necessities of the case; for of course the stronger they blow the more tightly is the posterior passage closed.

My patients prefer it because they have not to swallow water which their wants do not at the time require. I have often, when using the old method, had to send patients away from my office or clinic, or use the catheter—and this latter is not always convenient—without having accomplished my object, simply because I had, in my attempts, filled them so full of air and water that they felt unpleasant. This method also avoids the disagreeable, and sometimes severe pain, which the old plan occasionally causes, in the muscles of the neck and chest of anæmic, and phthisical patients; produced, I have reason to suppose, by the Politzerization catching the muscles during their performance of, and thus interfering with, the act of deglutition. I have had, already, several instances of the avoidance of this pain, and am now treating a patient who has previously refused treatment because of this objection to the swallowing process.

For children it is much more convenient, because it is easy to have them blow from their mouths, but difficult to retain water in their mouths, and have them swallow upon your giving the signal.

### POSSIBLE CASE OF IDIOPATHIC RUPTURE OF STOMACH.

By JOHN H. ARTON, M.D.,

ISLAND OF BERMUDA.

I WAS called on the morning of the 22d Dec., 1877, to see a colored man named Watts, who was suffering from tympanites.

He was over fifty years of age, and had never had a day's sickness in his life, except previous attacks of the same kind as that from which he now suffered. On those occasions he attributed his trouble to some indiscretion in diet, but this time nothing of the sort existed. He had been a pretty hard drinker.

I prescribed pills of assafoetida, with injections of "milk of assafoetida," and in a few hours he was relieved.

Again on the afternoon of the 26th I was called, as he was again seized. I found him much worse this time, and his abdominal muscles were so distended as to be perfectly paralyzed, and therefore incapable of expelling flatus.

As he could get no relief, I plunged the largest aspirator needle I had into his abdomen, and gave vent to a gale heavily laden with the odors of assafoetida. This relieved him, and I went home, only, however, to be recalled in a few hours by a messenger, who reported that he had again swelled up, and that something had "gone off" inside of him like a pistol, audible in the adjoining room. When I arrived, I found the man suffering agonies, and, as I found the percussion over the liver tympanitic, I concluded something had given way inside, and that euthanasia was all I could obtain for him. This I did by means of my hypodermic syringe. Death took place five hours after the report.

Post-mortem examination sixteen hours after death. —Rigor mortis not well marked. Emphysematous crackling obtainable all over thorax. Right inguinal hernia. Abdomen immensely distended; on incising it down to the peritoneum, that membrane ballooned through the opening, showing evidences of inflamma-

\* Obiit Feb. 14, 1873, æt. 71.



tion. This allowed much gas to escape, the stench being horrible. The cavity was two-thirds full of reddish serum. The stomach had burst, showing a slit four inches long on its posterior aspect. The gall-bladder was very much distended, and its coats hypertrophied. It contained over two quarts of inspissated bile. The hernia consisted of small intestine alone; it was not strangulated. At the splenic flexure of the colon a stricture was found five inches long. The walls of the stricture were over one-fourth inch thick, and the calibre of the gut about one-fourth inch in diameter. It was much dilated above the stricture. The liver was small and dry. The spleen was two inches by one inch and a half, and about half an inch thick. The gastro-splenic omentum resembled a piece of rope, or rather, it was not unlike the umbilical cord. The vessels, etc., could not be demonstrated as such by the naked eye. Kidneys not examined. Thorax not opened.

Such is the result of a hasty examination. Gray speaks of senile atrophy of spleen, but surely this was not such a case. The patient had always been well, showing no symptoms of the loss of this organ. Did the stricture cause the tympanitis? It had not produced constipation. I know the hernia had nothing to do with it, for I reduced it when I first saw him, and at the autopsy nothing like strangulation appeared. He never vomited, nor complained of pain proper until after rupture.

## Progress of Medical Science.

**DIVISION OF THE TENDO ACHILLIS IN FRACTURE OF THE LOWER END OF THE FEMUR.**—In fracture of the lower third of the femur Dr. M. A. Morris, of Harvard, Charlestown, claims that the tendency of the lower fragment to tilt backward into the popliteal space is caused by the contractions of the muscles arising from the condyles of the femur, and is exaggerated by the forced extension which is so very generally employed in the treatment of these fractures. Dr. Morris overcame this tendency to displacement by division of the tendo achillis, as recommended by Mr. Bryant in his work on surgery. In this case the fracture was situated about two inches and a half or three inches above the articular extremity, its direction being upwards and backwards; there was also a longitudinal fracture separating the condyles, which were freely movable. When extension was made, the upper extremities of the lower fragments projected backwards, and could not be kept in position. Judging that this was caused in great part by action of the gastrocnemius muscle, it was proposed to divide the tendo achillis. The operation was accordingly performed, and the deformity did not recur. The case was then treated in the ordinary manner, and the patient made a good recovery. The advantages claimed are, that it renders possible a better position, thereby accelerating union, and it lessens the liability to shortening, protracted confinement to bed, and ankylosis.—*The Boston Medical and Surgical Journal*, November.

**A CASE OF EXCISION OF THE HUMAN SPLEEN FOR HYPERTROPHY.**—Dr. G. B. Simmons read before the Sacramento Society for Medical Improvement, an account of the first case of splenectomy reported in America. In searching the literature of this operation, he finds but fifteen cases; the first was by Zaccarelli in 1544, and was said to have been successful. Since then there have been but two successful cases, both of which were operated upon by M. Pean, of France. The patient on whom Dr. Simmons operated

was under observation for nearly three years, but during this time the progressive growth of the tumor seemed to be in no way affected by any of the many plans of treatment which had been suggested and tried. At this time he demanded operative interference, and splenectomy was accordingly performed on the sixth of June, 1877. The incision was made in the abdominal wall near the linea alba, from four inches above to four inches below the umbilicus. There was some fluid in the abdominal cavity, and some recent adhesions to the intestine which were slowly separated, and the bleeding points secured by fine, carbolized ligatures. The organ was then turned out, and strong adhesions to the diaphragm were found, which occasioned some difficulty. The pedicle and gastro-splenic omentum, including the larger vessels, were ligatured in sections; the ligatures cut close and returned. The final removal of the organ was effected without allowing any blood from the incised splenic vessels to enter the cavity. The ascitic fluid was sponged out, and, as there seemed to be some slight oozing, a drainage-tube was inserted into the lower end of the wound, the incision closed by sutures, and dressings applied as usual after abdominal section. He recovered well from the effects of the ether, but soon began to retch and vomit, and these efforts were followed by flow of bloody fluid through the tube. In spite of all endeavors, he gradually sank, and died from hemorrhage two hours and a half after the completion of the operation. No post-mortem was obtained.—*Pacific Medical and Surgical Journal*, Dec., 1877.

**THE MUSCULUS CHOROIDEÆ.**—With the object of examining the separate cells forming the capillary vessels of the choroid, Drs. Hällsten and Tigerstedt injected a one per cent. solution of nitrate of silver into the vessels of the eye of a rabbit, through the carotids. To obtain the transudation of this solution, and thus a more complete impregnation of the silver, they filled the vessels completely with the fluid, using considerable pressure, and allowed the preparation to remain for 24 hours in a dark room. The choroid was then submitted to the ordinary methods of examination. They were thus enabled to define the limits of the endothelial cells which form the lining of the capillary vessels of the choroid, and to demonstrate, in opposition to Eberth (Stricker's Histology, p. 208), that these vessels are composed of cells.

During the course of these researches, however, another entirely unexpected formation was discovered. In preparations of the choroid, obtained in the manner described above, they observed figures, due to the silver, representing thin, slender, fusiform cells, denuded at the margins and having an elongated oval nucleus. These cells, in a single layer, formed a continuous membrane, covering the entire external surface of the capillary vessels over the entire extent of the choroid. Careful examinations made with various other methods left no doubt in the minds of the authors that these were smooth muscle cells. This was still better demonstrated by the fact that they were able to provoke contractions in pieces of the choroid by the irritation of a heated metallic needle.

The authors propose the name of the *musculus choroideæ* for this muscle. In the rabbit it extends in a simple, uninterrupted layer from the foramen opticum of the choroid to the ora serrata, and then passes over into the ciliary muscle. The fusiform elements are disposed in such a manner that they follow by preference the more considerable external blood-vessels. Their direction is therefore principally meridi-

onal, except that in the vicinity of the optic foramen they are in part circular, becoming completely so at the ora serrata. This circular layer passes at the ora serrata immediately over into the external circular portion of the ciliary muscle. The authors were unable to discover any connection between the muscle of the choroid and the iris muscle. It is finally mentioned that this muscle is present in the eye of man, the dog, cat, and pigeon. Further researches are being made.—*Nordiskt Medicinskt Arkiv. Bl. 9. H. 3, 1877.*

**PRIMARY OTITIS EXTERNA DIPHThERITICA.**—Another case of this rare disease is reported by Dr. Kraussold, of Frankfort. The patient, a woman *ætat.* 22, had suffered for several weeks from a slight inflammation of the right external auditory canal with serous discharge, when she was suddenly seized with severe pain in the right ear, accompanied by tinnitus, deafness, a feeling of fullness, itching, and symptoms of general derangement. No cause could be discovered for this attack. The auditory canal was nearly filled with a grayish-white mass, which on account of the great tenderness of the part could not be removed either by syringing or the forceps. On the second day a portion of this mass was removed with the forceps, leaving a very red, swollen, and partially excoriated spot. On the next day this spot was again covered with a similar deposit. On the fifth day a cast of the deeper portions of the tube, about half an inch in length, was removed with the forceps. The entire posterior portion of the canal was then found to be red, swollen, excoriated, and bleeding in spots. After three or four days this part was again covered with membrane, which was extracted after seven days. At the present time recovery is nearly complete, there being still a slight purulent discharge and some retraction of the drum. The cast removed on the fifth day consisted of a grayish-white, dense, elastic mass; microscopically it was composed of delicate, reticulated fibres, with a few scattered round cells, and pus corpuscles and epidermic cells at the periphery. No typical micrococci groups were found. There was a slight epidemic of diphtheria in the city at the time this case occurred, but a direct infection could not be demonstrated. In this case the swelling and excoriation produced by the preceding simple inflammation of the auditory canal prepared the tissues for the reception of the diphtheritic poison. Without this preparation it is probable that primary diphtheritic inflammation could not have occurred in this situation. Secondary diphtheritic inflammation of the middle ear may extend through a perforation in the membrana tympani into a healthy external auditory canal, but no case has yet been reported in which the disease appeared primarily in this canal as long as the epidermic covering remained intact.—*Centralblatt für Chirurgie, No. 38, 1877.*

**AMPUTATION OF THE RECTUM.**—Dr. Huston Ford, of St. Louis, read before the St. Louis Medical Society an account of a successful operation for the removal of a prolapsed rectum. The prolapse had existed for about two years, and at the time of operation measured from four to four and a half inches in length, and two and three-quarters inches in diameter at its base. The exposed mucous surface was covered with a glairy secretion, but, in spite of this protection, extensive ulcerations had occurred. The case was not a promising one, but, as surgical interference alone proffered any results, it was undertaken. Two operations were performed: at the first, four folds of mucous membrane were ligated, the mass returned to the cavity of the

pelvis, and four wide strips of flabby integument removed from the margin of the anus. For a month, while the patient remained in the recumbent position, the prolapse did not return, but, as soon as he was allowed to go to the water-closet, the straining caused the young cicatricial tissue to yield, and the operation proved a total failure. At the next operation ligatures were passed, by a species of transfixion, so as to completely constrict the prolapsed tissue, without closing the lumen of the gut. The strangulation, however, was not complete, and two days afterwards it was found necessary to apply eleven elastic ligatures. These answered the purpose, and five days later the sphacelous mass was removed. During this proceeding the straining of the patient forced a mass of intestines through the end of the stump. This was returned with considerable difficulty, and the rent securely stitched. Two weeks later there was a prolapsed portion of bowel, quite healthy in appearance, about half the size of a hen's egg. The site of the intestinal extrusion had soundly healed. There had been no rise of temperature. Within two days the small prolapse had returned spontaneously and had not reappeared, although two months had passed up to the time of writing. About nine inches of gut were removed, which probably included the entire rectum. Dr. Ford thinks there is not much danger in the operation, and in similar inveterate cases it may be practised with impunity.—*St. Louis Medical and Surgical Journal, January, 1878.*

**PLEURISY OF THE APEX.**—Dr. J. Burney Yeo, of King's College Hospital, read, in the Section of Medicine, at the meeting of the British Medical Association, a paper on "Pleurisy of the Apex," in which he calls attention to this, as an affection but rarely recognized, although not of uncommon occurrence. The characteristic symptom in these cases is cough. "In a person in apparently good health (generally a young woman), with no marked fever, with no or with slight emaciation, with no dyspnoea, with no mucous or crepitant râles anywhere to be heard, with no expectoration, you have a persistent, harsh, dry, shallow, incomplete cough; generally jarring and shaking the patient a good deal, so as to produce often painful fatigue of the inspiratory muscles, and much injection of the face." What is especially noteworthy about the cough is its shallow, incomplete character. It is suddenly cut short without effecting its object, if, as is generally the case, the object of a cough be expectoration. Friction-sounds are present, but are limited to the supra-spinous fossa, or to the upper third of the dorso-scapular region. Dr. Yeo has never seen a case in the male; probably because they do not wear low-necked dresses. The treatment is continued and repeated counter-irritation, either in the shape of a flying-blister, or of the strong linimentum iodinii. In some cases benefit is derived from small doses of iodide of potassium. The ordinary remedies for the relief of cough may moderate the violence of the paroxysms, and so relieve somewhat the jarring of the chest. The disease is very prone to recur.

The paper concludes as follows: "I have noted cases of this kind now for some years, and, as I have never seen attention called to them, I have thought it might be useful to direct the attention of this association to the subject; believing that as they become better known, we shall hear less of 'hysterical' and 'stomach' coughs, and that 'pleurisy of the apex' will be recognized as a distinct form of pleuritis, with a characteristic clinical history."—*British Medical Journal, Nov. 24, 1877.*



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE NATIONAL MEDICAL LIBRARY.

IN the estimates of appropriations required for the service of the fiscal year ending June 30, 1879, submitted by the Secretary of the Treasury to Congress at the commencement of the present session, we find the following item on page 160: "Printing and binding Catalogue of the Library of the Surgeon-General's Office, 3,000 copies of volumes one and two, including stereotyping, \$25,000." In a note it is stated that "the work is not a mere catalogue in the ordinary sense of the term, but an analytical index of authors and subjects, designed to render conveniently accessible to the medical profession the literature of each subject connected with medicine and hygiene."

The character and value of the catalogue referred to are probably well known to the majority of our readers. At first growing out of a necessity for a catalogue of the National Medical Library, it expanded, under the supervision of Librarian, Dr. J. S. Billings, into a universal medical catalogue, an index, as it were, of the medical literature of the world. With the vast amount of material which it was necessary to possess to render the idea of such a catalogue practical, the arrangement of subjects and authors had to be systematized with the greatest care for easy reference. Specimen fasciculi have been issued, and suggestions invited from the medical press of this and other countries, with the result of the adoption of a plan which so effectually combines simplicity with utility that no improvement upon it seems possible. The work necessary to such an end has been immense, and is a lasting monument to the industry and talent of the Librarian as well as to the Surgeon-General, the weight of whose official sanction and encouragement was thrown in the balance. Nowhere has such a comprehensive catalogue been attempted, nor is there likely to be for many a year to come. It is, however, hardly necessary at this time to state any special reasons why the

catalogue is of value to the medical profession and why its benefits should be permanently secured by a sufficient appropriation for its publication. The leading men of the profession are unanimous upon these points. As an index of such an opinion we take occasion to refer to the memorial of the Committee of the Medical Society of the County of New York, which is published in another column, and which gives, in a very explicit and straightforward manner, the reasons why governmental aid should be given to the project.

The question as to whether the printing of the work by the Government Printer shall be authorized by Congress is now before the Committee on Printing of the House. As economy is the order of the day, this committee is examining closely the question of cost, which at first sight seems very large. It appears that the entire work will make from seven to ten royal octavo volumes of 1,000 pages each, depending on whether it includes subjects only, or both subjects and authors. The total cost will, therefore, be about \$125,000, but this expenditure will be spread over a period of from four to five years, as it will probably be found impossible to print over two volumes a year.

It is quite pertinent not only to ask if the work is worth the cost, but if the cost can be reduced. In reference to this last point the first suggestion would probably be to reduce the number of copies of each volume to be printed. If but 1,000 copies are printed, the cost would probably be reduced about \$2,000 per volume.

If the work be distributed gratuitously, the demand for it will certainly be very large, at least equal to that for the Medical and Surgical History of the War, of which 10,000 copies were found to be hardly sufficient. But if the gratuitous distribution be confined to libraries, and private physicians be permitted to purchase the volumes at the cost of press-work, paper, and binding, then 1,000 volumes will probably be sufficient for the gratuitous issue, and from the stereotype plates, to be preserved, a supply can always be furnished in proportion to the demand. Even under this arrangement the cost to the government of the entire work would be not far from \$100,000, but we still maintain that the end fully justifies the means.

It has been asserted by at least one member of Congress that the catalogue, although valuable as a reference, is practically useless outside of Washington. This is in part true and in part false, but is hardly an argument sufficiently strong to be used against the project of publication. If the library was an ordinary one, the objection might apply, but as it is the most remarkable and complete of its kind anywhere, and contains works which are exceedingly rare and valuable, the necessity for a full and complete catalogue becomes proportionately apparent. It is now a national library, and as such its natural home is in Washington. Nowhere else could the same number of volumes be collected together for a like purpose,

and with such a gratifying result. We do not believe that a consultation of desirable works by responsible parties will be hindered by the present location of the library, inasmuch as some measures can and will undoubtedly be taken to obviate all such objections. The problem to solve is, how to extend the usefulness of the library by publishing its treasures to the world, and not to contract its sphere by objections which would have equal application to every great library in the world. It is quite proper in this connection to call attention again to the fact that the catalogue, from a medical point of view, is a universal one, and comprises an index of the leading medical libraries of the larger cities of this and other countries, as well as an index of the files of many private libraries. Finally, considering the great advantage which the publication of this catalogue will be to the profession, and through the latter to the public at large, it is asking a comparatively small amount from the government. We hope, then, that the committee will report favorably, and the necessary appropriation be made. In the meantime we think that each one of our readers should exert his influence upon the member of Congress from his district to secure the end in view, that no false idea of economy may stand in the way of one of the greatest benefits which can be conferred upon the profession. As a body we have asked very little in the shape of government assistance, but in this matter the interests at stake are too important to be passed by without a respectful and earnest appeal on behalf of the catalogue in question.

#### LIBERALISM IN HOMŒOPATHY.

AT the last meeting of the Homœopathic Medical Society of this county, an unsuccessful attempt was made to rescind the resolution passed on a previous occasion bearing upon liberalism in homœopathy. As might have been anticipated, the debate was an animated one, and many remarks were uttered which might as well have been unsaid. While a fine opportunity was given to the liberals for explaining their position, and the reason why they voted for the resolution, there was, on the other hand, a melancholy, if not ludicrous, exhibition of bigotry and dogmatism on the part of their opponents. In fact, we are led to the conviction, by the arguments offered on the part of the latter, that their system has no special reason to be proud of their advocacy. But every association possesses some turbulent and truculent members who delight in the position of a conspicuous minority. It would appear that the large majority of the members of that sect in this city and throughout the State desire to be considered physicians rather than homœopaths, and to avail themselves of all, rather than a portion only, of the resources of medical science. That this is the only proper ground upon which men claiming to be scientific should stand is self-evident.

#### AN ANTHROPOLOGICAL STUDY.

THE recent importation of two living specimens of the chimpanzee (*Troglodytes niger*), and the subsequent death and dissection of one of these animals, have presented a favorable opportunity for practically testing many statements of naturalists, bearing on the relative structural differences between the anthropological apes and the human race.

The subject has been so fully discussed of late years that all are familiar more or less with the general principles involved, and even with the leading facts developed during the prolonged investigation. Darwin concludes his work on the "Descent of Man" with the observation: "Man (in spite of his exalted powers) still bears in his bodily frame the indelible stamp of his lowly origin." It has been, therefore, the study of naturalists to trace in the highest varieties of the order *Quadrumana* such special features that approach in organization to certain structures that characterizes man, thus bridging over the chasm that separates the human race from the brute creation.

A pair of common chimpanzee (*Troglodytes niger*) were recently consigned to Messrs. Reiche Brothers, of this city, and placed for exhibition at the New York Aquarium. They were probably about two years of age, and were gentle and docile in their habits. During two weeks the male specimen showed signs of ill-health, during which symptoms of tuberculosis were developed; colliquative diarrhœa afterwards set in, which so exhausted the animal that, for the last few days of its life, it was too weak to be capable of much movement. It was sedulously nursed by Dr. Dohrner, the Superintendent of the Aquarium, but this inveterate constitutional disease (the scourge of our menageries), defied all the treatment, and the chimpanzee died.

Thirty hours after death a post-mortem examination was made by Dr. Edward C. Spitzka, in the presence and with the assistance of many eminent surgeons of this city. The report of the autopsy, which was presented to the Neurological Society at its recent meeting, presents some very interesting features. The body was found emaciated, the omentum deprived of its fat, the intestines the seat of a catarrhal enteritis, and the mesenteric glands tuberculous, enlarged, and cheesy. The lungs revealed several tubercles, some of which had given rise to reactive inflammation, and the pia mater of the brain over the Sylvian fissure contained numerous gray and opaque tubercles of different dimensions. The arachnoid fluid was increased in quantity.

Speaking generally, all the organs strikingly resembled those found in the human subject, and great interest was centred on the examination of the brain. When this organ was removed, all present were struck by its great similarity to the human brain, this being especially apparent when the base was examined.



The cerebrum was richly convoluted and overlapped the cerebellum to the extent of one-third of an inch. Many professional gentlemen present observed that they would be unable to distinguish this brain from that of a human infant.

Mr. Reiche, the owner of the chimpanzee, permitted Dr. Spitzka to retain this interesting organ, and also the spinal cord, and both were placed in preservative liquids, subject to a future detailed examination, which the doctor will make, the result of which will be published on a future occasion.

The following general description will be read with interest: The general outlines, proportions, and dimensions of the brain of this chimpanzee are those of a new-born human infant, as might be inferred from the size and shape of the cranium.

There are, however, several distinctive features, which become apparent only on careful examination. Although the cerebrum overlaps the cerebellum, and consists of the same lobes, is as rich in convolutions as the brain of a bechuana, possessing a well-developed island of Reil, it also has an operculum for the occipital lobe, which is not found in the human subject. One of the most important human-like features in this brain is the absence of a trapezium, and the presence of the olivary bodies. Now, although a rudimentary olivary body exists in the lower mammalia, yet it causes no perceptible prominence of the medulla; such prominence is first observed in the baboon, but in the chimpanzee it is equally full and large as in the human being—a fact in full accordance with the high development of the lateral lobes of the cerebellum, for the olivary body keeps pace in its development throughout the animal kingdom with the development of the cerebellar hemisphere. The island of Reil, whose relation to the higher faculties is strongly upheld by the prevailing physiological belief that it is subservient to the faculty of speech, was also large and well developed.

Dr. Spitzka intends to make this brain the subject of a careful microscopic study. He is now engaged in a series of similar investigations on the brains of various rare species of animals, and believes he can demonstrate that the same plan of development exists, both in the vegetative organs and the skeletons of the ascending scale of vertebrate animals, as in the brain.

It may be interesting to observe that the similarity between the brain of the young chimpanzee and a young human child gradually diminishes with the age and growth of the respective specimens; for while the human brain grows progressively to beyond the age of puberty, at least in the Caucasian and Mongolian races, it becomes arrested in the case of the chimpanzee, on account (as Dr. Spitzka observes) of the closure and non-expansive growth of the brain-case. Thus, while the brain of an infantile chimpanzee and of a newly-born human child do not

differ greatly in volume, the adult chimpanzee has a brain which is exceedingly small when compared with that of a grown man.

#### THE NEW MEDICAL BILL.

A NEW medical bill, emanating from the *Comitia Minora* of the Medical Society of the County of New York, has been presented to the Legislature. It provides for the registration of all persons now lawfully practising physic and surgery in this State, and prohibits any one from hereafter commencing practice in this State unless he shall have a degree of doctor of medicine. The act appears to be carefully drawn, and the provisions for its enforcement sufficient. According to the laws now in existence in this State, persons can be licensed to practise medicine by the censors of any of the county societies in the State. As there are now no less than sixty-four counties, and each county entitled to three societies, it will be seen that there are nearly two hundred licensing boards in this State. That grave abuses are inevitable under such a state of affairs is quite apparent, and any attempt to bring order out of the chaos should receive the hearty endorsement of the profession.

#### THE NEW PHARMACOPOEIA.

CONCERNING *pulsatilla* and other matters, Dr. Piffard's article in this issue is very much like a woman's letter—the most important part is in the *postscript*. His account of the drug is interesting, and will be new to many; his experiences with it must be controlled by the observations of others; but his addendum and postscript merit the careful attention of every reader.

### Reports of Societies.

#### NEW YORK ACADEMY OF MEDICINE.

##### SECTION ON OBSTETRICS.

*Stated Meeting, February 18, 1878.*

DR. SALVATORE CARO, CHAIRMAN.

##### VICARIOUS MENSTRUATION.

THE CHAIRMAN read a brief paper upon the above subject, and gave the history of a case in which the hemorrhage occurred from the gums. The patient was 23 years of age; began to menstruate at the age of sixteen; had an attack of intermittent fever in September; menses disappeared, but did not return when the malarial fever was arrested. She soon began to suffer from toothache, which was accompanied by some hemorrhage from the gums. Relief not being obtained, in July following she had the tooth extracted at the time it was giving her great discomfort; blood came freely from the cavity, and the bleeding resisted all means, such as plugging etc., for its arrest, but finally ceased. In August bleeding from the gum returned; application was made to a dentist for

relief; none was obtained, but the bleeding again ceased at the end of four days. In September the bleeding from the gum returned; she applied to a physician; no special relief was obtained, but hemorrhage again ceased at the expiration of four days. In October the patient came under Dr. Caro's care. It was regarded as a case of vicarious menstruation, and the patient was placed under the following plan of treatment:

She belonged to a religious order that imposed protracted and severe religious duties; it was advised to abstain from all these; to take plenty of good food; to wash the mouth daily, for about ten days prior to the time for the occurrence of the hemorrhage from the gum, with tincture of myrrh and water; to take thirty drops of the fluid extract of ergot every four hours; and to apply mustard drafts to the popliteal region.

In October she bled a little from the gum and soiled one napkin. The treatment was repeated in November, but not with as favorable results, for no blood was discharged from the uterus, and the bleeding from the gum was more profuse than formerly.

In December the month-wash and mustard revulsives were repeated, and ten-drop doses of the tincture of iodine given in Spanish saffron tea; menstruation returned, without hemorrhage from the mouth, and lasted five days. In January the patient menstruated normally; duration, four days. In February the menstrual function was performed in a normal manner; her health seemed perfect; duration of discharge four days.

DR. ISAAC E. TAYLOR remarked that Dr. Caro's case was important as illustrating the effect produced in the female economy by malaria. Malaria exerted a powerful influence not only with regard to amenorrhœa, but also with regard to metrorrhagia, affections of the kidneys, stomach, intestines, etc., etc. Hence, the disturbances of the nervous system and the development of neuralgia, toothache, gastralgia, etc. The effect produced upon the system by malaria during pregnancy was much more marked than under other circumstances. Within the past year he had seen six cases of gastralgia dependent upon malaria, and all occurred in pregnant women. Now, when menstruation ceased because of the action of malaria in the system, as it seemed to in the case reported by Dr. Caro, hemorrhage might occur at any point where the blood-vessels were in a weakened condition, whether it was in the mouth, upon the arm, or upon the top of the head. Dr. Taylor referred to one case in which the vicarious hemorrhage occurred from a patch upon the arm; also to another, in which it occurred from a broken surface upon the top of the head. Mention was also made of a case in which hæmatemesis was substituted for menstruation. The uterus was measured and found to be  $3\frac{1}{2}$  inches in depth. A sound, having a large end, was introduced a few times prior to the time for the occurrence of menstruation; the uterus was increased in size to a little over four inches, owing to the normal ductility of the organ; menstruation came on, and then the uterus was very much reduced in size; a process of involution, as it were, was accomplished. At the end of two months the menstrual flow was fully established. If that plan of treatment was adopted, the sound must be used with the greatest gentleness and care.

DR. HUBBARD referred to a case in which the patient was supposed by her physicians to have hemorrhage from the lungs, because at each menstrual

period she expectorated blood. The expectoration of the sanguineous fluid lasted three or four days; she was then entirely free from it until the next menstrual period, and the phenomenon continued until near the close of her menstrual life. The woman was in very good health, and no treatment was introduced except that directed to her hysteria.

DR. CURCH mentioned a case in which hemorrhage occurred monthly from the umbilicus; but the history was incomplete, from the fact that circumstances were such as to forbid complete examination. There was no menstrual discharge per vaginam, and the doctor was unable to say whether or not a vagina existed.

Reference was made by several members to cases in which existing discharges, such as discharge from the ears, from ulcers, etc., etc., were aggravated at the menstrual period.

#### PLACENTA PREVIA WITHOUT HEMORRHAGE.

DR. ISAAC E. TAYLOR related the history of a case in which the placenta presented, yet delivery was accomplished without hemorrhage and almost without pain.

The woman was æt. 25, not very robust, and at nearly full term presented an appearance as if only in the fifth or sixth month of pregnancy. The doctor was called to decide whether or not the child was living. Neither placental murmur nor fetal heart could be heard. By external manipulation the conclusion was reached that the head of the child was in the cavity of the pelvis, thus accounting for the apparently small size of the child. The doctor called again at about four o'clock, when, on examination, the neck of the uterus was found to be about one inch in length, and undilated; pains very slight and irregular; and the finger came in contact with a globular mass, which was quite soft as felt through the uterine wall.

At  $6\frac{1}{2}$  P.M. Dr. Taylor was summoned, and found the pains quite regular, the neck dilatable so as to permit the introduction of the finger, and a very soft substance was felt; the ordinary show was absent; there was quite an abundant secretion of mucus; and he was unable to determine the nature of the soft mass.

At about 7.20 P.M., with a single expulsive effort, the placenta came down, child and all, and the labor was completed without loss of blood. On examination the head of the child was found to be hydrocephalic; the placenta was  $3\frac{1}{2}$  inches in width and in a complete state of fatty degeneration.

DR. O'SULLIVAN mentioned a case in which there was placenta previa, but no hemorrhage, and when labor was completed the placenta was found to be the seat of complete fatty degeneration.

The Section then adjourned to the dining-hall, where the members and guests, on invitation by the Chairman, partook of a bountiful collation.

A MEDICAL BLACK-BOOK.—The profession in Antwerp has a black-book, in which the names of all persons who neglect to pay the fees of their physicians are recorded. The laity is allowed from January to November in which to pay their doctor's bills, but any one still in arrears, without sufficient reason, on the 30th of November, is ruthlessly posted in the black-book. A revised edition of the book is published every year, and furnished to the members of the Medical Society.



## Correspondence.

## COMMITMENT OF THE INSANE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I have read with much interest your articles on the Commitment of the Insane, in which you speak of the case of Miss Dickie. As a member of the Commission "*de Lunatico Inquirendo*" in the case, and being familiar with all its details, I desire to call your attention to several inaccuracies in your articles, and to state a few facts which you may have overlooked.

The most noticeable inaccuracy is the statement "that the very appointment of a guardian so effectually stultifies the ruling of the court that the case, as a leading one, must certainly have a short life." I am in a position to speak authoritatively upon this point, and would most respectfully state that no guardian has been appointed, such a procedure not being deemed necessary by the judge, and being only suggested by the sheriff's jury. In regard to the statement "that the patient was undoubtedly insane, and would have been deemed a proper object for asylum treatment," I would respectfully differ from you in opinion. I have watched the case carefully, and state that the weight of evidence was undoubtedly in favor of sanity, and in the language of the learned Judge Brady, "applying the tests which human ingenuity has devised, the declaration was legally and properly made that Miss Dickie is neither insane nor an imbecile." And I believe his Honor was fully justified in discharging the supposed lunatic from all custody and restraint.

You state "that one of the gentlemen who constituted the original commission had special facilities for the study of cases of insanity by an experience of several years as medical officer in an asylum." I believe this is inaccurate, neither of them having held any such position. If the testimony elicited on the trial is to be relied on, your statement, "that the treatment adopted in Miss Dickie's case was in all respects justifiable and orthodox," is also open to criticism.

You speak of the jury as "simply giving the benefit of the doubt to the plaintiff." On this point let me say that I feel confident the jury to a man gave the verdict unhesitatingly, and that none of them had doubts for a moment. The jury, having heard all the evidence, said Miss Dickie was not insane! The law gives them the power to say so, and they of course take the responsibility, which, in this instance, I beg to say, I do not consider misplaced.

Now, what are the facts? First, Miss Dickie is not insane. Second, she is not under guardianship at all; she is her own mistress, and a free agent. The fact that she is not, and has not been insane, shows error in the system relating to the commitment, care, and cure of suffering lunatics. All the logic from the north to the south pole would not change this.

In conclusion, let me state that there certainly does "seem to be enough obstacles standing between the patient and the medical superintendent of the institutions for the insane," yet they seem to be easily removed, else there would hardly have been such a case as Miss Dickie's, and the community would not be calling for further legislative enactments to protect them from a similar experience.

Respectfully yours.

E. BRADLEY, M.D.

1 WEST 24TH STREET.

[We are much obliged to Dr. Bradley for calling our attention to the above points. As far as the question

of sanity is concerned, we of course accord to him the right of holding a different opinion from us. If his position is the proper one, then many collateral circumstances depending upon it are untenable from our standpoint. We are happy to be informed that no guardian was deemed necessary by the judge. The gentlemen to whom we referred as constituting the original examiners we presumed to be Drs. Alfred C. Post and C. W. Packard, and applied our remarks accordingly.—Ed.]

## ON VACCINATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The subject of vaccination is acquiring quite a prominent place in your pages; but still nothing beyond what it deserves. Permit me to make a few very brief remarks upon *humanized vaccine lymph*.

Seeing the inestimable benefit of vaccination to suffering humanity, it is surprising that any ignorance or prejudice regarding it should exist. Dr. Henry Austin Martin, in a candid and trenchant article in the RECORD for January 26th ult., refutes as well as exposes part at least of the ignorance which obtains, even in the minds of some medical men, and the carelessness with which vaccination is performed sometimes. To perform vaccination properly is a very simple and safe proceeding with those who thoroughly understand it; that it is at least, a highly dangerous operation in the hands of ignorant or careless persons is beyond question.

I know of no advantage which bovine lymph possesses over humanized, if due care be used in the selection of the latter. But as long as the present practice of buying and selling "crusts," the source, purity, and efficacy of which is, to say the very least, doubtful, prevails, so long must the preference be given to bovine lymph, although personally I am not in favor of its use. As yet I have only used humanized lymph, and so far have every reason to feel perfectly satisfied with its results.

The "dried crust" or scab from a vaccine sore may be considered a morbid product to be got rid of by the system as speedily as possible. It must be difficult, if not impossible, to obtain a "crust" free from blood-corpuscles, even though in a dried state. Lymph, fresh and fluid, from the vesicle from the fourth to the eighth day, might be looked upon as rather in the light of a *quasi*-physiological product. To my mind all the danger and difficulty with humanized virus lies in the use of the "dried crust" (dissolved just before use) instead of the fluid lymph. Why the "crust," which contains only a small percentage of dried lymph, should be employed in preference to the pure, fresh, and liquid variety, I cannot understand. This "crust" has been dried by the rupture of the vesicle and escape of the contents, together with the evaporation caused by the body heat and the action of the air. Its elements must be more or less decomposed. How partially decomposed blood-corpuscles, leucocytes, epithelial scales, etc., when introduced into the circulation of a child or adult, can be free from danger is a mystery to me. The wonder is, not that a few accidents have happened (perhaps all the accidents have not been reported), but that more do not occur.

Vaccination from arm to arm is, perhaps, the best of all methods. The only excuse for the use of the "dried crust" is the facility of preservation, when lymph must be kept longer than ten or fifteen days. But this is a paltry, even contemptible excuse, when it can be preserved in a fluid state for a much longer

time in hermetically sealed capillary tubes. Lymph so preserved retains its vitality and vigor unimpaired for almost any length of time. I have kept it for *seven and a half months*, at the end of which time it was pure, fresh, fluid, perfectly safe and active. I never use the crust, and never had one preserved for me, though offered seventy-five cents each for them. Their use, to my mind, is fraught with danger, and I order them thrown away or burned.

After vaccinating a patient, I am careful to wash the lancet thoroughly and immediately—always to keep it clean and free from any approach to rust. When the lymph is carried on "ivory point," I wash them carefully in warm water, and dry them thoroughly before setting them aside. I do not use a capillary tube more than once. They are too small to be properly cleaned. I always preserve my own lymph, taking my supply from a perfectly healthy child, between the ages of six weeks and six months, and can, therefore, always answer for the *quality of the lymph used*. I usually vaccinate between the ages of two and three months—before the process of denaturation commences, and at an age when children suffer least from the constitutional effects of vaccination.

With these precautions faithfully adhered to during the last six years, I have not had a single bad symptom following vaccination, although I have practised it more freely during the winter than during the summer months; and that, too, when both scarlatina and diphtheria—especially the former—prevailed extensively in this city during the past four winters. In secondary vaccinations I make two sores, but in primary vaccinations I aim at securing three or four vesicles. Four insertions, each as large as a silver dime piece, on the front of an infant's arm, must be so close that the normal inflammatory areolæ merge into one another. Still, I never saw any approach to erysipelas. I never had any sloughing; never an abscess; never any untoward effect. On no single occasion has the vesicle been slow or delayed in forming (as sometimes happens, I understand, when "crust" is used), and from the fourth day was quite perceptible. The vesicles invariably matured on the ninth day, and began to subside on the twelfth day. Out of one hundred cases, of which a correct and careful register was preserved by me, there were only two failures to take. These were secondary vaccinations in grown-up children. In these one hundred cases the ages varied between six weeks and thirty-seven years. The majority were very young children, some of whom were weakly, delicate, or puny; some were even syphilitic. Each child had, on an average, three sores. In all, even in the syphilitic (congenital) cases, which I watched with increased interest, the vaccination pursued a perfectly normal course, the scabs falling off about the twenty-sixth day. My method of making the insertion is by numerous very fine vertical and horizontal scratches through the cuticle.

If medical gentlemen will preserve their own lymph in a fluid state, in hermetically sealed capillary glass tubes, allowing the lymph to flow directly from the punctured vesicle into the capillary tube, taking care that no sign whatever of blood shall be mixed with it, whenever they are obliged to keep a supply longer than fifteen days, they can always have reliable matter. They should take the lymph generally on the *eighth day*, and invariably see that the child supplying it is healthy and vigorous. By so doing the lymph cannot be impure, decomposed, nor purulent; they can avoid ninety-nine hundredths of the dangers which surround humanized lymph. If they would so act we should hear less of the accidents and even deaths

which occur, while most, if not all, of the prejudice and doubt as to the reliability of vaccine lymph from the child would be removed.

P. O'CONNELL, M.D.

CHICAGO, February 9, 1878.

## MATERIA MEDICA AMONG THE CHINESE.

IN July, 1872, M. M. Dabry de Thiersant, Consul of France in China, and Dr. Leon Soubeiran submitted to the French Academy of Medicine a compact little work, the simple title of which, "*Matière Médicale chez les Chinois*," was sufficient to excite a lively curiosity. We have taken the liberty of translating a few selections, made at intervals throughout the text, and from the accompanying report of the commission to whom it was referred by the Academy.

The authors, says the report, have united in common their efforts and the fruits of their labors, in order to make better known the therapeutic agents and indirectly some of the medical ideas of a people whose progress seems to have become arrested after it had advanced more than others in science, industry, and the arts, and who yet maintain a high standard of civilization, and are in possession of ideas and procedures (empiric or rational), the acquisition of which may be of some value to Western nations. It is not the first time that such an enterprise has attracted the attention of physicians and naturalists. Medical literature has been enriched within the past few years by the researches of Tartanov, Debeaux, Porter Smith, and Daniel Hanbury, whose valuable investigations have, however, been only more or less complete, by reason of difficulties inherent to such an inquiry.

Almost all the medicines employed by the Chinese are in a state of *mélange*, rendered unrecognizable by successive infusion in different liquids, or reduced to powder, or at least in so finely divided fragments as to be indistinguishable. But the authors seem to have sufficiently well informed themselves so as to be able to present, with some degree of precision, the therapeutic arsenal of the Orient. The list comprises nearly one thousand names, made up from the minerals, animals, and vegetables. For the latter two they have adopted, as far as obscurity of text will admit, the natural classification. Each group is subdivided into families, which are designated by their Chinese vulgar names, and also by proper scientific terms.

What surprises as we glance over the list, is that we see reproduced there, both in general and detail, the qualities we are accustomed to attribute to our own agents, and indeed a large number of those employed by us. And what is more a matter of surprise, they seemed to have established a similarity of indications, and up to a certain point an analogy of ideas and theories which govern their employment. Their science is of course by no means as complete as our own, but resembles more—indeed one seems to have before him—the *materia medica* of Geoffry, or the practice of Aretæus, in which an incipient science mingles some honest and reliable observations with the errors of charlatanism and the popular superstitions of the times. We are not disappointed, therefore, if we find a faith in specifics prevailing in their medicine, as it has often heretofore led us in ours.

Each substance is given a virtue essentially—anti-rheumatic, anti-spasmodic, or something else—and to mixtures of these single remedies is ascribed the power to heal immediately tubercular disease, or syphilis, or rabies, and so on *ad libitum*. Besides this, the Chinese



are persuaded, as were our ancestors during the middle ages, that Providence, little trusting our instinctive faculties, addresses directly the understanding, in order that the harmful may be at once distinguished from the useful substances. Under this belief they imagine a certain stigma to be placed upon the poisons, and some embellishment upon the remedies, so that the services expected from each may be immediately apparent to man. They term this "*la doctrine des Signatures*;" and a belief in this singular dogma reveals itself at every step in Chinese materia medica.

It is on account of this, doubtless, that madder (*Rubia munjista*), the root of which is red, is given to provoke the menstrual flow; that the *Polygonum tinctorum*, which furnishes indigo, is reputed efficacious in petechial fevers; that the reniform fruit of the *Kadsura chinensis* has aphrodisiac properties; and that ginseng, the bifurcated root of which resembles the human thighs, has the power to restore to invalids strength, and to libertines their waning virility. From considerations of the same sort is founded the reputation of the *Cordiceps sinensis*, as an excitant of the generative organs; of the *Bidens parviflora*, as an infallible remedy to make the nails grow; or of the *Vitex incisa*, to increase the beard; also that the dried placenta is administered in pill form to facilitate accouchement, and favor the expulsion of the fœtus. From the same idea, probably, the horns of the buck are exposed for sale, elegantly adorned, and enjoy a high reputation among the crowd of surfeited or impotent lechers, who employ them as a remedy in order that they may not be deficient in the vigor and becoming ardor which that noble fellow displays at the period of his amours. These are curious illusions, but they merit indulgence on the part of us whose ancestors were not free from as quaint ideas of pharmacy.

In some instances, the Chinese give evidence of a really skilful judgment, and exhibit scientific tendencies which serve, at least, to make their errors the more absurd. For example, we see, in their materia medica, the astringents, both vegetable and mineral (galls, alum, acetate, and sulphate of iron, the salts of lead and silver), serve in their proper places: *Salix babylonica*, *Populus tremula*, *Dichroa febrifuga* arrest excessive perspiration, atonic diarrhœa, spermatorrhœa, and ague. The aromatics, essential oils, and balsams serve as diffusible stimulants, febrifuges, anti-spasmodics, to relieve catarrh, etc. Likewise the medicines furnished by the labiate, umbellifera, and aromatic compositæ, myrrh, storax, sandal, cubeb, and many others. Artemisia and saffron have their reputation as emmenagogues, and a confidence in the abortifacient power of the ergots of rye and maize is implicit. The healthy grains of the latter enter into the fabrication of a beverage identical with that obtained in a like manner and from a similar source in our own country. Chinese medicine has employed from time immemorial the mercurial preparations in syphilis, which they use both internally and by fumigation; arsenic in strumous and herpetic affections, and in certain intermittents; iron, under eight different forms, fills its place as a hematic restorative; borax is prescribed for apthæ; nitrate of soda, as a diuretic; carbonate of lime, as an absorbent; and the oil and lime-water liniment, as an application to burns and scalds. The ancient authors recommend the ashes of seaweed for goitre. They use, as we, the sulphates of copper and zinc, castor oil, gamboge, colchicum, aloes, rhubarb, aconite, veratrum, camphor, musk, opium, and the poisonous solanaceæ.

The hæmostatic value of cold water is well known,

and especially advised in uterine hemorrhage. They employ the cold bath in the treatment of fevers; cold compresses are used in the stupor of drunkenness and in asphyxia from carbonic dioxide. Their thermal, chalybeate, sulphurous, and alkaline springs have a high popularity. It is believed that those who receive and keep their drinking-water in leaden vessels enjoy an immunity from goitre, which suggests the possibility of preventing or removing that deformity by administering the saturnine preparations. According to them lead modifies greatly the specific effects of mercury. They have their sialagogues, anthelmintics, expectorants, and diuretics similar to ours, and they believe themselves to possess a great number of substances capable of preventing or dissipating intoxication (*Bretonica officinalis*, *Novenia dulcis*, *Chrysanthemum alba*, *Myristica*, *borax*, etc.). They fill out quite a list of galactophore and galactogogues. And what is more remarkable, is, that surgical *anæsthesia*, general and local, is of very ancient use. A Chinese surgeon (Houa-to), relates that he employs a species of *atropa*, (?) described in the *Pentsao*, which produces an insensibility sufficient to permit severe operations involving the lower portion of the body (*bas ventre*). *Datura alba* acts in the same way. It is said that insensibility is often maintained several days. The condition is probably narcosis. A mixture containing the powder of *Aconite rad.* is used to produce local *anæsthesia* for minor operations.

It is unnecessary to prolong the parallel. The examples cited are amply sufficient to exhibit the general similarity of their materia medica to that of other nations.

The theoretical ideas of our antipodes conform, likewise, somewhat to those which govern us. They are generally more rational and more advanced than we would suppose.

Along with the old doctrine of specificity appear physiological ideas evidently more modern; for example, we find in many passages an affirmation of the pathological conditions of the fluids. An undetermined *Bignonia* restores the impoverished blood. To rhubarb is ascribed the power not only to prevent its corruption, but also to render it fluid when once coagulated. But naturally it is the solids which are more often the seat of lesions; and as each of the more important remedies is assigned to one or more of the more important viscera, the different portions of the organism are treated by their appropriate remedies alone. Sometimes, it is true, an active remedy, like a certain *Carduus*, operates simultaneously by what Chinese medicine terms the *douze voies* (the twelve ways) and affects with one blow the entire economy, after the manner of a brilliant emetico-cathartic amplified by a generous excitation of all the eliminative and excretory functions.

The elimination of poisons, and consequently of medicine, is effected by special avenues, which permit, when fully mature, the morbid material to evacuate the body.

Hence the method they have of treating hydrophobia by the *Mylabris chicerii*, which contains rather more cantharidin than ordinary Spanish flies, or by grasshoppers, which provoke the abortion and expel the *canine fœtus*, with which the victim is supposed to have become impregnated at the occasion of the bite by the rabid animal. The strangury and hæmaturia induced by the irritating remedies encourage the delusion that delivery is accomplished through the urinary passages. The authors do not say whether the treatment is successful or otherwise.

The same means are used to abort the human fœtus,

although the laws against the crime are exceedingly severe.

According to them *arsenic* finds an efficient counter-poison in the *Phacelia angulatus*, which makes it appear that a species belonging to an inert genus possesses exceptionally a pharmaco-dynamic activity comparable to that of calabar bean. The stings of scorpions and the bites of venomous reptiles are treated by the fumes of sulphur. Nitrate of soda comes in, not only as a diuretic, but also as a lotion in ophthalmia and opacity of the cornea.

It is hardly prudent to continue the recital. Only a tithe of the materials can, of course, be mentioned. While many are employed under superstition and ignorance, others really deserve the place they occupy, and some, without being heroic remedies, will certainly attract the attention of therapeutists, and well deserve to be submitted to the test of experiment and severe clinical observation. Such are the *Aucarrhena asphodeloides*, employed for the same purpose as squills; the *Pardanthous chinensis*, to which is attributed qualities more remarkable and varied; the *Papalia geniculata*, the acrid root of which is sialagogue, and used in rheumatism; the *Pissarina clamedaphne*, used as cordial, tonic, and febrifuge; the *Gynocordia odorata*, the seeds of which are prescribed in dermatoses, specific or other; the *Tournfortia argusina*, the *Trichosanthes dioica*, and also the *Dichron febrifuga*, the reputation of which is great in Cochin China, and which merits, without doubt, the right of succeeding cinchona.

Such are the salient points observed in looking over the work. They indicate something of the actual state of the Chinese medicine and its tendencies, and serve at least as curiosities, though it is probable they will attract more attention to the East, which will ultimately develop more important facts and questions bearing upon the medicines of this singular people.

GEO. O. WILLIAMS, M.D.

GREENE, CHENANGO CO., N. Y.,  
Jan., 1878.

## THE ULTIMATE RESULTS OF EXCISION OF HIP-JOINT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—At a meeting of the Medical Journal Association, February 1, 1878, Dr. Sayre is reported (MEDICAL RECORD, No. 382, pp. 175, 176) as making the following remarkable statement: "Almost every case he [Dr. S.] had operated upon had been given up to die, yet of eight cases which had been discharged from the Hospital for the Ruptured and Crippled as incurable, seven had made good recovery" [my italics].

The doctor, I find, has been incorrectly informed as to the condition in which and circumstances under which the patients left the hospital; and I very much regret his incautious use of the term "incurable," based on such misinformation. Whether "good recovery" can be predicated of seven of the eight is one of the objects of this communication.

March 3, 1878, I called on Dr. Sayre, and, at my request, he and his son, Dr. Louis H. Sayre, very kindly gave me the names and numbers of the cases to which reference had been made.

CASE I., No. 37,\* removed from the hospital March 25, 1873. On admission, the disease had already advanced into the second stage; six months later a small abscess appeared on the anterior surface of the

thigh, and this alarming the mother, caused her to remove him, although urged to the contrary. The prognosis was good, and there was no sign or symptom present warranting his discharge as "incurable." Excised "Jan. 22, 1873"—ten months after leaving the hospital. This is the case presented the evening of Feb. 1st, and reported (RECORD, p. 175) as "formerly under treatment at the Hospital for the Ruptured and Crippled, in which there was enlargement of the liver, waxy casts in the urine, etc." The impression is left that such was his condition on removal—and yet in "Orthopedic Surgery," where the case is included in the table (No. 37), no allusion even to these amyloid changes is made. Such was *not* his condition while in the Hospital for Ruptured and Crippled.

CASE II., No. 46, was removed Sept. 2, 1873; general condition very good; disease in hip long since arrested; a little motion at the joint; limb, however, considerably deformed, and one inch short; no pain or tenderness or open sinuses; in fact, the boy was admitted for the relief of the deformity, and not left long enough to derive much benefit from the treatment. Excised "Dec. 10, 1873"—three months after removal—and his condition at this time is given, not as emaciated or suffering from exhaustion, but "leg flexed and adducted; several sinuses leading to dead bone on outer part of thigh." While in our hospital, there was no pretext for prognosticating incurability, and the case was *not* discharged "incurable." The result of the excision is given: "movable joint, can bear weight on limb,  $\frac{1}{2}$  inch short"—nothing more. We are not told whether any sinuses remain open or whether any deformity exists. The whereabouts of the boy, I believe, is unknown.

CASE III., No. 47, was removed from the hospital Aug. 22, 1873, by the mother, who was offended because reprimanded for persistence in feeding the child all manner of indigestible articles. The patient had suffered much after the opening of a large abscess, but the drain was becoming less, and an improvement was observed a few days prior to removal, and so noted on the records. The case was *not* discharged "incurable." Excision "Jan. 21, 1874"—five months later—and death "from exhaustion, April 7, 1874."

CASE IV., No. 53, was first admitted to the hospital Feb. 13, 1872—first stage—and discharged cured, not a sign of disease to be detected, April 20, 1872. Re-admitted Aug. 18, 1873, in second stage—abscess forming, limb deformed, and child unable to walk. Relapse reported as of two months' standing. The abscess opened, and another formed, producing much constitutional disturbance, but the danger was considered passed, when the mother, against our advice, removed him, and all further treatment was discontinued. He was *not* discharged "incurable." Excised "Feb. 6, 1875"—five months later. Through the courtesy of Dr. Sayre, I was enabled to see the boy, at 15 West Street, March 4, 1878, and found him in apparently good health, able to walk without support, though limping and incurring the spine by way of adaptation. The liver extends (I employed palpation, percussion, and measurement)  $3\frac{1}{4}$  inches below the free border of the ribs; the urine I did not examine; the thigh is ankylosed (?) at an angle of about 135° with the pelvis. A slight degree of motion is possible, I think, if great force be employed and pain be produced; the father himself attempted this by way of employing passive motion. The limb is  $1\frac{1}{4}$  in. short by careful measurement; two open sinuses in the track of the incision wound remain; the oakum dressing was well covered with sero-pus, and the father and mother told me that the wound

\* The numbers refer to the table of Excision in "Orthopedic Surgery," by Dr. L. A. Sayre, pp. 311-326.



had never closed since the date of the operation, three years ago. They told me, unasked, that a second operation was soon to be performed for the removal of dead bone.

CASE V., No. 56, admitted to the hospital June 9, 1874, and the disease was so obscure that a diagnosis was made simply on the strength of a moderate *tenseurness* of the adductors. Removed much against our will July 17, 1874—one month and eight days after admission—the disease being still enveloped in obscurity. It is useless for me to say of this case, "It was not discharged 'incurable.'" Excised "April 21, 1875"—nine months after removal. Result in table not given, though Dr. Sayre informed me March 3, 1875, that he had recently heard from the boy through a friend (medical, I believe), who reported, "Motion perfect, one inch short." This case I have not had an opportunity of observing, and I believe Dr. Sayre has not.

CASE VI., No. 60,\* Chas. Pixlee, operated on subsequently to the publication of Dr. Sayre's book, and hence not included in the table. Removed from the hospital May 17, 1875, through an officious aunt. The boy was emaciated and had suffered much from an abscess which had opened one month previously. We insisted on his remaining, and did not discharge him "incurable." Excised "February 2, 1876," and "died April 19, 1876, from exhaustion."

CASE VII., "R. M. B. Potter, of Newport, R. I.,"† was never treated as an inpatient of the hospital, and I find no record of his case. Dr. Knight, the Resident Surgeon, has a distinct recollection of the case, and asserts that the child was brought to him, and seen as an out-door patient at long intervals during the spring and summer of 1875, from Newport; that he observed the advance of the disease, and insisted strongly on having the patient placed in the hospital, in order that the case might be under his control; that this advice was not taken; that the last time he saw the child there was no open sinns, no abscess, and no sign of an abscess; and that he *did not discharge* the case as "incurable." Excised "November 23, 1876," and Dr. Sayre tells me that he is cured, but is suffering from malarial poisoning, is in the south of France, and up to last accounts the mother was in search of certain baths, reported as beneficial to patients with *hip-disease*.

CASE VIII., No. 61, Chas. Smith,‡ was never in the hospital, and I have searched diligently for his name among the indexed out-door patients (all who were ever treated here are indexed) between the years 1872 and 1876 inclusive. I have failed to find the name of any such patient with *hip-disease*, and I have no recollection of ever having seen the case.

So that the eight become *seven*; the "eight discharged incurable" become *not one discharged incurable*; the *seven* "good recoveries" (excluding the last one as never having been under treatment in the hospital) correctly interpreted, as follows: *one* "good recovery," with a possible *three*, *i. e.*, if case No. 46 and the Potter case can be included, both of which, however, for the sake of Science, should be still *sub judice*; one doubtful (No. 56); one still uncured (No. 53), and probably incurable; and *two deaths* from exhaustion!

Respectfully submitted,

V. P. GIBNEY, M.D.,

Assistant Surgeon to Hospital for  
the Ruptured and Crippled.

195 E. 42D STREET, March 4, 1878.

\* MEDICAL RECORD, vol. xi., p. 336.

† Ibid., vol. xii., p. 27.

‡ Ibid., vol. xi., p. 366.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 3 to March 9, 1878.*

BACHE, D., Major and Surgeon. Granted leave of absence for one month. S. O. 31, Div. of the Pacific and Dept. of California, Feb. 18, 1878.

SMART, CHAS., Capt. and Asst. Surgeon. To report in person to the Commanding General, Div. of the Atlantic, for assignment to temporary duty. S. O. 48, A. G. O., March 6, 1878.

CRONKHITE, H. M., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Arizona, to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 48, C. S., A. G. O.

WINNE, C. K., 1st Lieut. and Asst. Surgeon. Leave of absence extended one month. S. O. 17, Div. of the Missouri, March 4, 1878.

HAYARD, V., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and on arrival, report by letter to the Surgeon-General. S. O. 48, C. S., A. G. O.

TAYLOR, M. E., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month from March 3d. S. O. 29, Dept. of the Gulf, Feb. 27, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 9, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| March 2, 1878.... | 0             | 4              | 91             | 5                          | 98       | 52          | 0          |
| March 9, 1878.... | 0             | 3              | 89             | 3                          | 77       | 73          | 1*         |

DR. JOHN S. BILLINGS AND THE NATIONAL MEDICAL LIBRARY. — Our attention has been called to an item on page 173, in which it is stated that to another gentleman than Dr. John S. Billings is due the credit of arranging and completing the index of the subjects of the National Medical Library. We are happy to correct such an error, and state that to Dr. Billings's rare knowledge of medical bibliography, to his wonderful patience and arduous labor, are due not only the present perfection of the catalogue, but the real value of the library itself. The item to which we refer came to us from an apparently responsible source, and its contents did not command such a scrutiny as to matters of fact as would otherwise have been the case. As it is, however, it carries its contradiction on its face.

CULTIVATION OF TEA IN INDIA. — The cultivation of the tea-plant was begun some time ago in the north-eastern provinces of India, and it has already assumed large proportions. In quality, the tea produced is equal to the better Chinese teas. The tea-plant has also been successfully introduced into certain favorable portions of the island of Ceylon; the results have surpassed the expectations of the introducers.

\* This case came from Havana sick with the disease.

**THE NATIONAL MEDICAL LIBRARY.**—A memorial from the Committee of the Medical Society of the County of New York:

*To the Senate and House of Representatives of the XLV. Congress of the United States of America:*

The undersigned Committee of the Medical Society of the County of New York have been appointed specially for the purpose of respectfully submitting to the Honorable the Senate and House of Representatives of the United States, the following considerations:

That the European governments spend a large amount of public moneys on institutions of learning, such as universities, museums, and public libraries.

That particularly the medical departments of foreign universities are supported by public funds, for the reasons that their expenses are necessarily large to accomplish their ends; and that the governments have no interest of greater importance than that of securing by such means the best possible protection of the life and health of the people.

That the generosity of the Government of the United States, as shown in the publication of the "Medical and Surgical History of the War of the Rebellion," is gratefully appreciated by the profession, but with the exception of the benefits secured by such means—and which it is proper to say are incalculable—the present elevated standard of American medical learning and literature is almost exclusively due to the individual or corporate exertions of private citizens.

That the medical profession of the United States have good reasons to be satisfied with the accomplished results, and that in this petition they are not asking for anything more than needful aid in the promotion of medical progress, and for the consequent advancement of public interests.

The undersigned committee beg leave further to submit the following:

That the munificence of Congress and the unparalleled industry of the officers connected with the Surgeon-General's office, have succeeded in creating in Washington the National Medical Library, which has already been of very great utility in the very few years of its existence, and which, when increased and carried on in the same spirit, will prove invaluable for the development of American medical literature and the elevation of the standard of American medical education.

That its vast literary wealth, contained in nearly a hundred thousand volumes and pamphlets, is for the most part, however, inaccessible to literary men, who, in order to work progressively and advantageously, have to search for and utilize accumulated scientific material.

That the Surgeon-General of the United States, and particularly Dr. John S. Billings, have prepared a Subject Catalogue—a specimen fasciculus of which has been hailed with joy and enthusiasm, and with unprecedented praise, by the medical press of the United States and of all Europe, particularly of England and Germany.

That this Subject Catalogue, arranged in alphabetical order, and with the greatest accuracy, will, by its publication, place the buried wealth of the medical literature of all countries at the easy and ready disposal of scientific workers.

That, finally, the completion of this great work is a necessity for the medical profession of the United States, and for the healthy development of medical culture of this and all countries, and that it will rank amongst the most practical and beneficial publications of the present period, and that the government cannot

possibly spend its funds on any publication of greater importance than that of the Subject Catalogue of the National Medical Library, as prepared by the present Librarian.

The undersigned committee, therefore, request the Honorable the Senate and the House of Representatives of the United States to appropriate the funds necessary for the completion of the Subject Catalogue of the National Medical Library of Washington. And your petitioners will ever pray:

Signed:—C. R. Agnew, Fordyce Barker, F. J. Bumstead, J. C. Dalton, J. T. Darby, W. H. Draper, F. Delafield, E. Eliot, T. A. Emmet, H. P. Faunham, A. Flint, F. H. Hamilton, J. B. Hunter, A. Jacobi, E. G. Janeway, J. R. Leaning, A. L. Loomis, W. T. Lusk, T. M. Markoe, J. T. Metcalfe, E. Noeggerath, H. D. Noyes, Willard Parker, G. A. Peters, J. C. Peters, A. C. Post, A. E. M. Purdy, D. B. St. J. Roosa, G. A. Sabine, H. B. Sands, L. A. Sayre, G. F. Shrady, S. Smith, I. E. Taylor, T. G. Thomas, W. H. Thomson, W. H. Van Buren, J. R. Wood.

DR. SETH SUOVE died at his residence in Katonah, this State, on the 24th ult. He was born in Warren, Litchfield County, Conn., August 8, 1805, and was the youngest but one of eleven children. The family were of English origin; his great-grandfather of the same name, the first minister of Danbury, Conn., died Oct. 3, 1735, in his sixty-eighth year.

The doctor received his medical degree from Yale College, March 4, 1829, and in the following August settled in his late residence, where his work, only twice interrupted to any extent by illness, was cheerfully and conscientiously performed almost to the very hour of his death.

He achieved an enviable reputation, both as a physician and surgeon, held many positions of honor in several medical societies, and was noted for his self-reliance, acute observation, ripe experience, and singular modesty.

**PRESERVATION OF LEECHES.**—In the country and in places where there are no apothecaries, it is often necessary to keep leeches for a length of time. It is stated that this can be readily done, if 30 drops of a solution of salicylic acid (3:100) be added to the water in which they are placed.

**SMALL-POX IN ALGIERS.**—Advices from Algiers to December 1st state that the epidemic of small-pox in that city has made alarming progress. The cases are most numerous in the outskirts of the city. The average daily number of deaths is from 20 to 25. The disease is most virulent among the Arabian population, which is crowded within the limits of the filthy Casbah. The entire foreign population has left the city. A small pox hospital has been established in the Jardin d'essai, which is situated a short distance out of the city between Hussein-Dey and the lower Mustapha.

**A VETERAN DOCTOR.**—Dr. A. Simon, of Berlin, celebrated last month the sixtieth anniversary of his graduation as a physician. He was born in 1797, and served as a volunteer during the campaign of 1815, in the 9th or "Colberg" regiment of infantry, a regiment which is still in existence. He subsequently studied medicine in Berlin, and received his degree on the 6th of January, 1818.

**CONGENITAL DISPLACEMENT OF BOTH LENSES.**—Mr. Wordsworth exhibited, at a late meeting of the Medical Society of London, six persons belonging to one family, who were all affected by congenital displacement of both crystalline lenses.



## Original Communications.

## CLINICAL OBSERVATIONS ON THE EARLY STAGES OF SCARLET FEVER, WITH SUGGESTIONS AS TO PATHOLOGY.

By C. E. BILLINGTON, M.D.,

VISITING PHYSICIAN TO DEMILT DISPENSARY.

(Read before the New York Academy of Medicine, March 7, 1878.)

## PART I.

A FEW special observations now to be presented were made by myself and my assistants on 102 cases of scarlatina, which were visited between January 1, 1877, and February 9, 1878, in the north district of Demilt Dispensary. The general remarks are based on a much larger number seen during a series of years in dispensary and private practice.

I shall also refer to the Demilt Dispensary clinical report of my friend, Dr. W. E. Bullard, visiting physician to the south district, in the *New York Medical Journal* for March, 1878, on 74 cases—it having been agreed between us to make observations on some of the same points.

The earliest fact in the clinical history of scarlatina is the contagion. While this is exceedingly subtle, permanent, and capable of being carried to great distances, it is at the same time known to be uncertain in its effect, even on those who are exposed to its great intensity. I availed myself of the facilities at my disposal to test what proportion, in a considerable number of children directly and constantly exposed to the disease, and unprotected by having had it, might yet escape it. This could not be done either in hospital or in private practice, because there the sick are usually at once isolated: but in the apartment of the dispensary patient, the sick and the well remain together, and often sleep in the same bed.

Going over the ground again towards the close of the last year, a census was taken of the children in all the families containing more than one unprotected child, in which cases had occurred during the eight months that followed May 1st, with the exception of one which had moved away and could not be traced. It was found impracticable to go back farther, on account of numerous removals. The numbers in each of twenty-six families, with the ages, are as follows:

| No. Attacked. | Ages.                      | Escaped.                   | Ages. |
|---------------|----------------------------|----------------------------|-------|
| 1.....3.....  | 7, 5, 2½                   | 2.....10, 16               |       |
| 2.....1.....  | 14                         | 3.....8, 9, 17             |       |
| 3.....2.....  | 2, 4                       | 1.....10 months.           |       |
| 4.....1.....  | 11 months.                 | 1.....4                    |       |
| 5.....1.....  | 1½                         | 1.....8                    |       |
| 6.....2.....  | 1½, 2½                     | 0                          |       |
| 7.....3.....  | 4, 5½, 2½                  | 0                          |       |
| 8.....1.....  | 4, 5½, 2½                  | 3.....3, 6, 9              |       |
| 9.....1.....  | 9 months.                  | 2.....9, 6                 |       |
| 10.....1..... | 5                          | 2.....10, 3 months.        |       |
| 11.....1..... | 5                          | 2.....6, 8 months.         |       |
| 12.....2..... | 6, 4                       | 4.....9, 5, twins 2½       |       |
| 13.....1..... | 6                          | 1.....3 weeks              |       |
| 14.....3..... | 2½, 8, and another before. | 0                          |       |
| 15.....2..... | 7, 3                       | 5.....1½, 5, 11, 13, 17    |       |
| 16.....2..... | 7, 10 months.              | 1.....4                    |       |
| 17.....1..... | 2                          | 4.....12, 10, 5, 6 months. |       |
| 18.....2..... | 2, 5                       | 3.....10, 7, 3 months.     |       |
| 19.....2..... | 2, 5, 3½                   | 1.....16                   |       |
| 20.....2..... | 4, 5½                      | 0                          |       |
| 21.....1..... | 2                          | 2.....15, 12               |       |
| 22.....1..... | 5                          | 3.....10, 8½, 2½           |       |
| 23.....1..... | 7                          | 1.....5                    |       |
| 24.....3..... | 7, 6, 3                    | 0                          |       |
| 25.....1..... | 2                          | 2.....15, 12               |       |
| 26.....2..... | 5, 2½                      | 3.....8, 6, 2 months.      |       |

The totals show that while forty-three children in these families had the disease, forty-seven children who had not previously had it escaped. But, reject-

ing from the latter list four, aged three weeks, two months, and three months, ages which are usually exempt, leaves, curiously enough, the two totals exactly equal. Two points herein would naturally be challenged: First, had none of these children had the disease before? I reply that the parents were in each instance carefully questioned and cross-questioned, no second-hand statements having been accepted, and the list is probably in that respect nearly correct. Second, where only one or two had it out of a large family of children, as was stated in several instances, was the diagnosis of scarlatina correct? I answer that the disease was in every instance so well marked as to be unquestionable. It was, moreover, in some of them severe, and in one fatal, so that the exemptions were not due to the mildness of the contagion.

In none of these cases was any attempt made at prophylaxis beyond the ordinary use of disinfectants in the apartments. Indeed, this enumeration, which was no very light task, was not undertaken out of mere curiosity, but with reference to the question of prophylaxis. The enthusiastic advocates of belladonna and the sulphocarbolate of soda have published impressive statistics of their successful employment. These results, I believe, have usually been obtained in rural districts, or among the inhabitants of detached residences in cities. Suppose the exemption of fifty per cent. of unprotected children, after constant exposure in the closely crowded families above enumerated, had occurred in connection with the employment of some favorite prophylactic measure. Would it have been possible to deny that it might have had some utility? But had it at the same time been tested upon the other inhabitants of the teeming tenement-houses containing these cases, what an imposing statement of prevented disease might have been advanced! It is with no view to discredit efforts at prophylaxis that these facts and remarks are presented, but simply to suggest a criterion by which to test their results.

## INCUBATION.

The interval between the reception of the contagion and the subsequent outbreak of the disease is usually denominated the period of incubation. The generally accepted theory with regard to this is that the contagium having by some route entered the blood, a specific general change, either from organic propagation or purely chemical action, is now taking place in that fluid, the effect of which change is in due time manifest in the occurrence of the characteristic local and general phenomena of the disease.

As this specific primary blood-change has never been demonstrated by microscope or chemical test, it is proper to inquire: Is its existence or its agency a logical necessity? or, on the other hand, may the phenomena of the earlier stages of scarlatina be rationally accounted for by local morbid processes acting on the constitution through the agency of the nervous system, and probably also of the blood considered simply or mainly as "common carrier" and distributor of a locally produced *materies morbi*?

The first symptom of an attack of scarlatina that ordinarily attracts attention, and the earliest that finds place in most clinical histories of the disease, is fever, with vomiting, etc. I have, however, been led to entertain the belief that there is an earlier symptom, and that mainly by the following observations: First, out of a large number seen in the stage of invasion, some of them very early, I do not remember one in which throat-inflammation was not present. This has, indeed, in some cases been slight, but it has always

been unmistakable. Second, in a considerable number examined at varying short periods before the invasion of the fever, either in families in which there were previous cases or otherwise, I have in not a few seen a mild but characteristic faucial affection already present.

The result of these concurring observations on so many cases seen in different epidemics in dispensary service since 1869, and elsewhere, has been the belief that the precedence of angina to every other symptom of scarlatina is probably not occasional or frequent, but invariable; that, in short, some degree of throat inflammation is the one symptom that is never absent in scarlatina, and that it is always the initial symptom.

The observations of Dr. Bullard on these points have accorded with my own.

The length of time by which this symptom precedes the manifest outbreak of the fever is, like most things connected with scarlatina, very variable. I have in some cases seen the characteristic abnormal redness in the fauces for forty-eight hours before the invasion. In others it can have been there at most only two or three.

It must, however, be remembered that even an occasional absence of well-marked throat-inflammation at the time of first invasion does not invalidate the rule which has just been stated, for the primary local irritation that precedes inflammation may doubtless in some organizations occasion febrile disturbance before redness and swelling have had time to be fully developed.

Another suggestive fact, closely related to the preceding, has not escaped the notice of various observers, but has perhaps failed to receive the attention which its importance demands. It is that this throat-affection, which will presently be described, is not confined to those about to come down with the disease, but is often seen in those who are exposed to its contagion, but are protected by having had it, and those who, not being so protected, yet fail to take it.

I have made systematic observations with regard to the frequency of this phenomenon in about thirty consecutive families. This number may be too small to warrant a sweeping assertion. In those families, however, the occurrence of the faucial affection in both adults and children who were habitually in the room with the patients was the rule, and its absence the exception. In one instance, where the case terminated fatally after a three-days' illness, only two out of half a dozen persons present showed it. In two families, in each of which one very mild case occurred, there was a similar proportion of exemptions. But in every instance in which cases of some severity had been present for a week or more, the uniformity with which this appearance was observed was striking. Yet even here there were exceptions. In one family, for instance, in which two children were very ill with the disease, and the father and three other children presented a marked faucial redness, the mother, who was in constant attendance upon the patients, showed not the slightest trace of it.

The affection presented very various degrees of intensity, from a soreness that was voluntarily complained of to a slight and painless redness. The appetite and general health were usually very little, if at all affected. I took the temperature in several instances and found it normal. Dr. Bullard's observations upon this point are again in accordance with my own.

A physician who is a member of the Academy has informed me that he never attends a case of scarlatina without suffering from sore throat.

It appears from the foregoing observations that a very general effect of the scarlatinal contagion, when sufficiently intense and continuous in its action, is to excite throat-inflammation, and that this local inflammation is in a considerable percentage, even of the unprotected, its only effect; but in others is the herald, at least, if not the initial stage, of a malady which is by common consent a typical "essential fever."

It consists in a diffused redness, sometimes at first punctate, first seen in some cases on one or both of the faucial half-arches, then extending around them and involving the uvula, and extending also to the tonsils, which become reddened and more or less enlarged. The posterior wall of the pharynx is but little, if at all, affected. While this is the description of the typical and most usual form of this affection, as I have seen it, it must be added that some cases present little or nothing that is distinctive.

The fact that this throat-hyperæmia is so generally observed in those who are exposed to the scarlatinal contagion, and that it is observed on the very situations upon which the current of inspired air most directly impinges, cannot fail to suggest the query whether this contagion may not act primarily as an irritant to the sensitive mucous membrane of the fauces, and that what is commonly called the incubative stage of the disease may be a local rather than a general process.

In advancing, or, rather, reviving this suggestion, I am not unaware of the striking arguments by analogy which may be adduced *per contra* from the effect of various chemical poisons acting constitutionally upon certain selected localities. Nor do I forget the numerous and interesting throat-affections that occur in many other diseases, both general and local. The fact that some of these manifestations are secondary, like the faucial syphilides, does not exclude the possibility that others may be primary—as is most probably diphtheria. The question as to which of these classes the scarlatinal angina belongs, has, however, no material relation to the remarks and suggestions that are to follow.

#### DIPHThERIC COMPLICATION.

The frequent complication of diphtheria with scarlatina, which has seemed mysterious to many, admits, in accordance with the foregoing facts, of a simple and rational explanation. The primarily local disease, diphtheria, is actually invited, as is well known, when epidemic, by various forms of catarrhal throat-affection, any kind of sore throat being in this respect a source of danger. Now, it has been seen that the invasion of scarlatina is not only attended, but often preceded for hours, or even days, by a mild form of sore throat, and that a considerable proportion of persons in contact with the disease are similarly affected. Is it strange then, that we see scarlatina complicated by diphtheria at its earliest as well as at later stages, or that the two diseases not unfrequently attack simultaneously different persons in the same family?

#### THE STAGE OF INVASION.

It might be matter for curious inquiry what change takes place in the throat which has been the seat of redness for days, hours, or minutes before, when the fever actually begins. Might not this change be one from mere hyperæmia to actual inflammation, or from a mild and innocuous type or degree of inflammation to one that is severe and morbid? This is a region of hypothesis; for, as death never occurs from scarlatina



just at this point, pathology never has the opportunity to solve the problem, even if its present resources be equal to the task.

At all events, this change, whatever may be its nature, is usually quite sudden. The mild and prodromic angina has now given place to the disease scarlatina.

In essential corroboration of the statement that the first symptom of this stage is soreness of the throat, I quote from those excellent observers of this disease, Meigs and Pepper, the following: "Simultaneously with fever there is in nearly all cases more or less soreness of the throat. In all that we have examined, even those in which no pain was complained of, there has been redness, or redness with swelling of the fauces." In Reynolds' System of Medicine, sore throat is numbered first among the symptoms of the stage of invasion, with the remark that it is "the first symptom noticed by most adults."

It may be added that this angina, which ushers in scarlatina, continues throughout its course with an intensity which is, as a general rule, in direct proportion to the severity of the disease—though after the latter becomes complex it is only one of several important factors.

This symptom, then, is an interesting subject of study, and certain propositions concerning it may serve at least as bases for discussion.

The first of these is, that the scarlatinal angina is specific. It has a specific cause, specific appearances, a specific history, and possibly, at least, specific morbid products and constitutional effects.

Its appearance is characteristic. It may in typical cases be distinguished from ordinary catarrhal pharyngitis as well as from the sore throat that attends measles, small-pox, etc. Prof. Thomas, of Leipzig, in his excellent article on scarlatina in Ziemssen's Cyclopædia, says, after a description of its various forms: "From these remarks it appears that the pharyngitis of scarlatina in the majority of cases and, at least, in those of moderate intensity, is not diffuse and general, but is confined to certain sections of the throat." He then quotes some observations of Hürlin upon the cadaver, confirming the specific character of the scarlatinous angina.

This angina has, in its severe forms, a persistent intensity and an occasional malignity to which simple catarrhal pharyngitis rarely furnishes any parallel. It has, moreover, a special tendency to extend by continuity of surface into the nasal passages and into the Eustachian tubes.

A second proposition, and one which is perhaps worthy of especial consideration, is that *this angina is attended with a particularly potent peripheral nerve-irritation*. This is rendered probable by what has already been stated, and by the fact that it is so frequently accompanied by phenomena such as may be, and often are, the results of such irritation.

If these propositions are true, it follows as a corollary that its morbid products may be specific.

If it be objected that these specific morbid products are undemonstrated and hypothetical, it must be remembered that they are in this instance to be balanced against another hypothesis—that of a primary blood-change—which is as yet equally in need of positive demonstration. The supposition of their existence is favored by the analogy of what is seen in diphtheria, where a specific as well as a septic poison is produced locally, and penetrates the system.

It follows also that the constitutional effects of the scarlatinal angina may be specific, both by its peculiar nerve-irritation and by the absorption into the circulation of those morbid products.

Vomiting is a frequent, but not an uniform symptom. Out of 102 cases it occurred within the first twenty-four hours in 80. It was absent in some very grave cases.

This vomiting has been said by some authorities to be "projectile." I have failed to perceive that it differs in this or in any other respect from vomiting suddenly produced in children by a variety of other causes, and in various other diseases.

This vomiting is due to several circumstances. The chief of these is probably the reflex influence of the throat-irritation, as when the fauces are tickled; second, the effect upon the stomach and its ingesta of the sudden accession of fever; and third, the general nerve-disturbance.

Grave nerve-symptoms may occur, as is well known, during the period of invasion, but they are not so frequent, nor, as a rule, so intense, as they are at a later stage, which will presently be considered.

May not these initial nerve-symptoms be due simply to the angina? Such symptoms are not unknown as the attendants of simple pharyngitis, but are certainly less frequent in that connection. It has, however, already been remarked that there is probably an element of nerve-irritation in this scarlatinal angina that is not present to the same degree in other forms of sore throat. The peculiar bright redness that is so generally observed in it, varying in some bad forms to a dark and purplish hue, its rapid accession and increase, and its intensity in many cases, favor that supposition. Nor is it a valid counter-argument that in many of these cases there is no great local painfulness. The same is often true of the irritation of dentition, or of intestinal worms, when they excite convulsions and kindred reflex phenomena. Nor is it necessarily a valid counter-argument that, in some cases in which early nerve-symptoms are most pronounced, the angina is not seen to be severe. It is a well-known fact that some children are predisposed to suffer grave nerve-disturbances from causes that are apparently trivial, and which would produce no such effect upon the majority. In no connection are these idiosyncrasies of cerebro-spinal irritability more frequently and strikingly observed than in connection with the onset of scarlatina. And this is not merely true of individuals. It is no very unusual thing to see all the children of a family affected with severe forms of initial nerve-disturbance, even when the several attacks occur in different epidemics and at intervals of years.

But the nerve-disturbance at this stage of scarlatina is inseparably connected—probably both as cause and effect—with another important phenomenon, fever. This is usually sudden in its invasion, rapid in its rise, and often intense in character. May not this, too, be regarded simply as holding the same relation to the angina that symptomatic fever usually holds to local inflammations?

In fourteen recent cases the temperatures taken in this stage were as follows:  $102\frac{1}{2}$ ,  $100$ ,  $101\frac{1}{2}$ ,  $102$ ,  $101\frac{1}{2}$ ,  $99\frac{1}{2}$ ,  $101\frac{1}{2}$ ,  $102$ ,  $103\frac{1}{2}$ ,  $101\frac{1}{2}$ ,  $102\frac{1}{2}$ ,  $104$ ,  $104\frac{1}{2}$ ,  $105$ —the last having been taken on the third day in a malignant case, with intense angina and retarded eruption.

In two recently observed cases of ordinary follicular tonsillitis in children, the temperatures were  $104\frac{1}{4}$  and  $104\frac{7}{16}$ , the former accompanying violent and repeated convulsions.

WÜRZBURG.—The chair of surgery of the University of Würzburg, formerly held by the late Prof. von Lihart, will be filled by Prof. Bergmann.

## AN IMPROVEMENT IN THE OBSTETRICAL FORCEPS.

By MAUS R. VEDDER, M.D.,

NEW YORK.

In presenting to the notice of the profession my improved obstetrical forceps, it does not seem necessary that I should attempt to review the whole field of obstetrics, nor do I think it at all requisite to discuss, however briefly, the growth and development of the *armamentarium* of the obstetrician. I shall therefore confine myself to a few statements, which, I trust, will be sufficiently clear to enable my professional brethren to understand the improvement I have effected, as well as the course of reasoning in which it originated.

Of recent years the progress in medical science, particularly in the domain of surgery, has fully kept pace with the marvellous growth of science in general. As is well known, some of the really wonderful discoveries of modern times are but improvements on long existing forms, or the application of principles known from the remotest antiquity. Thales of Miletus described the phenomena and effects produced by the friction of amber, nearly twenty-five centuries before the same force was utilized by Morse in the electric telegraph. Even the telephone—the most wonderful discovery of the present decade—was in

forceps. These, as previously stated, are but artificial hands, and supplementary, as it were, to those of the obstetrician.

The forceps or pincers, it is well known, has been in use as a substitute for the finger and thumb from remote antiquity; and the obstetrical forceps as a substitute for the hands, since towards the close of the seventeenth century. While the former clasps or holds between the ends of the blades placed in apposition, the latter, acting in the same manner, clasps or holds between the inner surface of the blades themselves—the motion being purely prehensile, as in the case of the thumb and finger. Instead, then, of likening the obstetrical forceps to the hands, would it not be nearer the truth to compare it with a very large, broad, and strong finger and thumb.

The task of reducing a mechanical appliance to the absolute perfection of the human hand must be considered impossible, as the most perfect instrument can neither be endowed with the sense of touch, nor placed *en rapport* with the human brain.

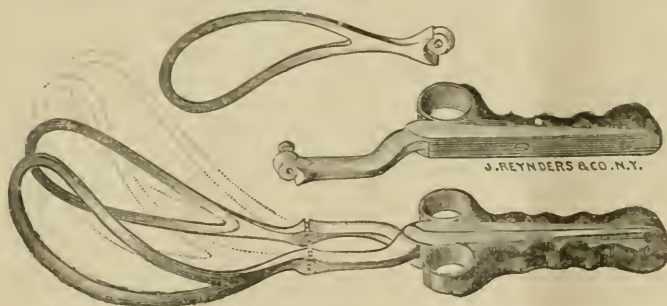
Such being the case, the present obstetrical forceps may be considered as very nearly perfect. Still, while representing the human hand, the instrument has not the capabilities of that organ; and this fact early impressing itself upon my mind, I have devoted much thought to the subject, hoping to discover wherein lay the deficiency.

Chancing one day to place my wrists in juxtaposition, and curving the palms and fingers of the hands to resemble the fenestrated blades, I discovered that the forceps in common use resembled a pair of hands with limited motion at the wrists. The only motion, in fact, of which it was capable, was prehension, while the human hand possessed also the power of pronation, supination, and, when placed in the position I have just described, of a limited motion upward and downward.

Pronation and supination are seemingly of no avail in the forceps; but this other wrist-motion, I saw at a glance, was precisely the principle lacking, and the one which I had for a long time sought to discover. The introduction of a hinge or joint, with limited action in the shank of each blade of the forceps, was all that was necessary to effect this improvement; and the instrument thus constructed, by approximating more nearly to the human hand, could not fail to prove more serviceable in practice than those ordinarily employed.

Desirous of testing my theory on the subject, I laid my design before Messrs. John Reynders & Co. (New York city), who, in June, 1877, constructed to my order an obstetrical forceps of Simpson's pattern, which contained a hinge or joint of limited action in each shank, close to the fenestrated blade. This improved forceps I have tested on several occasions in actual practice, and have found it to possess in the utmost degree all the advantages I had hoped would follow its employment. My object, it should be understood, was not to overcome any particular, special, or single difficulty, but to supply to the existing forceps an element of usefulness which would be of avail in every case in which the instrument was employed.

Last September I showed my improved forceps to Dr. Fred. A. Castle, and, on the first of November following, to Professor Fordyce Barker. Both of these gentlemen expressed themselves as highly pleased with the improvement, and the latter commended it to Professor William T. Lusk, who presented it before



successful operation (though in a very primitive form), among the savage inhabitants of an East Indian island, two hundred years before Professor Bell riveted the attention of the scientific world with his perfected instrument.

The common sewing-needle had been in use fully four thousand years before Howe conceived the idea of moving the eye towards the point; yet this simple change may be said to have revolutionized the art of sewing.

It has frequently occurred to me, during my practice, that the obstetrical forceps—even in its present perfection—was deficient in some principles, which, if discovered, would greatly increase its utility or convenience of employment.

Smellie, in his admirable "Treatise on Midwifery," aptly likens the forceps to a pair of artificial hands; and, indeed, so far as the mere grasping, or rather clasping of the child's head is concerned, the *simile* is a perfect one. It was Galen who said that man had hands given him because he was the wisest creature; but Anaxagoras had declared that the superiority of man was owing to his hand. With whichever we agree, it is indisputable that the superiority of the obstetrician is due in a large degree to the intelligent employment of the hands in practice.

As there are times, however, when the circumstances of the case limit the employment of the hands or call for other aids, recourse is had to the obstetrical



the Obstetrical Society on the sixth of November, 1877.

The great desideratum in the obstetrical forceps is an improvement which will enable the instrument to adapt itself to the curves of the pelvic straits. This, I claim, is perfectly accomplished by the improvement which I have effected—it being, in point of fact, the first which has advanced the obstetrical forceps beyond the grade of pincers or common forceps, capable of prehension alone. The improvement here presented also admits of a better adjustment of the blades; furthermore, it can be applied to forceps of any pattern, and cannot possibly interfere with traction.

It is in reality the bestowing of a wrist upon the rigid arm of the instrument. An ordinary hinge or joint over which the operator could exercise no control would be no more effective, as an adjunct to the forceps, than would be a nerveless wrist to the human hand. The peculiarity of the joint or hinge introduced in my improvement is that it is self-acting, and allows of the blades becoming movable, or fixed, at the will of the operator.

When traction is made, the self-adjusting mechanism of the joint fixes the handles in the position or at the angle in which they have been placed by the operator, thus preventing the fenestrated portion of the blades from moving either upward or downward. The instant traction ceases, the handles become free, and may be readjusted to suit the exigencies or requirements of the case, and without any more trouble than would attend a similar motion of the human wrist. The wood-cut here given does not, unfortunately, show the simple mechanism by which this fixation is effected; it is sufficiently explanatory, however, to enable any member of the profession to comprehend at a glance, both the nature of the improved forceps and the advantages which must result from its employment.

A decided objection to the employment of the forceps in common use, as applied to the head at or above the superior strait, is the impossibility of making traction in the line of that strait, the perineum opposing itself to the direction of the handles of the instrument. This difficulty is entirely obviated by the joint in the shank, which enables the operator to flex the handles, and thus guard against injurious pressure upon the perineum. Furthermore, the instrument is at all times perfectly free to obey the manual intelligence which guides it—a matter of no slight importance.

Thus the maximum of traction may be exerted when necessary, and without danger to the soft parts.

Should there appear to be a limit to the amount of traction possible (which I have not yet discovered), the independent traction-rods recently devised by M. Tarnier, and designed by him to enable the operator to make powerful traction, might be added to the improved instrument here presented.

To guard against the possibility of the mucous membrane being caught in the joints, the edges are bevelled; should further protection be desired, the joints may be surrounded by a piece of flexible rubber tubing.

The improved forceps here presented and described controverts no accepted theory, disputes no established fact, and interferes with no existing improvement. It is merely the addition of another element of usefulness to a useful instrument; and as it follows out the mechanism of one of Nature's most perfect constructions—the human hand, it cannot be assailed as a chimera, nor condemned as the idle fancy of an overwrought imagination.

Confident of its value, I unhesitatingly commit it to the profession, knowing from actual experience, that when tried, it will not disappoint the operator.

135 EAST 57TH ST.

## ASTHENOPIA FROM ABNORMAL INTER-OCULAR DISTANCE.

By M. J. DE ROSSETT, M.D.,

NEW YORK.

I HAVE recorded in private practice, during the past four years, six cases of asthenopia which could not be traced to errors of refraction, or to muscular insufficiency. In two of these cases the eyes were emmetropic, failing to discover H greater than  $\frac{1}{40}$  after a vigorous use of atropia; in one case there was no Hm, but Hl  $\frac{1}{30}$ ; in one, Hm  $\frac{1}{36}$  and Ht  $\frac{1}{30}$ ; in two, compound astigmatism, respectively H  $\frac{1}{40}$  + Ah  $\frac{1}{40}$  and H  $\frac{1}{20}$  + Ah  $\frac{1}{18}$ . The following table exhibits at a glance the several conditions, and obviates the necessity of giving the cases in detail:

| Case. | Age. | Occupation. | Refraction.                          | Interoc. Dist. |
|-------|------|-------------|--------------------------------------|----------------|
| 1     | 21   | Clerk.      | E.                                   | 77 mm.         |
| 2     | 27   | Farmer.     | E.                                   | 78 “           |
| 3     | 18   | Student.    | Hl $\frac{1}{30}$                    | 76 “           |
| 4     | 34   | Minister.   | Ht $\frac{1}{30}$                    | 79 “           |
| 5     | 29   | Clerk.      | H $\frac{1}{40}$ + Ah $\frac{1}{40}$ | 75 “           |
| 6     | 33   | Tailor.     | H $\frac{1}{20}$ + Ah $\frac{1}{18}$ | 76 “           |

There was no insufficiency of recti muscles, as determined by prisms at ten feet and at eight inches. In every case the face was broad and flat, and presented the characteristic expression imparted by eyes widely separated, as if there were a slight divergent strabismus; but there was no diplopia, and vision was binocular. In all there was marked marginal blepharitis of the lower lids, which were red and thickened, and strongly curved, having the maximum of curvature near the outer canthus, thus exposing much of the sclerotic at the outer and lower side of the cornea. The other symptoms of asthenopia were as usual: pain in the ball and brow, fatigue, blurring of letters after prolonged reading. The ophthalmoscopic measurements corresponded closely with the results from the test-types, and the fundus was normal in appearance in every case.

Cases I. and II. were entirely and permanently relieved by prisms of three degrees for each eye, bases inwards, used for reading and other near work.

Case III. first received for near work +  $\frac{1}{36}$ , but without benefit; then +  $\frac{1}{30}$  decentred inwards, with temporary relief of some of the symptoms; afterwards +  $\frac{1}{40}$  and a prism of two degrees, base inwards, which combination has sufficed to maintain perfect comfort for more than two years.

Case IV., after careful trial with +  $\frac{1}{36}$ , and the same decentred inwards, without success, was permanently relieved by  $\frac{1}{36}$  and a prism of three degrees.

Cases V. and VI., instances of compound astigmatism. Tried several combinations; those indicated in the table suiting best, but not perfectly. Prisms were not ordered for these, for the reasons which the complexity of such combinations render obvious.

It is manifest at the outset that a pair of eyes having an interocular interval greater by from nine to thirteen millimetres than is normal must have two conditions entailed upon them, viz., a greater arc to be passed

over in sweeping to a given convergence, and a greater angle at all points of intersection of the visual lines. Therefore, even should there be no ametropia, the enforced disturbance in the correlated actions of the recti and ciliary systems offers conditions sufficient for the production of symptoms of asthenopia. And it only becomes a question of the amount of independent action which may be cultivated between these two systems, since upon that will depend the severity of the asthenopia, which, in any event, would be small, unless the eyes are much used at near distances.

An interocular interval of seventy-six millimetres involves, for convergence at fourteen inches, an angle of convergence of about fourteen degrees as compared with ten degrees for eyes sixty-six millimetres apart, and *ipso facto* in its rotation the apex of the cornea must describe a larger arc. But the stronger central impulse necessary for this greater movement is synchronously imparted to the ciliary muscle, producing an excess of accommodation, so that with convergence at fourteen inches there would be accommodation for a nearer point. The desire for clear vision rebels against this, and although the relative accommodation may be considerable it will not prove equal to long-sustained effort without entailing fatigue. Changing the convergence to say ten inches, the object being at fourteen inches, would produce diplopia, besides a further effect upon the ciliary muscle; and relaxing accommodation to fourteen inches can only take place with removal of convergence to a yet more distant point; so that there arises a struggle to render these functions mutually independent, which for a time may succeed, finally, however, to end in asthenopia.

The indication which was followed in the treatment of Cases I., II., III., and IV. was to alter the convergence by means of prisms with a minimum effect upon accommodation. From Donders' brief and positive statement upon this point it might be inferred that this were possible to any extent, but experience does not warrant such a view, since strong prisms always affect accommodation as well as convergence, though in a less degree. Nevertheless there was a margin sufficient for the exigencies of these cases.

In Case I., which serves as a type for the others, the impulse for convergence at fourteen inches produced accommodation for ten inches approximately. The reading distance being maintained at fourteen inches, prisms of three degrees, base inwards, for each eye, made the page appear as if held at about nineteen inches, while the accommodation was adjusted for the true distance. Thus the physiological correlation of the two sets of muscles was re-established, and relief obtained from all asthenopic symptoms.

The treatment of all the cases was based upon like considerations, and it is to be observed that the combinations ordered for the hypermetropies were as nearly orthoscopic as practicable, and afforded complete relief, which had not been obtained from the positive glasses alone.

It seems to me that such combinations of lens and prisms would prove likewise useful for cases in which it could be demonstrated that the visual angle was small, say less than two degrees. As to the possibility of asthenopia having its source in abnormal interocular distance, I think these cases and the results obtained leave no room for doubt.

I would remark in closing that it is to be inferred *a priori* that individuals who possess the peculiar developments of the facial and cranial bones which these presented would also have some abnormality in shape or size of the globe of the eye; and if the experience covered a much larger number of such variations than

have fallen to my lot, doubtless the great majority would exhibit hypermetropic or astigmatic errors.

15 WEST 25TH STREET.

## A CASE OF FACIAL PARALYSIS.

THE LESION MOST PROBABLY IN THE AQUEDUCTUS FALLOPII, BETWEEN THE ORIGIN OF THE PETROSAL AND CHORDA TYMPANI NERVES.

By W. H. COMEGYS, M.D.,

LATE INTERNE CINCINNATI HOSPITAL, CINCINNATI, OHIO.

F. L., *et.* 16, cornice-maker and joiner, of average size and general good health, while engaged at work fell from the cornice of a house to the ground, a distance of thirty feet, striking first the right side of his head and shoulder. He remained unconscious for fifteen minutes. I saw him about four hours after the accident, and found a large swelling over the right parietal bone, and extending forwards to the orbit. I could detect no fracture, and he did not complain of any pain in the head. His right shoulder and forearm were painful, but no fracture existed. Otherwise the motor and sensory nerves were normal. Pupils normal; pulse 76; temp. 98.4°. I continued to visit him from day to day for seven days, and no untoward symptom revealed itself. My treatment consisted of cold applications to the head, and saline purgatives. The swelling subsided, and he had so far recovered from the shock of the injury that he began to go about the city.

September 14th, nine days after the injury, I was called to see him, and found him paralyzed on the right side. He stated that on the 12th he had walked about one mile, and came home feeling very much fatigued. On the following morning, on rising from his bed and attempting to walk into the next room, he was seized with a numbness in the right hand, which rapidly extended to his shoulder and downwards through the right leg to the toes; he would have fallen, but was caught.

When I arrived I found him suffering to some extent with pain in the right side of his head; the face was drawn to the left; he could not close the right eye, neither could he elevate the right eyebrow, nor frown on that side, nor whistle, and the food collected between the jaws and cheek on the same side. The pupils were normal, and the movements of the eye were under self-control. A paresis existed of the right arm and leg, and sensibility was somewhat diminished. He could walk, but inclined to the right side. No alteration of vision or smell, but his taste was lessened on the right side, and the tongue turned to the right. The palatine muscles were intact. No electro-muscular contractility of the right facial muscles.

Thus my patient now presented a state of complete facial paralysis, and a degree of right hemiplegia. The fact that he could not shut the right eye, and that there was no electro-muscular contractility in any muscle of expression of the right face, was conclusive evidence of an eccentric or peripheral affection of the right portia dura. In attempting to localize it I found that while the palatine and uvula muscles were intact, there was a marked diminution of his taste on the right side. It is known that the portia dura while in the Fallopian duct gives off, first, the petrosal nerves which animate the palatine muscles, and, second, the chorda tympani, which ministers to taste. I inferred, therefore, that the lesion of the portia dura was between the giving off of the petrosal and chorda tympani nerves. The taste on the right side of the mouth



has improved, but the facial paralysis has remained with but little change. He has also been given large doses of the iodide of potassium daily.

CINCINNATI, O.

## A NEW GLYCOSURIC REAGENT.

By HENRY G. PIFFARD, M.D.

EVERY one knows the uncertainty of Trommer's test and the bother of Fehling's solution. The following will be found a convenient substitute:

Take of

Sulphate of copper (ch. pure)... 1 part.  
Crystallized tartrate of soda and  
potassa..... 5 parts.  
Sodic hydrate (ch. pure)..... 2 "

Mix thoroughly in a mortar; the more labor spent on this, the better the product. The result will be a pasty mass, which can be transferred to a wide-mouthed bottle, and kept till wanted. To use it, take of the mass a piece about the size of a co. cath. pill, put it in a test-tube, and add about two fluid drachms of water; boil till the mass is dissolved, and the solution has a uniform pale and rather dirty blue color; then add two or three drops of the suspected urine and boil again for a moment. If sugar be present, the usual reaction will be manifest. Mr. F. A. Reichardt has succeeded in making the mass into pills of proper size, one pill being sufficient for a test. A vial of these will be handy in the office, and less troublesome to manage than the usual tests. Trommer's test, unless performed with more than usual care, I do not consider reliable; Fehling's solution is reliable, but troublesome. The appreciation of these facts led me to the formula here given, which some one will probably still further improve.

10 WEST 35TH STREET.

## Progress of Medical Science.

**LYMPHADENOMA MALIGNUM.**—The following case is reported by Dr. Englisch from the *Rudolph-Stiftung* in Vienna. Johann Koracs, shoemaker, aged 19, noticed an enlargement of a few glands in the left side of the neck, in December, 1875. The enlargement rapidly increased, and soon involved all the glands in that side of the neck, and some of those in the right side. He had previously always been in good health, and had never suffered from glandular swellings. He ascribed the affection to a damp dwelling-place. When he was admitted to the hospital in April, 1876, there was a hard, fixed mass filling the left side of the neck from the jaw to the clavicle. On the right side there were a few hard glands as large as a nut. The internal organs were normal; the morning temperature was normal as a rule, the evening slightly increased. The patient was put on the internal use of Fowler's solution, but it had no effect. The glands in the right axilla, and then those in the left, after a time became affected, and the spleen increased in size. The white blood-corpuscles were not increased. In August a pleurisy of the left side set in, and two small abscesses formed in the neck. Death in collapse on September 5th. At the *autopsy*, all the cervical and submaxillary glands, and also the axillary, bronchial, and right inguinal glands were found to be enlarged. The left pleural sac was about half filled with sero-fibrinous exudation. The spleen was double its usual size,

pulp soft. The liver contained several small nodules composed of masses of lymph corpuscles and lymphoid cells; kidneys fatty.

Another case, which was observed in the Birmingham General Hospital, is reported by Dr. Russell. The patient, a woman 40 years of age, noticed a glandular enlargement in the right armpit in October, 1876. The enlargement extended slowly to the glands in the neck, arms, the other axilla, the front of the chest, and the groins, and was attended by pain. The spleen also became enlarged and was painful. The extension of the disease was attended by emaciation. In March, when she entered the hospital, she was anæmic and slightly emaciated. The blood showed diminution of the red, but no increase of the white corpuscles. The patient died somewhat suddenly of asthenia, on May 16th. After she entered the hospital there was some increase in the number of enlarged glands, and those beneath the left angle of the jaw suppurated. A week before death, a general and decided diminution in the size of the enlarged glands took place. Dr. Greenfield records a similar occurrence in one of his cases, taking place also towards the close of life. The temperature varied between 98° and 105°. There was a troublesome, almost incessant cough, and nearly half a pint of semi-transparent non-albuminous mucus was expectorated daily, but there were no physical signs. The cough and expectoration subsided after excision of the uvula, which was somewhat long.

*Autopsy.*—The glands in the neck, chest, abdomen, axillæ, arms, and front of thorax were enlarged, varying in size from that of a pea to that of a large walnut. On section, they presented the ordinary appearances of gland-tissue, without any creamy juice. The spleen was hypertrophied, and presented several irregular, dense, pale spots. Portions of the lungs seemed to be collapsed, and in some of these portions, and also in other places, there were irregular, sharply defined white spots. The microscopical examination of the enlarged glands showed the appearances of irritative hypertrophy; the stroma was broad and distinct, and contained in many places large, nucleated, and branching fibre-cells; the gland-cells had large, round nuclei and a delicate, highly refracting protoplasm. They measured as a rule about  $\frac{1}{35000}$  of an inch. The white portions in the spleen showed in the periphery increase of the reticulum; in the centre the cells were indistinct and granular. In the condensed portions of the lungs the appearances resembled those of chronic phthisis.—*Bericht der k. k. Krankenanstalt Rudolph-Stiftung in Wien, 1876, and The British Medical Journal, September 1st.*

**OVARIOTOMY AT THE SAMARITAN HOSPITAL.**—In one of his last lectures in the Samaritan Hospital, before retiring from the active work of the institution, Mr. Spencer Wells gave a brief, but interesting review of the twenty years of his connection with the hospital. This includes the history of ovariectomy in England, from the first unsuccessful cases of Baker Brown, to the records of the Samaritan for the last two years, which show sixty-eight cases and sixty-one recoveries. During the first five years, about one case in three died at the Samaritan; during the second and third five years, about one in four; in the fourth five years, about one in five, but in the last two years only about one in ten died. The antiseptic system is now on trial, and Mr. Wells is more hopeful of favorable results since thymol has been introduced as a substitute for carbolic acid. Thymol has a pleasant odor, and has no poisonous properties, and, according to Dr.

Burdon Sanderson, is a hundred times more effective as a germicide than carbolic acid. Volkmann has had encouraging results even with so weak a solution as one part in two thousand of water. The surgery of the hospital, however, has not been confined to ovariectomy, and a long list of operations is mentioned, the latest and most interesting of which are nephrotomy and the draining of a renal cyst, under strict antiseptic precautions. Mr. Wells proposes to hold public consultations at the hospital one day in the week, on a similar plan to the one followed at St. Bartholomew's Hospital, not wishing to sever himself entirely from the scenes of his labors and successes.—*British Medical Journal*, Dec. 15, 1877.

**TREATMENT OF PLEURITIC EFFUSION.**—This has lately been the subject of much discussion, and the prominent names ranged on either side of the question show that the profession is by no means agreed on the proper method to be pursued. Dr. T. Clifford Allbutt divides the effusive pleurisies into:—1. Acute effusive. 2. Quiet effusive. 3. Empyemata. 4. Pleuritic dropsy. In the first class of cases the effusion has a tendency to become absorbed, and Dr. Allbutt deprecates operative interference. But if the effusion is so great as to cause great dyspnoea, or to interfere with the entrance of blood into the right heart, then tapping is indicated. Quiet effusive pleurisies are always dangerous: if the pleura is full, there is danger of sudden syncope, from the direct effect of pressure on the heart; if it is but partially full, there is danger of sudden increase, producing a similar effect. These effusions are difficult of absorption. Medicine has but little effect on them, the best treatment being repeated blistering stopping just short of vesication. If, however, the pleura be filled with fluid, the risk of injury to the lung, of empyema, and even of sudden death, is so great as to warrant the resort to tapping, which, in Dr. Allbutt's hands, has been followed by very favorable results. In empyema, operation of some sort is inevitable, and the doctor strongly recommends free drainage as the only method not followed by fever, adding that in private practice he had never lost a reasonably favorable case. Pleural dropsies seldom need puncture. Dr. George Johnson, in a clinical lecture presented a patient, to show the good effects of aspiration in copious effusion of long standing. The case was of traumatic origin, of seven weeks' duration, and the fluid consisted of serum, with a large admixture of blood. Seventy-seven ounces were withdrawn, giving immediate relief, and the patient was going rapidly on to complete recovery. After a careful analysis of three hundred and fifty-two cases, Dr. Goodhart, of Guy's Hospital, says: "I do not think there is any sufficient evidence in favor of the necessity or utility of paracentesis as a remedial agent in any large number of cases of simple pleuritic effusion," and he does not yet feel disposed to agree with Dr. Anstie in his doctrine that paracentesis "must become an every-day remedy for cases where an effusion, purulent or not, lingers for more than a very limited period." The results in empyema are not encouraging. Spontaneous recovery is possible. In twenty-six cases not operated upon, there were fifteen recoveries and eleven deaths; in fifty-one cases operated on, there were twenty-eight recoveries and twenty-three deaths. Dr. Wilson Fox has tabulated nearly 15,000 cases from hospital reports, and estimates the mean total mortality at from 10 to 17 per cent. "If we turn from these data," he continues, "to the mortality of pleurisy after paracentesis, no one can help being struck with the high

mortality which has attended the cases operated upon, reaching, as a mean of recent observations, to 27 per cent., and only falling to or below 10 per cent. in the hands of observers the large proportion of whose operations have been confined to serous effusions in the early stage; while in others it has ranged as high as 45 to 52 per cent." He adds, however, that this high mortality is due in many instances to the nature and to the severity of the cases and of their complications. Dr. Lee recommends the maintenance of a vacuum in the pleural cavity after paracentesis; this he accomplishes by means of a cup placed over the opening; from this the air is exhausted by means of a modified Davidson's syringe.—*British Medical Journal*, Nov. 24, Dec. 8 and 15; *Lancet*, Dec. 8. Dr. Baum, of Dantzig, reports two cases of empyema in which he operated early by incision. Perfect recovery followed in both cases. The operations were performed antiseptically, and, at first, the cavities were washed out with a solution of salicylic acid, but this practice was early discontinued, because it was invariably followed by rise of temperature. He advises, in such cases, early operation and use of drainage-tube. The latter he secures in a peculiar manner. It is stitched to the skin in such a manner as to project about an inch; wads of carbolized cotton are then packed between the tube and threads; these wads are renewed at every dressing. He approves of excision of a portion of a rib in cases where the lung has lost its electricity.—*Berliner klinische Wochenschrift*, No. 48.

**AXO-PELVIC VERSION—A METHOD APPLICABLE TO DIFFICULT CASES.**—This is the name given by M. Guéniot to a method of version which, though not original with him, has not hitherto been described in detail. He has employed it for a number of years, and believes it to be applicable to difficult cases, such as shoulder-presentation, with tetanic contraction of the uterus, where eviceration of the fetus is decided to be impracticable or inefficacious. It consists essentially in employing the weight of the body to assist the hand in penetrating to the fundus of the uterus, and in making traction on the pubic arch or the sacrum of the fetus by means of the finger introduced into its rectum, and curved in the form of the crochets. The hand being introduced into the vagina, the accoucheur presses his body forwards until it rests against the operating elbow, and then brings his weight to bear with more or less force on the point of the olecranon and the posterior surface of the arm. The forearm being thus pushed forwards, carries the hand, as it were mechanically, into the uterus, and forces it along towards the breech almost without fatigue or exertion. When the breech is found, the forefinger should be introduced into the rectum and traction made on the pubis or the sacrum, so as to draw the pelvis of the child into the excavation. It is usually much less difficult to find the breech than to seize a foot or a knee. The method also possesses other advantages: the pubis or the sacrum of the child affords a firm hold to the finger, and, the traction being direct, the force employed is completely utilized. The method may also be resorted to after podalic version has been tried and failed.—*Gazette Med. de Paris*, Oct. 6, 1877.

**CYSTIC ADENOMA OF THE LOWER JAW DEVELOPED FROM EMBRYONIC MUCOUS GLANDS.**—Dr. Kolaczek reports the case of a peasant woman, aged 28 years, who had suffered for eight years from a gradually developing tumor in the left half of the lower jaw. It was removed along with the affected half of the jaw. The



tumor measured six and a quarter inches in length, four and three-quarters in width, and fifteen in circumference over the thickest part. It was separated from the surrounding tissues by a capsule. The tumor itself was firm and elastic, and contained cysts of different sizes. Imbedded in the stroma were numerous fragments of bone, some of which were nearly half an inch in thickness. The cysts, the largest of which was about the size of a walnut, contained thick, grayish-yellow mucus. The microscopical examination showed that the tumor was an adenoma with cystic degeneration. Its structure was exquisitely acinose, the acini being lined with a single layer of cylindrical cells. Dr. Kolaczek is of the opinion that this tumor sprang not from pre-existing normal glands, but from a glandular tissue that was developed during fetal life, and failed to undergo the usual physiological destruction. He regards the tumor consequently as a congenital growth which remained latent for a certain time. —*Centralblatt für Chirurgie*, No. 38, 1877.

**PATHOLOGY OF THE GRANULAR KIDNEY.**—In the September and October numbers of Virchow's *Archiv*, Dr. Richard Thoma, of Heidelberg, has communicated a series of observations upon the changes in the circulatory apparatus of granular or contracted kidneys, which are very welcome in the present state of the question. His first experiments were made to ascertain the relative permeability, under constant pressure, of the renal vessels in this disease, as estimated from the outflow from the renal vein, comparing this with the same as observed in healthy organs, the comparison being made under equal conditions of age. The result is to show that not only is the actual quantity which can be passed through the organ in a given time very largely reduced, as the smaller size of the organ might make us expect, but the proportion of the amount passing out by the renal vein, to that introduced by the renal artery, is much less than in healthy organs. He asks, is this due to the compression on the vessels by the new growth, or is it to be explained by the greater outflow through the walls of the vessels into the tubules? His next observations were to make very careful estimations of the weight of the kidneys at each period of life, and to measure with great accuracy the sectional area of the renal artery. He also calculated the volume of fluid which can pass through the kidney in a given time at different ages from three to twenty-seven years, showing that it increases with the growth of the organ. The sectional area of the renal artery in granular kidney is very slightly smaller than in healthy subjects of the same age, but relatively to the weight of the organ, it is from a fifth larger to twice as large. The intertubular arteries, the vasa afferentia, and the glomeruli are all absolutely larger. By another series of experiments, he found that the rapidity of the flow of fluid in the renal artery of granular kidney was not half, often not a fourth, of what it is in the renal artery of a healthy kidney. He also shows by a very large number of observations, that the transverse section of the renal artery grows wider as the organ undergoes development, and proportionately to the weight of the kidney; and, further, that the peripheral resistance to the entering fluid grows relatively less, so that a greater quantity of blood passes in a given time through the organ.

By a careful comparison of the effects of colored injections on sound and on granular kidneys, he found that the latter permitted the fluid to pass through the walls of the blood-vessels with much greater ease; and not fluid only, but gelatine, prussian blue, chloride of sodium, and even solid grains of cinnabar,

and this without rupture of the coats of the vessels. This happened, not on those parts which showed most connective tissue growth, but in the vessels still otherwise apparently healthy. Careful injections proved, too, that the capillary net-work in granular kidneys was very scanty, and that in many cases the vasa afferentia anastomosed directly with the efferent vessels, being cut off from the glomerulus by the growth of fibrous tissue. On the changes in the walls of the vessels, he remarks that, as a rule, in spite of the fibroid growth of the intima, the lumina of the vessels are not smaller than normal; only exceptionally, when the endarteritis has reached a high grade, does this take place. He regards these changes as connected with the endarterial processes—described by Köster, Friedländer, Trompeter, and others—as taking place in almost all new formations of connective tissue, as they bear a distinct relation to the amount of interstitial growth. These facts are especially opposed to Gull and Sutton's theory that the narrowing of the lumina of the vessels by the new growth causes the obstruction to the circulation; they agree with independent observations that, as a rule, the vessels of granular kidneys are certainly not of less calibre than normal; they prove that the anatomical condition of the organ itself, independent of any vital changes, such as arterial contraction, causes a great increase in the resistance to the circulation through it: they explain the clinical phenomena of polyuria, and albuminuria by the increased permeability of the vascular walls.—*British Medical Journal*, December 24, 1877.

**ABSCESS OF THE HEART.**—Abscess of the heart is not a very rare termination of myocarditis, and pyæmic abscess has been noted by Schroetter, Klob, Stanley, Latham, Bennett, etc. The following case, however, reported by Drs. Creveling and Button, of Auburn, is somewhat unique: Thomas Brennan, aged 63, entered the State prison, June 6, 1877. On the 9th, 12th, 22d, and 29th of the same month, he complained of cardiac pains, which were sometimes relieved by anodynes, and sometimes passed off without treatment. July 15th he was again attacked, the pains grew rapidly more severe, and did not leave him until his death, Nov. 30th. At the autopsy the pericardium was found closely adherent over the entire surface of the heart: the endocardium was normal, showing no signs of inflammatory changes. A hard mass was discovered in the wall of the right ventricle, extending from about the middle of this cavity to near the top of the auricle, and encroaching somewhat upon both these cavities. On opening into the tumor, an ounce or more of good laudable pus escaped, the greater portion of which lay opposite the upper half of the right ventricle. The abscess had not pointed or given any other sign of spontaneous rupture. The external wall was about a quarter of an inch thick, the internal a trifle less. The whole amount of pus was situated in the muscular structure of the right side of the heart, which was still firm, giving no evidence of softening or degeneration; nor was there any endocarditis or valvular disease.

**A CENTENARIAN.**—Anton Miktancic, the oldest inhabitant of Trieste, Austria, died on January 10th, at the ripe age of one hundred and thirteen years and nine months.

**DR. FLEISCHMANN.** of Vienna, a well-known authority on diseases of children, is dead.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## COSTLY INSANE ASYLUMS.

UNDER ordinary circumstances the report of the superintendent of an insane asylum is not very interesting to the general practitioner, nor are such documents always intelligible in their statements or exact in their statistics. In some respects Dr. Kirkbride's report of the Pennsylvania Hospital for the Insane, for the year 1877, has a relevancy of its own to the important questions as to the best method of building and providing for the insane, which commends it to the careful attention of medical readers. The tables show the sex, age, and occupation of the 7,663 patients who have been admitted into the hospital since 1841, thus furnishing pretty reliable data as to the prevalence of insanity in the various departments of human activity. Of the whole number, 458 were farmers, 401 tradesmen, 444 clerks, 93 physicians, 98 lawyers, and 48 clergymen. The onset of the disease appears to be most probable between the ages of 20 and 30—1,360 of the whole number having been entered between the ages of 20 and 25; 1,326 between the ages of 25 and 30; and, consequently, 2,686 out of 7,663, or thirty-five per cent. of the whole admissions, between the ages of 20 and 30. Of this extraordinary percentage 1,430 were males and 1,256 females; showing a pretty even balance of the probabilities between the two sexes. A slight decrease in the probabilities appears to take effect between 30 and 35, and only 974 were admitted between those ages, against 895 between 35 and 40; 702 between 40 and 45; 295 between 45 and 50; 200 between 50 and 55; and 144 between 55 and 60. But although the percentage of admissions to an asylum is so great between 20 and 30, as compared with more advanced lustra, it must not be concluded that the probabilities, when measured by the whole number between those ages, are really so excessive as appears at first glance. Life is a process by which the unsound in body or mind are pretty carefully winnowed

from the mass by diseases of various types during the first ten years of self-support and self dependence. Taking any circle of society as an example, the number who are between 20 and 30 years of age will always be found largely in excess of the number between 30 and 40, and still more largely in excess of that between 40 and 50. It may be stated that, for the most part, in the struggle for existence, those who live beyond the age of 35 or 40 must be regarded as the soundest and fittest, both mentally and physically, for survival. The weak and unsound are usually driven to the wall, and die of privation and disease, or are reduced to insanity and pauperism, during the first ten or fifteen years of their self-dependence.

The percentage of cures urged by Dr. Kirkbride need not here be discussed, since he has raised more practical questions that directly concern the cost of asylums for the insane.

It may as well be premised here that, if the Association of Medical Superintendents of American Institutions for the Insane, for whom, in view of recent criticisms, Dr. Kirkbride evidently speaks, has no better justification to offer for the extravagant expenditures of the last ten or twelve years, than that Association has outlived its utility, and should be at once dissolved to make room for some organization and policy embodying a clearer perception of what the rights of the tax payers are. As Dr. Kirkbride affirms, the propositions which have been unanimously adopted by that Association have been tested everywhere throughout the land by men of the highest ability, and with the most varied fields of observation. The question is not whether hospitals with a high class of accommodations have or have not advantages over those of less elaborate construction, nor whether countries can or cannot make good and reliable provision for their own lunatics; they can, if they will, of course; it is not likely that they will in the majority of instances. On the contrary, the question is whether a State can afford to provide shelter for its insane at \$3,500 per capita, and food and medical attendance at from \$7 to \$8 a week, as the State of New York is now doing. It has been shown in these columns, by the testimony of experts of undoubted competence, that hospitals that furnish all the accommodations essential to the largest percentage of recoveries can be erected at a per capita cost of \$1,000, and, by the reports of the Northampton (Mass.) asylum, that \$3.50 a week is a sum amply sufficient to provide for maintenance. Now, while depreciation of any unwarranted attempt on the part of outsiders to undervalue the experience of experts is very natural and proper in the medical superintendent of an asylum, he is bound, nevertheless, to furnish a specific answer to specific allegations; and the specific allegation here is that extravagant expenditures have been the rule for the last twelve years, under the influence of the Association, and that such expenditures have never even called



out a resolution to the contrary. Under such circumstances the presumption is that the Association takes the responsibility not merely of fostering the erection of asylums at \$3,500 per capita, but of Dr. John P. Gray's established figures of \$7.96 per week for the maintenance of pauper insane. Possibly, indeed, the distinction between ordinary expenditures and current expenses adopted by Dr. Gray has received the sanction of the Association of Medical Superintendents. The truth is—and it may as well be owned first as last—there is no department of medicine in which so large an amount of vapid theorizing passes current for sound science as in this department, nor any department which it is the duty of the medical press more thoroughly and decidedly to overhaul. Read this passage, page 25, of Dr. Kirkbride's report, for example, in juxtaposition with the recent editorial in THE MEDICAL RECORD on "Asylum Building for the Insane in the United States":

"In addition to liberal appropriations for the improvement of the original State hospital buildings at Harrisburg, and for the extension of the work on those of Danville and Warren, the year has been specially distinguished by an act providing for a new hospital, for seven or eight hundred patients, in the south-eastern district of Pennsylvania."

In other words, although Pennsylvania has just expended some millions at Danville and Warren, she must expend two and a half millions more in the south-eastern district before her jails and poor-houses can be even theoretically emptied of the pauper insane now consigned to them; and it is quite unnecessary to remind Dr. Kirkbride that, were this new asylum, with a capacity for 800, to be completed and occupied to-morrow, a considerable percentage of the insane poor of the State would have to be left where they are, or another asylum of equal capacity would have to be erected for their accommodation. Nothing can be more unpleasant than the public duty that compels us to press these facts upon the attention of the profession. But the time has come for medical men at large to disavow a system that involves such extravagant expenditure of the public money to provide for insane paupers, and then provides for but a small proportion of them; and to express their disavowal in unmistakable terms.

#### SPONTANEOUS GENERATION — BASTIAN'S REPLY TO TYNDALL.

THE great problem of spontaneous generation again attracts the attention of scientists by the publication of fresh manifestoes by those who take the lead in advancing the rival theories. The side-issues involved in these investigations bear so strongly upon many of the most advanced views of eminent physicians, that the train of reasoning developed by this question should be followed by all who would study accurately the genesis and pathology of infective diseases.

Without referring to Redi, Needham, Spallanzani, Pasteur, and others, with whose works the student of the subject is doubtless familiar, it may be sufficient for the present purpose to state that Prof. Tyndall, as the result of recent and elaborate experiments, has drawn the inference that the cause of infection is in the air, and that the dust-particle is the cause of putrefactive life. He has also presented a number of instances which tend to disprove the argument of Bastian, that bacteria and their germs being destroyed at 140°, their presence after such exposure must be due to spontaneous generation.

In the last number of *The Nineteenth Century*, Dr. Bastian returns to the charge in support of his theory, and the following is an abstract of his reply to Prof. Tyndall: He states that he "commenced the examination of the subject in 1869, when a scrutiny of the evidence in favor of the germ theory and against spontaneous generation, as embodied in the writings of M. Pasteur, did not by any means convince him of the irreproachable nature of this evidence, and notwithstanding all the skill and care with which the experiments had been conducted." He says, "It was not indeed the experiments themselves, so far as they went, with which I was dissatisfied, but rather that I could not assent to the validity of the inferences which Pasteur had drawn from them."

Dr. Bastian further claims that the cardinal deductions and inferences of M. Pasteur, which he challenged in 1870 and 1871, have now (as he recently showed in Vol. XIV. of the Zoological Section of the Journal of the Linnean Society) been finally overturned. Whether or not M. Pasteur's germ theory may ultimately be established on other grounds, it is now perfectly obvious that it was not tenable on the ground alleged in 1870.

After defending himself from charges of vagueness, and deprecating the personal attacks made upon him from all directions, Dr. Bastian thus sums up his opinion of the recent elaborate experiments of Prof. Tyndall: "All this discussion about the nature of the atmospheric dust, visible and invisible, together with elaborate and ingenious experiments to prove its infective nature, so far as fermentations are concerned, has not really advanced the main question one iota."

"It is, as we have seen, impossible for Prof. Tyndall, by all the refinements which he has introduced into the study of this part of the subject, to get beyond the simple conclusion of Schwann, long anterior to the labors of Pasteur, that the air contains a "something" which is infective, but we are no more able to say now than Schwann was in 1837, what is the precise nature of this something."

In this view, he states, "I am supported by high authority."

"My more simple experiments, with glass vessels, from which most of the air had been expelled by

boiling, and in which heat was relied upon as the scourge of all antecedent life, had, moreover, thoroughly shown that the essential question does not lie in the direction of Prof. Tyndall's experiments."

The verdict in connection with spontaneous generation essentially depends on the answer which can be given to another problem. As the late Prof. Jeffries Wyman said: "The issue between the advocates and the opponents of the doctrine in question clearly turns on the extent to which it can be proved that living things resist the action of water at a high temperature."

In regard to the appearance of organisms in liquids previously boiled and guarded, Dr. Bastian says only two interpretations are possible.

There must have been a survival of organisms or germs, or else a new and independent birth of living particles. Yet, if we look at them merely in the light of previous experience, each of these interpretations seems alike at variance with our actual knowledge.

Should it be asked what warrant there is for supposing that living particles could come into independent birth from fluids, he replies, "that the general kinship between living and non-living matter is freely admitted by men of science at the present day," in support of which he quotes a passage from Huxley's "Evolution, and the Origin of Life." And further, he states our most profound thinkers and foremost men of science believe that such a process *did* take place in the early history of our planet. Among those who have expressed such a belief reference is made to Spencer, Lewis, Darwin, and Huxley; finally Virchow, whom he quotes as follows: "Nevertheless I admit that if we indeed want to form an idea how the first organic being could have originated by itself, nothing remains but to go back to spontaneous generation. This is clear. If I do not want to suppose a creation theory; if I do not want to believe that a special creation existed, who took the clod of clay, and blew his living breath into it; if I want to form some conception in my own way, then I must form it in the sense of '*generatio æquivoca*.'"

On the all-important question of the death-point of living matter, and the degree to which a power of resisting prolonged and higher temperature is conferred upon bacteria or their germs, by virtue of their previous desiccation, Dr. Bastian is quite unable to accept Prof. Tyndall's "assumptions." He says: "I go no further than to say that in the present state of the evidence bearing upon the subject, I regard the hypothesis of spontaneous generation as the most logical and consistent interpretation of the facts which are at present known. I am far from asserting that further experiment *may* not shift the balance of evidence in the opposite direction; but, in order that this may be brought about, something more than assumption must be forthcoming."

The foregoing is the substance of Dr. Bastian's reply contained in a long article in the last number of *The Nineteenth Century*.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, January 23, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

DR. BEVERLEY ROBINSON presented a patient upon whom he had performed tracheotomy for spasm of the glottis. The points of interest in the case were, first, the apparent absence of a cause for the spasm, and secondly, the admirable adaptation to the requirements of the case of Durham's tracheotomy-tube. The history was as follows:

#### A CASE OF SPASM OF THE GLOTTIS WITHOUT RECOGNIZED CAUSE. TRACHEOTOMY.

A. S., married, 54 years of age, basket-maker, came under my care Dec. 11, 1877. He has always been delicate, but has had no special diseases during many years. About 1857, patient had an attack of whooping-cough, from which he suffered severely. Seven years ago he commenced to have paroxysms of dyspnoea, which came on at intervals of six months. Two weeks before seeing me, the attacks of difficult breathing became much more frequent, but did not notably increase in severity. He had during this time two or three attacks each day, and on Dec. 10th had as many as eight. Formerly the attacks came on while at meals; latterly the dyspnoea has attacked him both day and night, and at irregular intervals. Five or six years ago he was troubled with lumbricoids. Since then he has not noticed any appearance of them. His nose, however, itches excessively, and has for years. No itching around anus. Pupils normal. Appetite generally good. Bowels regular. Occasionally patient has attacks of vertigo. He lost consciousness on several occasions some years ago, but not latterly. In these attacks he did not foam at the mouth, bite his tongue, or have convulsions. His vision is normal. There is no difficulty of deglutition. All the muscles of the face contract by an effort of will; no numbness or queer sensations in any part of the body; walks as well as ever; strength of grasp normal; memory always poor since boyhood; breathing good, except during paroxysms, until two weeks ago, when patient commenced to have a hacking cough and tickling in the throat. The cough, he believes, is the cause of greater frequency of his attacks of dyspnoea. Patient is a dyspeptic.

*Physical examination* reveals congestion of fauces and considerable elongation of uvula; epiglottis and arytenoid cartilages reddened; vocal cords dirty-white color. While examining patient's larynx, he was suddenly taken with an attack of very intense dyspnoea, and sank upon the floor. There were stridulous inspirations, and during expirations a sort of wailing cry. This attack lasted about five minutes, and patient was in greatest anxiety; it was relieved by striking him in the back with a book, and with all my strength. Inhalation of ether did not appear to help him (doubtless on account of approximation of the vocal cords during inspiration). The examination of the chest, after the termination of the attack, was almost negative; a few medium-sized bronchial râles only were disseminated in the left lung; heart normal.

R. Potass. bromidi. . . . . 3 j.  
Tinct. belladonnæ. . . . . ℥ x. at bedtime.



*Dec. 13th.*—Attacks not relieved; excision of uvula; an application of tincture of iron and glycerine to the larynx brought on a new attack of dyspnoea.

R. Potass. bromidi, 3j. every hour.

I saw patient after he had taken five doses; they had little or no effect.

R. Chloral, 10 grs. every hour, from 11 P.M. till 6 A.M.

*Dec. 14th.*—Had no attack during the night; one attack this morning. Supposing patient might have worms, I ordered a purge with Hanyadi János, to be followed by santonine, gr. iij.

Repet. chloral less frequently.

*Dec. 15th.*—No worms were discovered; two spasmodic attacks. Repet. chloral, 10 grs. t. in d. sumend. and grs. xx. at bedtime. R. Inhal. conii; bowels to be kept loose; light meals; none after 5 o'clock P.M.

*Dec. 21st.*, 10 A.M.—Came to my office in a carriage; very weak, breathing with great difficulty, and considerably cyanosed; sent him to hospital, and ordered moderate inhalations of chloroform.

3 P.M.—Tracheotomy performed, with the assistance of Dr. A. H. Smith.

*Dec. 22d.*—Coughed tube out of trachea; reintroduced with great difficulty, on account of false passage made by efforts of others to replace it.

*Dec. 23d.*—Patient breathing quietly; eats fairly; moderate expectoration.

R. Mist. expect. (ammonii chlorid., etc., potass. bromidi).

*Dec. 31st.*—Patient has not had for three days the stridulous breathing and spasm of the bronchial tubes which he had at times for several days after the operation; walking about the room.

*Jan. 3, 1878.*—Wound around cannula healed; no pain from wearing tube; expectoration very slight.

*Jan. 11th.*—Patient left hospital, wearing a permanent tube.

*Jan. 13th.*—Had a very severe attack of dyspnoea while I was examining fauces; during attack air was passing freely through tube.

R. Potass. iodidi (gr. v.) and sp. æth. comp. ℥ xxx. t. d. s.

*Jan. 17th.*—No more spasms. Repet. mist.

DR. FLINT remarked that the symptoms in the case were suggestive of thoracic aneurism.

DR. ROBINSON replied that a very careful examination failed to detect any signs of the disease.

DR. BRIDGES did not think that one tracheotomy-tube was any better than another, as it was important that each should fit the patient for which it was intended. The longest period which any patient of his had worn a tube was six months. The case was one of syphilitic necrosis of the thyroid cartilage. He had never had much difficulty in introducing the tube.

DR. ROBINSON asked whether an essential asthmatic condition could give rise to the dyspnoea in this case.

DR. FLINT thought that such cases were very rare. In the case in question he did not hear the earlier part of the history. His supposition was, however, in the direction of aneurism.

DR. ROBINSON remarked that the disease had continued for seven years.

DR. FLINT admitted that such an element of time was a strong one against his supposition.

PROF. WM. OSLER, of Montreal, then read, by invitation, an elaborate and interesting paper on Hog Cholera.

#### ULCER OF DUODENUM DIAGNOSTICATED BEFORE DEATH.

DR. OSLER then presented a specimen of ulcer of the duodenum removed from a patient of Montreal, who had been seen in consultation by Dr. Flint. The patient had suffered for ten years with attacks of pain in the stomach, accompanied by occasional vomiting. During this period he had four or five attacks of hematemesis. The man died of exhaustion and Dr. Osler made the autopsy. An ulcer was found in the duodenum three-quarters of an inch in length and half an inch in breadth, just outside the pylorus and involving the gastro-epiploica dextra. Dr. Osler remarked that the case was of interest in reference to the different opinions which were entertained regarding its nature, and especially in connection with the diagnosis of duodenal ulcer made by the physician in attendance and previous to the death of the patient.

DR. FLINT remarked that cases of that sort were very rare, and that the diagnostic points which distinguished them from ulcer of the stomach were not well established. The history as related by Dr. Osler was correct. The patient had suffered for ten years with pains referable to the region of the stomach. They occurred mostly in the spring and autumn, and as a rule continued about a month. At first they were slight, so that pressure and stimulants relieved them, but in the course of years they became very severe. In the intervals of these attacks his health was good. The symptom of vomiting was duly considered, as was also the hematemesis. Dr. Flint was inclined, however, to look upon the affection as of a neuralgic character, the length of time which the symptoms had existed ruling out the possibility of organic disease. Although the possibility of the existence of an ulcer was suggested to his mind, there were not enough symptoms to establish a diagnosis.

DR. PETERS asked if there were any evidences of healed ulcers in the stomach.

DR. OSLER replied in the negative. He stated that the diagnosis of duodenal ulcer was made by the attending physician from the fact that the patient had extreme stenosis of pulmonary orifice, a large bloody stool, and had no hematemesis at the time. This circumstance was sufficient to convince the gentleman in question that the source of the blood was outside of the stomach.

DR. PETERS believed that there were twelve cases of duodenal ulcer in the records of the Society.

#### EXTREME STENOSIS OF PULMONARY ORIFICE.

DR. OSLER presented a second specimen, which consisted of a heart removed from a child four months old. The patient had suffered since birth with symptoms of cyanosis; otherwise there were no evidences of any trouble either about the heart or the lungs. He had never seen the child during life, but was merely called in to make the autopsy. When the pericardium was opened, the first thing which presented itself was an enormous right auricle, nearly the size of a small orange, which was distended with blood. The tricuspid orifice was very much contracted, as the result of previous endocarditis. There was extreme stenosis of the orifice of the pulmonary artery, so that a Bowman's probe nine-tenths of a millimetre could scarcely enter. The artery beyond the orifice was of fair size, and there were no signs of degeneration in it. He was of the opinion that the affection originated in an intra-uterine endocarditis.

On motion of Dr. Dalton, the Society tendered a vote of thanks to Prof. Osler for his able and instructive paper; also for the interesting specimens exhibited by him.

The Society then went into Executive Session.

*Stated Meeting February 13, 1878.*

DR. J. C. PETERS, PRESIDENT, IN THE CHAIR.

INAUGURAL ADDRESS.

AFTER the reading of the minutes, the President, Dr. JOHN C. PETERS, made the following remarks:

Such a strange and moving topic was introduced at the last meeting by a stranger, and so many strange faces were seen here, and the whole proceedings had such an unhomelike aspect, that I did not feel justified in "throwing pearls before swine," and reserved the expression of those feelings of gratitude which I feel for the high honor you have paid me.

It is a very high honor to be presiding officer of this Society, for this chair has been filled successively by John A. Swett, Willard Parker, James R. Wood, T. M. Markoe, Wm. H. Van Buren, C. E. Isaacs, John T. Metcalfe, Robert Watts, Edmund R. Peaslee, John C. Dalton, Alfred C. Post, T. C. Finnell, Abraham Jacobi, Gudson Buck, Henry B. Sands, Wm. B. Bibbins, Lewis A. Sayre, Joseph Hutchinson, Alfred L. Loomis, Erskine Mison, Herman Knapp, Francis D. Lafield, Charles K. Briddon, and last, but not least, Edward G. Janeway. The Society was founded in 1814 and '45, by Middleton Goldsmith, John C. Peters, Lewis A. Sayre, Gustavus A. Sabine, Wm. C. Roberts, Wm. H. Macnevin, James Crane, Robert Tones, John A. Swett, Willard Parker, Robert Watts, Thomas M. Markoe, Alonzo Clark, John Forry, James R. Wood, Isaac E. Taylor, W. W. Jones, Wm. H. Van Buren, Thaddeus Halstead, C. E. Isaacs, John T. Metcalfe, Edward Hall, H. D. Bulkley, George Wilkes, C. R. Gilman, R. McCready, and others of like stamp. A society founded by men of such experience and ability had necessarily to prosper. Its workings have always been of the most practical kind, but science was largely represented in its very beginning, and steadily have been trained up within its ranks men who have no superiors at the bedside, in the lecture room, and in the highest walks of science, and who have so far outstripped the busy and experienced general practitioner, with whom deaths are few and *post-mortems* something extraordinary, that something may well be done to entice these worthy men to our meetings.

It is already becoming a general complaint of those who were educated thirty years ago, that the proceedings of many of our societies are becoming too erudite and scientific for the average general practitioner, who, as some one has said, will neither die nor be born again, and hence must be aided in every possible way, or left to perish slowly by the way-side. A pathological society is not an assemblage especially of tender-hearted men; but I submit the question to it.

Of the 23 physicians who founded this Society 34 years ago, 13 are still alive and 9 are still active members, viz.: Drs. Alonzo Clark, Willard Parker, Thomas M. Markoe, Gustavus A. Sabine, Isaac E. Taylor, James R. Wood, Lewis A. Sayre, John T. Metcalfe, and John C. Peters.

GLIOMA OF THE CEREBELLUM.

DR. T. E. SATTERTHWAITE presented a specimen of the above with the following history:

G. B., 24, Germany, single, was admitted into the Presbyterian Hospital, Aug. 3, 1877.

His previous health had been good, and he denied having had venereal disease. In the preceding June he awoke one morning with a severe pain in the back of his neck, at about the junction of the last cervical with the first dorsal vertebrae. The pain soon disappeared, but was brought on again by leaning over to

wash his face. Afterwards it would leave him, to return when he again bent his head over. On July 3d the pain left the neck and appeared in the back of the head. Soon after this the attacks of pain in his head became more frequent and without apparent cause. When he was admitted to the hospital, pain was located in the occipital and supraorbital regions, and was so severe that he would at times scream out. The attacks came on four or five times a day, and usually lasted about half an hour. The pain was much more severe when he was lying down. He had little rest at night. Appetite was good. He received a variety of medicines: croton-chloral-hydrate first, in 5 gr., and later in 25 gr. doses, but without benefit; ergot in  $\frac{1}{2}$  i. doses, with counter-irritation to the back of the neck, was also resorted to; also bromide of potassium. At one time iodide of potassium was employed, and he took 100 grs. a day, so the *fd. ext.* of conium in 7 m. doses. Under this latter the pains lessened, but soon returned, and with them vomiting. This attack, however, passed away, and with it the pains; they, however, soon returned, and the same treatment was resorted to without success. About the 25th of September he was given morphia for the pains. The most effective remedy, however, was iced cloths to the head. He now said "he felt as if there was a chopping-machine in the back of his head," and he had a burning, cutting feeling in the supraorbital region, extending upward  $2\frac{1}{2}$  inches. At times he would feel perfectly well. On Oct. 1d he took phosphorus in minute doses,  $\frac{1}{4}$  of a grain every four hours. On the 23d of October he went out on a pass, saying he felt perfectly well. On the following day, however, he commenced to vomit, and the pains returned as severely as ever. On the 26th he had suppression of urine. He was now taking morphia in large doses. On November 1st he had another attack of pain, and a seton was passed through the back of the neck. The pain diminished at the back, but increased in front. A seton was then introduced in the supraorbital region.

On November 12th, the patient was noticed to stagger a good deal in walking. On November 15th he could sleep but little. On November 19th he felt stronger and went out on a pass. He staggered but felt better. On November 20th, at 9 a.m., he was found in a cyanotic condition—breathless. Artificial respiration was kept up for an hour and a half, but without avail.

At the autopsy, twenty-four hours after death, the pupils were found evenly and semi-dilated. The heart and sac were normal, and the lungs were also, except that they showed slight adhesions at both apices. The stomach was abnormally small, but otherwise showed no points of interest. The spleen was congested and weighed 104 ounces. Liver and kidneys were practically normal.

**Brain.**—On the posterior and upper portions of the cerebellum, between the hemispheres and on the middle line was found a tumor about two inches in diameter, encroaching on both hemispheres, but not distinctly separated from them. The tissue of the brain was found abnormally anæmic, cedematous, and softened. The sinuses, however, were free; the lateral ventricles were dilated, containing an excess of fluid; the foramen of Monro easily admitted a No. 10 English sound. As an interesting point in this connection, the pituitary body was dilated with fluid, and formed a little sac three-quarters of an inch in diameter, and the probe passed from the third ventricle, traversed the infundibulum, and entered the pituitary body.



The tumor was not observed at first, owing to the fact that its color and consistence were about that of the brain. When cut into, however, it was found to be unusually soft, and in consequence was difficult to preserve. He had the occipital neuralgia, the pain, the staggering, and the vomiting of tumor of the cerebellum, but he had no disturbances of speech, sight, or hearing. His pulse was about 90, weak. His temperature was 96 or 97, but rarely 98° F.

The accumulation of serum in the ventricles, and their distension, might, I presume, be explained by the pressure of the growth upon the tentorium, and so upon the straight sinus, thus retarding the venous flow from the interior of the brain; but how account for the supra-orbital pain?

Dr. GIBNEY inquired whether the supra-orbital pain was due to the fact that the tumor involved any nerves arising in that region of the brain, or whether it might not be due to some disturbance of the function of the sympathetic ganglia?

Dr. SATTERTHWAITE replied that the supra-orbital pain was one of the interesting features of the case.

On examination of the root of the fifth pair, no noticeable change was detected. The location of tumor also was not sufficiently near the pons to produce pressure upon the roots of the fifth pair. He thought, therefore, that pressure produced by the tumor must be eliminated, as a cause for the supra-orbital pain.

It was possible that the pressure produced by the enlarged and distended central cavities of the brain might have been a factor in the production of the pain, and it was also possible that the explanation suggested by Dr. Gibney was correct.

#### TAPE-WORM AND ANOMALOUS SYMPTOMS.

Dr. ROBINSON presented a tape-worm that had been discharged from a gentleman who consulted him for supposed organic disease of the heart, pain in the precordia, and attacks of vertigo. On examination there was found a systolic murmur confined to the apex. Keeping track of the case and somewhat doubtful of the diagnosis, the fact was elicited that some years before the patient had discharged a flattened worm. This circumstance was the more curious from the fact that there was nothing in the man's history that pointed to the existence of such a parasite. However, a drachm dose of the ethereal extract of male fern was given on an empty stomach, followed by a purge. This was sufficient to discharge a large portion of a tænia. The head could not be found, but Dr. R. thought it was not always necessary that such should be discharged to insure the disappearance of the worm. Sixteen months ago he had presented a tænia, minus the head, discharged from a female cook, and stated at the time the probability that there would be no return of the disease. That patient had been perfectly well since then, and had presented none of her former symptoms referable to the presence of the worm.

Dr. VAN GEISEN asked if the heart-symptoms ceased in the case presented, after the discharge of the tape-worm.

Dr. ROBINSON had not examined the patient's heart since that time, but all the subjective symptoms had disappeared.

Dr. VAN GEISEN believed that a murmur in that locality would indicate organic disease, and as such could not be affected by the special treatment employed.

Dr. ROBINSON did not think it was necessarily an organic murmur, but, on the contrary, believed it to be

functional, producing reflex insufficiency of the tricuspid valves.

Dr. CARPENTER asked if there was any venous pulsation in the neck indicating such insufficiency.

Dr. ROBINSON said that no such condition was noted. But there might be tricuspid insufficiency without it. The pulsation was not shown sometimes until serious embarrassment of the breathing occurred in consequence of lung complications.

The Society then went into Executive Session.

*Stated Meeting, February 27, 1878.*

Dr. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### CONGENITAL TALIPES CALCANEUS, WITH ARREST OF DEVELOPMENT.

Dr. GIBNEY presented a patient having congenital talipes calcaneus, with arrest of development.

The history was as follows:

On the 14th of January, 1878, there was presented at the out-door department of the Hospital for the Ruptured and Crippled, a female child *et. 2 years*, presenting the following points of interest: The right leg was seemingly shorter than the left, curving anteriorly, and giving a marked fulness on its anterior aspect middle third; a small, dimple-like depression at the summit of this fulness, in which, the father asserts, the great toe lay imbedded at birth, the foot in *complete* dorso-flexion, making thus a case of talipes calcaneus extremis; a talipes equino-valgus now existing, the foot being one-half inch shorter than its fellow, and minus the second toe, as well as the corresponding metatarsal bone; a subluxation outward, amounting almost to a luxation at the tibio-tarsal joint, reducible on flexing the foot, and inverting without causing any pain. No special loss of power in the muscles, and no loss of faradic or galvanic reactions, although this examination was not perfectly satisfactory, on account of the crossness of the child; a marked genu-valgum, with a moderate degree of subluxation inward at the knee (a grating or slipping is distinctly felt here on flexion).

The labor was natural (head-presentation), and complete in one hour. No history of any fright during utero-gestation. Wife reported as delicate, while the father is a stout, healthy man.

The depression was never in a state of ulceration, so far as I can learn. I bring the case to afford a possible explanation for these dimples or depressions observed in cases of club-foot and other congenital deformities. The case recently presented by Dr. Putnam-Jacobi called forth some discussion on this subject, and no adequate explanation seemed to be offered.

In the one I now present, a clear history has been obtained, and hence the interest attached.

#### CARCINOMA UTERI.

Dr. POST presented a specimen of carcinoma of the uterus, bladder, and rectum.

Dr. POST also exhibited specimens of diseased lymphatic glands removed from a boy aged nine years. The patient had been operated upon for the same trouble two years ago, since which time the enlargements had recurred. The point of interest in the case was the situation of the glands, entirely behind the sterno-cleido-mastoid muscle, and which, in consequence of the proximity of important vessels, required extraordinary care in the operation.

## DOES CANCER EVER COMMENCE IN THE VAGINA?

Dr. VAN GLASSEN asked, in regard to Dr. Post's case of carcinoma uteri, whether the disease ever commenced in the vagina. He had a case in point which seemed to prove such a possibility.

Dr. Post thought that such a state of things must be very rare.

Dr. BRIDGON had met with one such case in which the cancerous growth was entirely confined to the posterior wall of the vagina. The case was seen in consultation by Dr. Van Buren. Dr. Bridgon removed the growth by simply peeling it from the subjacent tissue, showing that the disease was quite superficial. It returned, however, in the course of three years afterwards, and involved the bladder, rectum, and uterus.

Dr. BEVERLEY ROBINSON presented a specimen of acute miliary tuberculosis.

## SPASM OF THE GLOTTIS, DUE TO PRESSURE ON THE RIGHT RECURRENT LARYNGEAL NERVE, CAUSING DEATH FROM ASPHYXIA.

Dr. W. T. BULL presented a specimen with the following history:

C. O'C., æt. 25, was brought to the Chambers Street Hospital, Feb. 16th, at 11.45 A.M. When first seen, he was walking with difficulty, supported by two men, coughing frequently, expectorating very offensive bloody mucus, and gasping for breath. There was considerable cyanosis of the face; the surface was cool, the pulse 100 and moderately full. The passage of air through the glottis or trachea was interfered with both in inspiration and expiration. The struggles of the patient prevented satisfactory auscultation, and percussion gave no marked dullness in any part of the chest. There was a trifling swelling of the neck externally, and pain on pressure over the larynx. The lower jaw was so firmly held that a screw-gag was necessary, in order to introduce the finger to the base of the tongue. No swelling could be felt there. The epiglottis could not be reached. The voice was clear on entering the wards, but soon became hoarse and inaudible.

The only information to be obtained from his friends was that for five days past he had had a cold, with pain in the back and chest, and during twenty-four hours previously to admission a cough with brownish expectoration.

It was resolved to use antispasmodics, and, if they proved insufficient, to perform tracheotomy, although the exact condition was very obscure. Fifteen minims of Magendie's solution of sulphate of morphia were given hypodermically, and ten minutes later chloroform inhalations. The struggles of the patient ceased, but the obstruction to the passage of air was unrelieved, and while instruments were being brought, respiration stopped entirely. Artificial respiration was resorted to, the tongue being drawn forward by a string passed through its tip. This was followed by gradual improvement. The air passed freely into the chest; respiration was regular, but shallow; the cyanosis disappeared; pupils were contracted. Tinct. belladonnæ, ℥v., were given hypodermically and repeated after fifteen minutes. Respiration became deeper, the surface of the body warm, the pulse 100 and of good volume. It was thought that the danger of asphyxia was past. Fifteen minutes elapsed without change in the condition, when there was a sudden interruption to inspiration. The breathing stopped at once, and the heart a minute later.

Autopsy twenty-four hours after death: Body of

well nourished muscular man, with thick layer of subcutaneous fat; heart normal; left ventricle empty and contracted, right containing a small soft clot; lungs exhibited marked congestion, with slight œdema, and on both sides old pleuritic adhesions; mucus membrane of the larynx, trachea, and bronchial tubes deeply congested, without exudation; in the groove between the trachea and œsophagus, on the right side of the neck and beneath the common carotid and subclavian arteries, an abscess apparently originating in the lymphatic glands; it formed a tumor three inches in length by one inch in diameter, extending upward as far as the middle of the right lobe of the thyroid, and downward to a point just below the bifurcation of the innominate artery. Its cavity contained healthy-looking, but offensive pus. No encroachment on the walls of the trachea or œsophagus, but thickening and infiltration of the tissues surrounding it, especially towards the trachea. The pneumogastric nerve and large vessels were normal; the recurrent laryngeal nerve, after winding round the subclavian artery, was imbedded in the dense tissue forming the tracheal wall of the abscess for a distance of two and a half inches. To the eye it presented nothing abnormal; other organs were healthy.

Dr. Bull said furthermore, that, while in view of the history and post-mortem appearances the case was clear enough, it had puzzled him very much. He regretted that tracheotomy was not performed at the outset. He had never heard of a similar case, and Dr. Peabody, who had made a careful dissection of the preparation, after a rapid search through pathological literature had been unable to find one. It seemed rational to consider it analogous to fatal cases of spasm of the glottis produced by the pressure of small aneurisms on one recurrent laryngeal nerve, which are recorded by standard authors.

## POST-TRACHEAL ABSCESS AND THREATENED SUFFOCATION.

Dr. BRIDGON related a case of a somewhat similar character, which at the time of its occurrence caused him no little anxiety. About sixteen years ago he was called to see a man in Dover street, who was reported to him as choking to death. When Dr. B. arrived he found the patient in extreme apnoea, with neck very much swollen, face purple, eyes gorged, pupils dilated, and altogether in a very alarming condition. In the act of depressing the tongue with a spoon a gush of pus apparently filled the windpipe, the man stopped breathing, and slid from his chair to the floor. The situation was critical, inasmuch as the means hardly justified the result. As no time was to be lost, and as the patient's brother, a policeman, who was present, was developing his interest in the case, Dr. Bridgon plunged a knife in the windpipe. Coincident with this there was an escape of pus from the wound and a gasp from the patient, which was promptly and cheerfully responded to by the operator. In this instance Dr. B. supposed that an abscess, which had been somewhere in the same location as in Dr. Bull's case, had burst in the trachea. The patient made a tedious, although perfect, recovery.

Dr. SAYRE asked Dr. Bull what was the probable origin of the abscess.

Dr. BULL replied that in all probability the origin was a lymphatic gland in the neighborhood, as it was distinctly circumscribed and unconnected with any diseased bone.

Dr. SAYRE stated that some time since he had been called to a prominent politician in Washington, who for



four or five days had been suffering from obstruction of breathing. Two or three incisions had been made in the neck with a view of giving exit to pus, but none was found. When Dr. S. arrived the man was suffering intensely, was cyanosed and breathing with extreme difficulty. The jaws were pried open and an abscess which pointed alongside the jaw was opened. The relief was marked and immediate. Dr. S. thought that in this case the abscess started in caries of the jaw, burrowed its way underneath the fascia, and pressed backward upon the trachea.

Dr. PETERS stated that in retro-pharyngeal abscess a certain number of cases arose in connection with diseases of the lymphatic glands, but in such the glands are more abundant than normal.

(To be continued.)

## Correspondence.

### THE CURE OF HIP-DISEASE BY OPERATION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I observe in your issue of this date an article from Dr. V. P. Gibney on "The Ultimate Results in Excision of Hip-joint," which contains so many inaccuracies and misrepresentations that I feel bound, in the interest of science, to notice it.

All of the cases to which I referred had been under the charge of Drs. Knight or Gibney, at the Hospital for Ruptured and Crippled, for a longer or shorter period, and left the hospital because the disease was progressing, and they were considered incurable, according to the statements made by the parents or physicians who brought them to me.

I have no other authority for my statement that they were discharged from the hospital as incurable, than the testimony of the patients themselves and their friends.

That they were incurable without an operation at the time I saw them and advised it, is evident from the fact that such accomplished surgeons as Drs. Jas. R. Wood, Stephen Smith, J. W. S. Gouley, Alfred C. Post, and others, who saw the cases with me, approved of the operations, and assisted me in them, or were present when I performed them.

The case of Potter, he says, "was never treated as an in-patient of the hospital, and I can find no record of his case." (The italics are mine.) He says, however, "Dr. Knight, the Resident Physician, has a distinct recollection of the case," and that he was under his treatment in the spring and summer of 1875, and he observed that the disease was progressing.

In Case VIII. of Chas. Smith, Dr. Gibney says he "was never in the hospital, and I have searched diligently for his name among the indexed out-door patients [all who were ever here are indexed] between the years 1872 and 1876 inclusive." (The italics are mine.)

Yet in the case of Potter he says: "*I find no record of his case;*" and yet in the next sentence states that Dr. Knight has a distinct recollection of it as being under treatment in the "spring and summer of 1875," the very period in which he declares that *all cases* were indexed. If Potter was omitted, why not Smith? I leave for Dr. Gibney to explain this contradiction.

In regard to Potter's present condition, he says: "Dr. Sayre tells me that he is cured, but is suffering

from malarial poisoning, is in the south of France, and, up to the last accounts, the mother was in search of certain baths reported as beneficial to patients with *hip-disease*."

I am very much surprised that Dr. Gibney, who professed to be in search of facts "for the sake of science," should so misrepresent the truth. Instead of my telling him that Potter was cured, I allowed him to read a letter from his mother, dated France, Jan. 21, 1878, in which she states, among other things: "Dick proved an admirable sailor; *he was never ill a moment* (the italics are mine); was up on deck nearly every day. He rides out sometimes in an open carriage, and sometimes goes on a donkey, which he enjoys very much." And she concludes the letter by "Dick bids me give you his love, and tell you that he is very well."

I have just received this letter, and I do not find the word malaria in it, or that he was suffering from any "malarial poisoning;" and from the fact that he rides upon a donkey, I presume that his hip is in good condition, or his mother would certainly refer to it.

I send these hurried notes, that the profession may suspend their judgment until I have time to note the other inaccuracies contained in Dr. Gibney's paper.

Respectfully,

LEWIS A. SAYRE.

285 FIFTH AV., March 16, 1878.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 10 to March 16, 1878.*

SMART, CHARLES, Capt. and Asst. Surgeon. Assigned to temporary duty at Fort Preble, Me. S. O. 19, Div. of the Atlantic, March 11, 1878.

CARVALLO, C., Capt. and Asst. Surgeon. Leave of absence extended two months. S. O. 51, A. G. O., March 9, 1878.

PORTER, J. Y., 1st Lieut. and Asst. Surgeon. Granted leave of absence for 20 days, on condition that he furnish satisfactory medical attendance. S. O. 29, Dept. of the South, March 12, 1878.

BEALL, G. T., Capt. and Medical Storekeeper. Granted leave of absence for two months on surgeon's certificate of disability. S. O. 51, C. S., A. G. O.

The following named ast. surgeons have been ordered to report in person to the President of the Army Medical Board for examination for promotion, and, upon completion of examination, to return to their proper stations:—S. S. Jessop, Peter Moffatt, Charles Styer, J. K. Corson, and Wm. R. Steinmetz.

TWINS IN FRANCE.—The relative frequency of twins in France has been made the subject of a statistical memoir to the Academy of Sciences, in which the statistics of the town of Nîmes from 1790 to 1875 are collated. During this period, 1262 deliveries of twins have been registered in a total number of about 130,000 births. Of the women thus distinguished, forty-eight had been twice delivered of twins; two, three times, and one, four times. M. Hermann, in his "Travaux Statistiques de la Russie," records, apropos of the foregoing, the case of a peasant at Moscow, one Fedor Vassilet, who had had, by two wives, 87 children. His first wife was confined 27 times, in 16 of which she bore twins; in 7, triplets; in 4, quadruplets. The second wife gave birth to 18 children in eight pregnancies. Vassilet was 75 years old in 1782, and 90 years later (1872) 83 of the 87 were still living.

## Medical Items and News.

**CONTAGIOUS DISEASES.—WEEKLY STATEMENT.**—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 16, 1878.

| Week Ending       | Typhus Fever. |   | Typhoid Fever. |   | Scarlet Fever. |    | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|---|----------------|---|----------------|----|----------------------------|----------|-------------|------------|
| March 9, 1878...  | 0             | 3 | 89             | 3 | 77             | 73 | 1                          |          |             |            |
| March 16, 1878... | 0             | 5 | 94             | 0 | 98             | 81 | 0                          |          |             |            |

**MEDICAL WOMEN.**—Thirty-five women have studied medicine in Paris since 1865. Of these, nine have received diplomas.

**GERMAN UNIVERSITIES.**—Germany has a university for every two millions of inhabitants.

**DR. JOHN E. TYLER.**—Dr. John E. Tyler died at his residence in Boston, March 9th, aged fifty-eight years.

**NEW YORK STATE WOMAN'S HOSPITAL.**—Dr. Nathan Bozeman has been elected surgeon to the New York State Woman's Hospital, to fill the vacancy caused by the death of Dr. Edmund R. Peaslee.

**LARGE INFANTS.**—Dr. Wm. C. Wile, of Sandy Hook, Conn., writes: "I desire, through the medium of the Record, to put on record the following singular cases of large children following one another in the same mother. Works on midwifery generally depreciate the accounts of large births, but the following can be amply substantiated, as I weighed them myself. Mrs. B., about twenty-three, very muscular, large-boned woman, was delivered of a living child by myself with the aid of the forceps, August 1, 1874, which weighed before dressed fifteen pounds and two ounces. She was delivered May 12, 1876, by the same means, of another child (living) which weighed fifteen pounds before being dressed. The two foregoing children were girls. May 13, 1877, she was delivered again in the same way of a living boy which weighed undressed fourteen pounds and fourteen ounces. Thus making three children, living when born, and perfect in point of development, which averaged *fifteen pounds a piece*. Both parents were Irish. I also delivered Mrs. L., last week, of a living child (boy) which weighed fifteen pounds and one half an ounce. I also delivered Mrs. H., April 14, 1874, assisted by Dr. Wm. Bunnt, of Danbury, of a dead child (having exhausted every other means, we had to perform craniotomy) which weighed, without the brains, *twenty pounds*. This child was perfectly formed in every respect, and it was with the utmost difficulty that we could deliver the body after the head had been born.

"These seem to me remarkable cases, and the more so when we read in works on obstetrics of the extremes in weights. These cases occurred in about three hundred confinements."

**SMALL PATIENTS WITH SPERMATORRHOEA MARRY?**—Dr. Samuel W. Roberts, of Wakefield, N. H., in remarking upon the value of Dr. Howe's lectures on masturbation, writes:

"I would agree with the writer in everything except one: I believe it should be the exception, and not the rule, that such patients should marry, whether

male or female. And why? Because such patients, as a rule, if they marry at all, do it from the advice of some physician, and not from any affection they may have for any female, for they very generally have none. Now it is very rare that a female marries for the sole object of sexual intercourse; and if, when married, she finds her husband had no other, or that this was the leading object, and that he has no real affection for her, and especially if she finds out—as she most surely will—that she has a husband who is not like other men, it will pretty surely make trouble in the family, and, so far as the diseased party is concerned, make a bad matter worse. If, however, the bargain can be made so that both parties can understand beforehand just how things stand—perhaps don't stand—or otherwise, and then both parties are willing to have married life take its natural course, then it would undoubtedly be—if the patient, by previous treatment, is in a condition to marry—the best thing that could be done. But if this is not the case, then married life is but a continuance of masturbation, and works the ruin not only of one but of a whole family. But I alluded to this subject more to see if something could not be done to have this matter brought before the community in some form by the medical profession, so that some good might be done to arrest the tide of evil which every medical man knows now exists from the not only private abuse of the reproductive organs, but from the abuse in sexual intercourse, not illicit wholly, but in married life. For we believe that this is at the bottom of more disease, and is more destructive to the human, more especially Yankee race, than all other causes combined."

**PHILADELPHIA MEDICAL COMMENCEMENTS.**—JEFFERSON MEDICAL SCHOOL.—The Alumni Association of the Jefferson Medical College held its annual meeting on Monday, March 11th, in the college building. Dr. S. D. Gross was in the chair. The executive committee reported the deaths for the year as being those of Dr. J. M. Foltz, U. S. N.; Dr. Ralph M. Townsend, of Philadelphia; Prof. Nathan Smith, of Baltimore; Dr. R. V. Wilson, of Clearfield, N. J.; and Drs. J. Gordon Maxwell and H. L. Knight, of Philadelphia. Dr. Edward T. Casswell was elected orator for 1879. It was announced that fifty-three new members had been admitted during the year. At the election for officers Prof. S. D. Gross was re-elected president. In the evening the annual address before the alumni was delivered by Prof. D. S. Connor, of Cincinnati, his subject being "Medical Charities."

The fifty-third annual commencement of the college took place at noon of Tuesday, March 12, at the American Academy of Music. E. B. Gardette, M. D., President of the Board of Trustees, conferred the degree of Doctor of Medicine upon the 203 members of the graduating class.

Prof. John Biddle, Dean of the Faculty, awarded the following prizes: to Henry Morris, of Philadelphia, the H. C. Lea prize of \$100, for the best thesis; to Daniel E. Hughes, of Penn., the prize of \$50, for the best thesis on a physiological subject; the prize of \$50 for the best surgical essay was divided between D. D. Smith, of Penn., and Wickliffe K. Curtis, of West Va.; the prize of \$50 for the best essay on an obstetrical subject was given to Joseph R. Hamer, of Missouri; the prize of \$50 for the best essay on a chemical subject, to Clement Biddle, the son of the Dean. A gold medal was awarded by the Demonstrator of Surgery to H. M. McClanahan, of Illinois. A gold medal by R. J. Levis, M. D., for the best report of his clinic at the Pennsylvania Hospital,



was given to Walter E. Hall, of N. J. The valedictory address to the graduating class was spoken by Ellerslie Wallace, M.D., Professor of Obstetrics and Diseases of Women and Children. The total number of matriculates the past session was 598.

**UNIVERSITY OF PENNSYLVANIA MEDICAL SCHOOL.**—The introductory address to the Spring Course of Lectures was delivered in the Medical Hall on Monday, March 11, by Joseph G. Richardson, M.D., Professor of Hygiene. His subject was "Medical Scepticism and Medical Superstitions."

At the meeting of the Board of Trustees of the University of Pennsylvania on Tuesday, March 12, Professors Charles J. Essig and Edwin T. Darby, of the Pennsylvania School of Dentistry, were elected to fill chairs of Operative Dentistry and Dental Histology, and of Mechanical Dentistry and Metallurgy. The professors in the new school of dentistry thus created in the University will be the two above mentioned, and those of Anatomy, Physiology, Chemistry, Materia Medica, and Morbid Anatomy, in the Medical School. Prof. Tyson, of the Medical School, has resigned his chair of Physiology in the Pennsylvania Dental College. The donors of the guarantee fund of \$60,000, which was raised last fall to protect the Medical School against pecuniary loss during its first year under the new plan, and which has not been touched thus far (*about \$42,000 have been received in fees from students during the past five months; enough not only to pay all salaries and all the running expenses of the school, but also to fit up all the laboratories, and leave a small surplus over and above all expenses*), have turned it over to the proper authorities, to be used for the construction and equipment of a new laboratory building and dental department. The trustees seem to incline favorably towards the inauguration of a school of Veterinary Medicine in connection with the Medical School. The annual supper to the graduating class was given in the Medical Hall on Wednesday evening, March 13.

On Thursday morning the Annual Address before the Alumni was delivered by W. B. Norcom, M.D., of Edenton, S. C., at the Hall of the College of Physicians and Surgeons.

On Thursday evening the Alumni Supper was served at the Medical Hall.

The Commencement Exercises of the 113th term of the Medical School began at noon on Friday, March 15th, at the Academy of Music. Prayer was offered by Rt. Rev. Bishop Stevens. Charles J. Stillé, Provost of the University, delivered diplomas to a graduating class of 127. Prof. D. Hayes Agnew, LL.D., made an address commemorative of the Endowment of the John Rhea Barton Chair of Surgery and Clinical Surgery. The Degree of Doctor of Laws was conferred upon Hon. John Welsh, our present Minister to England. The Valedictory Address was delivered by Dr. William Goodell, Professor of Clinical Gynecology.

James W. Walk, of the class of 1878, presented a portrait of Emeritus Prof. Francis G. Smith to the Medical Department. The picture was received by Prof. Alfred Stillé.

The first prize of \$100 for the best essay upon a medical subject was awarded to John Marshall, of Pa. The second prize of \$100 was divided between J. A. Fonkrod, of Pa., and C. C. Seabrook, of Pa. The Gold Medal for the best Dissection was given to Onan B. Gross, of N. J. The second prize for Dissections, to Franklin B. Smith, of Md. The prize for the best record of anomalies, to J. R. Taylor, of Pa.

During the past year there have been 376 matricu-

lates at the Medical School. The first-year men were 136 in number.

**THE WOMAN'S MEDICAL COLLEGE** Philadelphia graduated 19 female doctors on Thursday, March 14th.

Within the past two weeks there have been 616 graduates of the Philadelphia colleges of pharmacy, medicine, and dentistry. The graduates were divided as follows: Philadelphia Dental College, 41; Pennsylvania Dental College, 78; Hahnemann Medical College, 53; University of Pennsylvania (Medical Department), 127; Jefferson Medical College, 203; College of Pharmacy, 97; Woman's Medical College, 17.

**INFANT MORTALITY.**—The *Lancet* for February 23 takes notice of a startling statement recently made by Dr. O'Hanlon, at an inquest on the bodies of two children at Durham, England, which is susceptible of a very sinister interpretation. The witness stated that there had been a great advance in the percentage of mortality among children, owing, he intimated, to the fact that the children were always insured, the surgeon having generally to give three or four certificates to insurance companies for every child's death. "The waste of infant life," adds the *Lancet*, "in some of the midland counties has before now been observed, and appears greater than can be accounted for by disease, bad management, and errors of diet," and deems it highly desirable that where there is even the faintest doubt as to the cause of death, the medical attendant should decline to give a certificate without first resorting to a post mortem examination.

**NECROLOGY.**—The French *Académie des Sciences* has recently lost two of its most distinguished members, Drs. Brequerel, Sr., and Regnault. The first, after a long life of labor and scientific activity, succumbed in his ninetieth year. The second was the father of the artist, Henri Regnault, whose glorious death at Buzenval during the late war was mourned by all lovers of France and the fine arts. The father died on the anniversary of the day on which the son met his untimely end. The last meeting of the *Académie* was adjourned as a mark of sorrow and esteem for the departed members. During the year 1877, the medical profession had to mourn the loss of the following celebrated men: Adams, Barth, Böck, Cazenave, Dietz, Erlennmayer, Fergusson, Fleischer, Gairdner, Gerlach, Girschoft, Harvey, Heine, Hoffmann, Kergaradre, Landerer, Max Langenbeck, Lederle, Linhart, Londlob, Marx, Mayerhofer, Oesterben, Schuhmacher, Schultze, Skobell, Spazenegger, Valentiner, Volkman, Wunderlich, Zeller.

**HOSPITAL FOR YOUNG EPILEPTICS.**—M. Lapryière, formerly editor of the *France Médicale*, has founded at Boulogne-sur-Seine a private hospital especially destined for the reception of young epileptics, but in which rachitic and paralytic children are also received. The hospital has been established less than six months, but its success seems already assured. In the cases of several epileptic children, the results obtained have been very satisfactory.

**THE GENERAL HOSPITAL IN VIENNA.**—A new bath-room, which contains seven continuous water-beds or baths, has recently been added to this hospital. The continuous water-bath has proved exceedingly valuable in the treatment of certain diseases of the skin, and still more of desperate surgical cases, such as severe burns, and phagedenic ulcers, etc. The patients find themselves very comfortable in the bath, which usually relieves pain rapidly even when severe. The baths are so arranged that the patients can sleep com-

fortably, and move about in them without difficulty—a very essential point when the sufferers are obliged to remain constantly in them for months at a time. The additional facilities afforded by the new bathroom for the administration of these baths, are a valuable addition to the therapeutic resources of the hospital, and deserve the careful consideration of all hospital authorities and practical surgeons.

**SANITARY PROTECTION ASSOCIATION.**—A sanitary protection association has been started in Edinburgh. It has for its objects the following: "1. To provide its members at moderate cost with such advice and supervision as shall insure the proper sanitary condition of their own dwellings. 2. To enable members to procure practical advice on moderate terms as to the best means of remedying defects in houses of the poorer classes, in which they are interested. 3. To aid in improving the sanitary condition of the city by following such course as in the opinion of the council may seem calculated to promote this object."

**MEDICAL AFFAIRS IN MONTENEGRO.**—Dr. Studitzki, in a letter to the *St. Petersburg med. Wochenschr.*, makes some astounding statements concerning the state of medical affairs in Montenegro. According to him, all the educated surgeons in the Montenegrin army are foreigners, the greater number of them being Russians. There are absolutely no native, educated physicians, the entire medical practice of the country being in the hands of the Jitschkowitsch family, whose scanty knowledge of the healing art has been handed down from father to son for generations. At the present time ten members of this family are engaged in the practice of military surgery, and they follow in every respect the methods and rules of treatment prescribed by their forefathers. These consist principally in the use of splints for fractures, in frequent cauterizations of fresh wounds with lapis, and in drainage of gunshot wounds with "cotton wick." They are very weak in anatomy, and for fear of hemorrhage avoid all extensive and delicate operations. The only operations which they perform are extirpation of hypertrophied cervical glands, extraction of foreign bodies and trepanation. This last operation is very frequently performed, because every trifling injury to the head is regarded as an indication for trepanning. Sometimes four or five trepanations are performed on the same individual. The court-physician of Nicolas is a Frenchman, but his services are never employed by the people.

**AIR AS A CAUSE OF DISEASE.**—Two addresses of allied import, one by Prof. Donaldson, of the University of Maryland, on "House Air as the Cause and Promoter of Disease," and the other by Dr. W. H. Byford, of Indiana, on "The Hygienic Conditions of the Present Condition of Society," are curious illustrations of a habit that should not be much indulged in medical literature—that of talking when one has very little to say. Prof. Donaldson, whose paper is reprinted from the report for 1877 of the Maryland State Board of Health, gives, however, one of those lucid and excellent *résumés* of the subject which are almost as valuable as original work, and concludes with suggestions of a practical bearing as respects the ventilation and sanitary inspection of houses. He says truly that neither diphtheria, scarlet fever, nor any other zymotic disease could make headway, if householders would only let plenty of fresh air and sunlight into their houses, and attend to their sewerage. He forgets, however, to tell where in crowded cities plenty of fresh air is to be found, particularly in

a condition of the streets such as is not uncommon in the leading centres of population in this country. Of course, efficient drainage, street cleaning, and sewerage systems may reduce the external impurity to a minimum; but there are many things in a large city, and one of them is the apathy of the public, that prevent efficiency in these respects, and render it difficult for a board of health to enforce even the most essential precautions. So that, after all, the question finally becomes one of legislation—of medical jurisprudence.

Dr. Byford's pamphlet is scarcely as moderate in its terms as Prof. Donaldson's, and consists, for the most part, of a very sweeping criticism upon our habits of living. It seems scarcely possible that the former can be in earnest when he says that "the busy men—the men who perform the intellectual work that contributes to and makes the present state of civilization what it is—the authors, editors, divines, doctors, lawyers, inventors, manufacturers, traders, and other business men, are so stimulated by the ambitious spirit of the times, that they are worn out while yet young, and die the victims of apoplexy, paralysis, softening of the brain, or some other of the manifestations of an over-worked brain." This is certainly an explicit statement, and yet, when the statistics of longevity are studied, it will be found that the classes named by Dr. Byford are the long-lived classes of modern society rather than the short. Dr. Byford's criticism on the use of stimulants, narcotics, and sedatives, is, however, one that can be commended to the attention of readers, although even here he overstates the matter a little.

**PREVENTING CREMATION.**—A bill has been introduced in the Pennsylvania legislature for the prevention of cremation. At the same time another bill was offered making it a penal offence for one man to ask another to take a drink of any intoxicating liquor. Both propositions seem to be on a par as to absurdity.

**DR. W. A. HAMMOND.**—The bill to reinstate Dr. Hammond as Surgeon-General and place him upon the retired list has passed the Senate and the House of Representatives. It now merely awaits the approval of the President.

**THE LATE DR. E. R. PEASLEE.**—The Board of Governors of the Woman's Hospital in the State of New York, at their meeting held 12th inst., unanimously adopted the following minute for record and transmission to the family of Dr. Peaslee:

"Edmund Randolph Peaslee was a man of rare acquirements, of untiring industry, of great clearness of perception, and of singular purity of life. As a medical writer and practitioner none stood higher, and few were his equal in the various departments of medicine and surgery which bound him to the Woman's Hospital.

"In the midst of his busy professional life, Dr. Peaslee found time to interest himself in literature, the advance of science, and the moral and religious efforts of the age. A character thus broadened and filled out made its possessor a leader among his professional associates, and a wise and valued citizen.

"This institution has lost in his death an eminent and conscientious officer, a kind friend and adviser."

**DIPHTHERIA AND LACTIC ACID SPRAY.**—Dr. H. Beyer, of Long Island City, L. I., reports two successful cases of severe diphtheria cured by the local application of dilute lactic acid in the form of a spray. He recommends its adoption in all desperate cases.



## Original Communications.

## IS THERE AN "AMERICAN METHOD" OF TREATING FRACTURES OF THE THIGH?

By W. H. VAN BUREN, M.D.,

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THE above question is suggested by the selection of this term by one of our hospital surgeons—himself a high authority on the subject of fractures—for the "improved extension apparatus" exhibited by the late Dr. Gurdon Buck at the *Exposition Universelle* of Paris in 1867. This method of treatment was described by its projector, at that time, in the pages of the *RECORD* (March 15, 1867, p. 49), and has since been familiarly known to surgeons as "Buck's Extension." As several important improvements in the treatment of thigh fractures originally brought into effective use in America are not included in this apparatus, the propriety of adopting the proposed suggestion seems to me open to question. It seems very desirable, also, that what are clearly American improvements should be recognized and specified as such, if this be possible, before they are absorbed and appropriated beyond recall. As a contribution to this object, I offer the following facts and considerations.

Whilst seeking evidence as to the value of Lister's antiseptic dressing in the wards of Guy's Hospital, London, in the summer of 1876, Mr. Howse incidentally called my attention to some thigh cases under successful treatment by what he styled the "American method," and of which he spoke favorably. I found, on examination, that the apparatus was Prof. Hodgkin's modification of the late Nathan R. Smith's anterior splint, slung from a pulley at the end of a pole which projected five or six feet from the foot of the bed at an angle of nearly 45°. The limb, below the fracture, was fixed to the foot-piece of the splint by means of lateral strips of adhesive plaster, and the extension, which (as a consequence of the position and remoteness of the point of suspension) was effected entirely by the weight of the limb, acted in the direction of the broken bone, whilst the weight of the patient's body was all-sufficient for counter-extension. There was no pulley or weight employed. This apparatus is pictured and highly praised by Mr. Bryant, at p. 403, vol. ii., of his "Manual of the Practice of Surgery," London, 1876, where he refers to a large number of excellent results obtained by it.

Subsequently, in a hospital in Holland, cases of fracture of the thigh were pointed out to me as under treatment by the "American method," and the title here was justified by the use of adhesive plaster in adapting the extending force (weight and pulley) to the limb.

In a paper by Le Gros and Th. Anger, "*Des tractions continues et de leur application en chirurgie*" (*Archives générales*, Jan., 1865), a case is related of a boy with an oblique simple fracture of the thigh, treated in Nélaton's service at the *Hôpital des Cliniques*, in April, 1866, by what the authors designate as the "*appareil Américain*." It is described as consisting of "a long splint, provided at its lower extremity with a screw, so arranged as to effect traction upon the lower portion of the broken limb by means of strips of adhesive plaster applied upon its surface."

"The only modification of this apparatus made by us," say the authors of the article, "was to introduce some tubes of caoutchouc into the extending cord between the loops of plaster and the screw." The object of this article is to set forth the value of India-rubber, in surgical extension, as a source and equalizer of power, and its especial quality of rapidly tiring out muscular contractility. The late Dr. Suckley (U. S. Vols.), after serving at the New York Hospital as house-surgeon, made a visit to Paris in 1855, and took with him a specimen of the thigh apparatus in use at that time in the hospital, which he presented to Nélaton. It is this, no doubt, which is styled the "American apparatus" in the above quotation. But it is to be noted that "elastic rubber webbing" formed a feature in the "Buck's Improved Extension Apparatus" exhibited in Paris in 1867 (*v. RECORD ut supra*), and the above paper was not published until 1868. I have Buck's own authority for the fact that he borrowed the idea of elastic extension from Dr. H. G. Davis, of this city, who was using it in connection with weight and pulley extension in the treatment of joint diseases.

The important improvement of adapting the elastic tension of India-rubber as a source of power for surgical purposes, claimed by the French surgeons whose paper I have quoted, seems, in fact, to have originated with Davis, who states that "his principle" of "continuous elastic extension" was inaugurated in 1856. (*American Medical Monthly*, N. Y., May, 1856, p. 330.) Barwell, writing in October, 1861, says that the idea of using it for "artificial muscles" had occurred to him "about a year ago." (*Med. Chir. Trans.*, vol. xlv., p. 25.)

Dr. W. Stokes (in the *Dublin Medical Journal*, May 9, 1870) has a case in which the thigh, already twice fractured, was treated on this third occasion by the "American permanent extension splint." The New York Hospital apparatus of 1855 had been introduced in Dublin, in that year, by Dr. C. R. Agnew, who had recently completed his service as hospital surgeon.

Finally, Prof. Spence, of Edinburgh, reproduces a wood-cut from Erichsen of Buck's apparatus (as pictured in the pamphlet "taken from THE MEDICAL RECORD") in the last edition of his "*Lectures on Surgery*" (Edinburgh, 1875, vol. i., p. 345), but does not mention Buck's name, nor indicate in any way its American origin, confining himself to establishing its identity in principle with a "weight with circle and strap for hanging from the ankle," and a fracture-bed with a "horse-girth perineal band," which he also pictures, from Hildanus. Having in this manner disposed of the question of originality, Prof. Spence goes on to describe all the details of Buck's apparatus, with short splints, adhesive plaster strips, and weight and pulley extension, adding also the later device of lifting the foot of the bed, so as to do away with the perineal band for counter-extension—as he, Prof. Spence, says he has employed them. His only allusion to America is contained in the following quotation (from p. 346): "I prefer deep sand-bags, to prevent rolling of the limb outward in fractures of the thigh, to a long lateral splint, as used in America." He elsewhere speaks of this as "the simplest, least irksome, and most perfect method I know of treating fractures of the thigh" (p. 345), and uses the same or even higher terms of commendation in his address before the British Medical Association, at Manchester, in August, 1875 (*Med. Times and Gaz.*, August, 1875, p. 205), without, however, recognizing that the value of the improvements which give this method its superiority had been ori-

ginally demonstrated in the New York Hospital ten years before.

Even from this scanty show of facts, it seems fair to draw two inferences: first, that devices regarded (by most of those who employ them), as American in origin, and by all as improvements, have secured a foothold abroad; and, second, that the designation of "American method," or "apparatus," is already applied abroad to several distinct modes of treating fractures of the thigh—modes as different, in fact, as Holgen's modification of Nathan R. Smith's anterior splint and the old long splint with screw extension in use at the New York Hospital in 1855. The term, therefore, is applied to certain recognized improvements which have come from our country, and not to any special method or apparatus.

These improvements are:

1. The use of adhesive plaster to connect the extending power with the limb. This is the most important of all these devices, as it does away with the great pain and the danger of eschar and ulceration which attended all the contrivances previously employed for this purpose. Buck first employed it in the New York Hospital, about 1852, and demonstrated on a large field of practice its entire efficiency. He ascribed the merit of originating it to Dr. Josiah Crosby, of Manchester, Vermont. But Dr. Crosby was probably anticipated, without his knowledge, by Dr. Wallace, of Philadelphia (i. e. review of *Sargent's Bandaging and Minor Surgery* in the *New Hampshire Jour. of Med.*, August, 1850, vol. i., p. 27), and there is also "a tradition of its use in this way by more than one generation of 'country doctors' in a remote corner of Pennsylvania" (i. e. Sargent's work, *ut supra*, Philadelphia, 1862, pp. 177-8), and Benjamin Gooch employed it in the last century to retain the foot and leg in position after rupture of the tendo Achillis, and in fracture of the patella. (*Chirurgical Works*, London, 1792, vol. iii., p. 130.) Buck certainly took a large part in popularizing the use of the adhesive plaster in treating thigh fracture, and it constituted the principal claim to superiority of the New York Hospital apparatus which was introduced abroad in 1855.

2. Next in importance is the device of elevating the foot of the bed, in order to secure the benefit of the weight of the patient's body as a counter-extending force. After a long period of trial, this measure has secured the confidence of practical surgeons, and the inestimable advantage of being able to give up that instrument of torture, the perineal band, is only now beginning to be universally recognized. Buck's original method did not include this device, but in a copy of his pamphlet of 1867 which he sent me in 1875, whilst considering the propriety of exhibiting a model of his apparatus at the Centennial Exhibition, in answer to my question as to what he considered essential features of his method, the following note is appended in his handwriting: "The counter-extending band has gone into disuse. Experience has shown that the weight of the body, aided by elevation of the foot of the bed, affords sufficient resistance to the extension in almost all cases. G. B." It was only after many years of patient trial that this conclusion was reached, for the original suggestion seems to have been derived from Dr. Van Ingen, of Schenectady, N. Y. (i. e. *Trans. Am. Med. Association*, vol. x., p. 436, New York, 1857—in an appendix to a *Report on deformities after fractures*, by F. H. Hamilton, M.D.). The foot of the bed is represented here in a woodcut as elevated from twelve to twenty inches, the patient's foot being attached firmly to its foot-board. Erichsen, who praises the "American method"

—applying this title to Buck's apparatus—in a clinical lecture in 1868 (*London Lancet*, May 9th), makes no mention of this device, nor yet of the use of the elastic element in extension. In his last edition (1878) Buck's picture is reproduced with the perineal band still in place. This picture is also copied by Spence. I will mention here that I learned from Dr. Buck, shortly before his death, that an army surgeon, who had employed this device with success, in connection with his (Buck's) extension apparatus, in the Lincoln Hospital, during the war, had since visited Edinburgh, and introduced the improvement there. He was unable to recall the surgeon's name.

3. The introduction of the elastic element in connection with the extending force ranks next in importance amongst the improvements in the treatment of thigh fractures which have originated in our country, and I doubt whether we even yet properly estimate the advantages which India-rubber offers in this direction to the surgeon. The gentle, but unyielding force exerted by this curious substance when put upon the stretch or when subjected to compression, has no rival as an antagonist to muscular contractility; it follows up without the slightest remission the successively contracting and relaxing fasciculi which make up the masses of muscular tissue in such a manner as to exhaust their contractile capacity, and tire out the muscle in less time and with less exertion of force than any other form of power. This quality, it may be remembered, was claimed for the weight and pulley, when this form of power replaced the screw. One of Nélaton's cases witnessed by an American student may be mentioned in illustration. Whilst lecturing one day at his Clinique, a new case of luxation at the shoulder was brought in. Nélaton seated the man so that his trunk was supported, called for a few feet of India-rubber tubing, which he doubled and attached by one end to the abducted humerus just above the elbow, stretching it slightly, passed the other end over a hook in the wall. He then resumed his lecture. In less than ten minutes the man exclaimed that his shoulder had gone into place. Bryant relates that in a neglected dislocation of the shoulder of twenty-five days' standing, Mr. Cook, of Guy's Hospital, placed a vulcanized India-rubber air-pad in the axilla, and bandaged the arm firmly to the chest. On the third day the head of the bone was found to have returned to its natural position. It is capable of demonstration that a much smaller weight is efficient in thigh extension by weight and pulley when transmitted through an elastic medium. India-rubber is employed in connection with several forms of thigh splint in the London hospitals as an "accumulator" of the extending force. Mr. Erichsen mentions in his last edition an "elastic catch," recently devised by one of his house-surgeons. A force so gently continuous, and yet so powerful, cannot fail to meet many wants of the surgeon; and, as far as I can learn, it was first used in our country.

4. The weight and pulley is a form of power which has been long used in surgery. It claims notice here in consequence of its revival in this country in a new and more efficient combination, which has been demonstrated to possess merit enough to displace the screw. It has been employed in the treatment of fractures of the thigh, in this country, by Dugas, and, as early as 1819, by Daniell; and in Europe, as Maligne tells us, by Scutin, Guy de Chanliac, and Fabricius Hildanus in the sixteenth century. Like the short splints, with which Buck has proved that good results can be procured with diminished pain and constraint to the patient, the weight and pulley con-



stitute a part of his apparatus—the form of power which his large experience led him to prefer.

5. The “anterior splint” is justly entitled to the designation of an “American method.” I see it stated recently (in the *North Carolina Med. Journ.*, Jan., 1878, p. 45) that in our “Southern States, the home of the invention, the weight and pulley extension is less employed than the suspensory anterior splint of Prof. Nathan R. Smith.” In the language of Prof. Hodgen, of St. Louis, who is the best known exponent of its merits, “to Nathan R. Smith, of Baltimore, is due, I believe, the credit of indicating the best principle for the management of fractures of the thigh—by suspending the limb, semi-flexed, from some remote point, and allowing the weight of the limb, with the obliquity of the suspending cord, to accomplish the required extension” (*St. Louis Med. Journ.*, vol. viii., N. S., May 10, 1871); and it does effect the necessary degree of extension, without any pulley and weight, or any additional force beside the weight of the limb, the weight of the patient’s body affording all sufficient counter-extension without any perineal band whatever, or any tilting of the foot of the bed. Prof. Hodgen, who has improved the apparatus in many important details, demonstrated these facts during the late war, and they are confirmed by the success of his improved splint at Guy’s Hospital, London, at the Marine Hospital, Greenwich, England (*v. Guy’s Gazette*, December 11, 1875, and Bryant, *ut supra*), and by Dr. Hewson, of the Pennsylvania Hospital, who is said to give it the preference (*Medical News and Library*, Phil., Feb., 1877, p. 26).

Prof. Hodgen expresses his surprise that this method has not been more generally adopted by surgeons. Is it because its merits are not generally understood? In the woodcut in Erichsen’s last edition the point of suspension is figured immediately above the patient’s knee, *i. e.* in a vertical direction; whereas, to secure the power of extension which the apparatus possesses, it should be located in an oblique direction, *i. e.*, at a “remote point”—over the patient’s ankle, or at the end of a pole as at Guy’s—although a study of the parallelogram of forces will show the latter to be too remote to be advantageous.

If we apply the term “American” to Buck’s “improved extension,” what designation will remain for the Smith-Hodgen method?—or for the outcome of these several American improvements, *viz.*, the great gain of being able to command a good result in thigh fractures *without a perineal band*, which (with the adequate and painless extension afforded by either Buck’s or the Smith-Hodgen apparatus) will be recognized by the practical surgeon, hereafter, as the most important of them all?

I am forced to the conclusion that we should continue to use for Buck’s “improved extension apparatus” the designation which he originally gave it—with his name prefixed in grateful recognition of a lifetime of patient, practical investigation, through which we are the gainers; and, also, as a means of distinguishing it from the eminently American method of Smith and Hodgen, in which, besides other advantages, extension and counter-extension are secured by a most ingenious and, as far as I know, a most original device.

NEW YORK MEDICAL REGISTER.—Dr. W. T. White has been elected, by the New York Medico-Historical Society, editor of the *New York Medical Register*, vice Dr. A. E. M. Purdy, resigned.

## CLINICAL OBSERVATIONS ON THE EARLY STAGES OF SCARLET FEVER, WITH SUGGESTIONS AS TO PATHOLOGY.

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(Read before the New York Academy of Medicine, March 7, 1878.)

### PART II.

THE phenomena of the stage of invasion, then, are: primarily, angina, which is specific and probably peculiarly irritating in character; secondarily in order of time, and possibly also in that of causation, varying degrees of nerve-disturbance and fever.

The duration of this stage, as is well known, varies greatly. Such observations as I have made upon this point would tend to fix its average at about eighteen hours.

### THE STAGE OF ERUPTION.

The disease, which has hitherto been simple in the sense of presenting but one manifest lesion, the angina, now becomes complicated by the addition of a second—the well-known eruption—a hyperemia with exudation; in other words, an inflammation of a mild type of the more superficial cutaneous structures.\* With its appearance occur characteristic changes in the mucous membrane of the tongue, and perhaps of other mucous surfaces.

The view which has been frequently advanced, that the angina and the rash are simply parts of a contemporaneous or continuous eruptive process of all the cutaneous and mucous surfaces, is perhaps not fully supported by facts. They are in typical cases neither contemporaneous nor continuous, but, as has been seen, are separated by a distinct and not inconsiderable interval. Prof. Thomas, in the article from which I have already quoted, says: “There is found in scarlatina no constant or characteristic condition of the mucous membrane of the organs of digestion, as was found to be true also of that of the air-passages. The mucous membrane of the stomach and intestines, in cases which have been most carefully and microscopically examined, has been found perfectly normal, or only affected with some incidental lesion. A permanent hyperemia of the mucous membrane does not denote, as was formerly erroneously thought, an exanthem of the mucous membrane, but denotes in severe cases, as in other acute exanthemata, the presence of a catarrh.”

That the eruption may be a sequel in order of causation, as it is a sequence in order of time, of the angina, cannot, I think, be pronounced impossible. When we see urticaria produced in some persons by the irritation caused by eating a single strawberry, erythema a not infrequent attendant on various inflammatory affections, and eczema and other eruptions often produced or aggravated in children by the irritation of each advancing tooth, can we deny that a specific and peculiar nerve-irritation may have the constant effect of producing a specific eruption? But when we further consider that this specific angina may, as has already been suggested, have its specific morbid and morbid products, which may be absorbed into and distributed by the blood, we have an-

\* That the eruption does not depend upon the agency of the sweat-glands or perspiratory ducts, as was suggested in the discussion by Dr. Andrew H. Smith, seems conclusively shown by a case, reported in Ziemsen’s *Cyclopaedia*, of its occurrence over a large cicatricial surface where the skin had been entirely destroyed by a burn.

other mode of causation by which it and the eruption may be connected.

While the remarkable irregularities in time and manner of the appearance of the eruption are suggestive of the former of these modes of origin, its probable agency in the contagion of the disease and its inoculability as strongly favor the latter.

There is in some cases at this stage the pulse of arterial tension, which condition may, as was pointed out by Dr. Broadbent, be due either to a toxicemic or a neurotic cause.

Whatever may be its etiology, the eruption becomes a new and not unimportant source of nerve-irritation and febrile excitement. No wonder that these phenomena, if marked before, now become greatly intensified, and that in many cases they now for the first time assume prominence.

In estimating the disturbing effect of the eruption upon the general economy, its interference with the normal functions of the skin must also, of course, be remembered.

#### MALIGNANT SCARLATINA.

But it may be objected that this theory of primary peripheral nerve-irritation fails to furnish an adequate explanation of that intense fever and those appalling nerve-disturbances that early characterize malignant cases, for the reason that the angina is not always seen in such cases to be severe. Indeed, statements of its occasional supposed absence in such instances are not wanting, and may be adduced in opposition to the foregoing argument.

To these I reply: First, that the throat-affection has not always been very carefully studied in this disease, even by some who are otherwise excellent observers. I have in several instances been told by physicians who were intelligent and had seen not a little of scarlatina, that the angina in a given case was slight, but, on going with them to it, have been able to convince them by ocular demonstration, on a second observation, of their error. In malignant cases the urgent general symptoms often divert attention from the throat. I know by experience how easily a physician who is called at night to a child in convulsions or delirium or coma, and who inspects the throat of his struggling patient hastily and by an imperfect light, may be led into error by failing to see all that is actually there.

Having been personally searching with especial attention for several years, and in a large number of cases of all grades of severity, for one in which angina was absent, but in vain, I will be greatly obliged to any one who will show me such an instance.

Second, while it is true that the appearances of throat-inflammation are in some malignant cases at first comparatively slight, it is yet probable that the primary local irritation is in all such instances peculiarly intense. That this is not always objectively evident, may be explained by the fact that the perturbation of nerve-functions may actually retard the natural local reactions to that primary irritation. Pain, redness, and swelling may therefore be developed more tardily and imperfectly than in a milder case where this irritation is really less intense. But while this partial retardation may continue for a day or two, the reaction does come if the patient lives longer. Meigs and Pepper say: "We have found that, in all severe or grave cases in which the patient did not die with violent nervous symptoms under the first shock of the scarlatinous poison, there has been developed a severe and dangerous anginose inflammation about the third or fourth day." As the general truth of

this statement is not likely to be disputed, the question that remains is—must this "first shock of scarlatinous poison" be regarded as necessarily toxicemic and central, or may it not be peripheric, and due to the intense local irritation which was really the first stage of this "severe and dangerous anginose inflammation"? The barriers of the resistance of the nervous system being once broken down by this peculiar irritation in especially susceptible organizations, the various morbid processes that constitute or result from fever follow with unchecked rapidity.

Again,\* if the primary cause of disease in malignant cases is a poison—organic or chemical—received into the blood in the lungs, how can it be explained that so many who constantly inhale the same poison escape constitutional infection? And how can it be explained that the disease is not about equally fatal in all who have been equally and continuously exposed to the same contagion?

Further, the fact of the usual non-recurrence of the disease in those who have had it seems to find a more rational explanation, either in the hypothesis of a special tissue-change, or in that of a change in nervous susceptibility to a given disturbing impression, than in that of a permanent alteration in the constituents of that perpetually renewed fluid, the blood. Can we suppose that a special permanent blood-change is produced by each of the non-recurring diseases?

Now, it has been shown in this paper that continuous exposure to the contagion of severe scarlatina has probably the nearly constant effect of producing a characteristic faucial redness, but that fifty per cent. of eighty-six unprotected children continuously exposed escaped the disease, though most of them showed this faucial redness. Are not these two facts, taken in connection with the third one, that angina is the earliest and the most important symptom of the disease, very suggestive of the conclusion that this angina may be primary;† and that, whether primary or secondary, it is yet the real commencement and the chief efficient cause of the subsequent and accompanying constitutional malady?

The fact that the disease proceeds no farther than this initial stage in so many instances, and the various other irregularities that are so eminently characteristic of it, find their most rational explanation in that apparent capriciousness in nervous reactions with which we are familiar in numerous practical illustrations.

If urethral fever may be regarded as belonging to the class of reflex disorders, as was suggested by Dr. Horatio C. Wood in his interesting monograph, "A Study of the Nature and Mechanism of Fever," and further by Dr. Thomas R. Brown, in the article "On Urethral Fever," in the *New York Medical Journal*, February, 1878, an additional analogical argument is

\* These considerations were in part urged by Dr. B. W. Richardson against the germ-theory of disease (vide *Medical Press and Circular*, October 10, 1877, p. 234), but seem to me to have even greater force against any hypothesis based on a primary general blood-change from an inhaled specific chemical poison, as the laws of chemical action are known to be uniform.

† With regard to a question referred to elsewhere in this paper, and also in its discussion as having an obvious bearing upon this point, Dr. Lefferts informs me that erythematous pharyngitis occurs in most—probably in all—cases of secondary syphilis concomitantly with the cutaneous eruptions; but that data are wanting for a definite answer to the question whether it is, as a rule, the earliest of the secondary manifestations. The corresponding facts as to small-pox communicated by inoculation are, so far as I have been able to learn, equally unattainable; but in that disease, when taken in the ordinary way, there is, in some cases at least, an angina which precedes the eruption by two days. In measles, irritation and congestion of the pituitary, pharyngeal, and bronchial mucous membrane precede the eruption by three days. That there is a close analogy in the nodes of inception of the three acute exanthemata can hardly be doubted.



furnished, in connection with facts which have now been presented, in favor of the possibility of this being the essential nature of the early constitutional disturbances in scarlatina.

I have thus endeavored to sketch the salient points in the clinical history of scarlatina from its inception, through the stage of invasion to the beginning of that of eruption, with some suggestions as to possible relations of cause and effect that seemed to me neither far-fetched nor violently improbable. I shall follow it in detail no farther. The disease now becomes rapidly in severe cases more and more complex. There now occur in such cases other well-known organic lesions. There is now unquestionably important blood-change; but this is not, so far as has ever been positively demonstrated, specific, but such as is perhaps common to some other febrile diseases. It is probably not the primal cause of the disease, but its effect.

That this blood-change occurs in malignant cases with an earliness corresponding to the rapidity of other processes, and may contribute not a little to their severity, cannot be doubted; but this by no means proves that, even in such cases, it is initial or primarily causative.

#### FEVER-HEAT.

An appreciable phenomenon in all cases of scarlatina, and one of supreme importance in many, is *fever*. Any exhaustive discussion as to how far this may be, on the one hand, merely "irritative" or "symptomatic," or, on the other, "haemic," would be far beyond the scope of this paper. It may be primarily the former, but later, in the course of changes such as have just been pointed out, partake of both characters.

I have, however, taken the temperatures daily in many cases, with observations upon the relations of those temperatures to the inception, extension, intensification, or the opposite, of local inflammations.

The result of these observations has been to show a general correspondence between the two.

It may in the first place be remarked that the typical thermometrical curve in a normal case of scarlatina may generally be observed to represent the rise and the decline of the faucial and the cutaneous inflammations.

When, however, the line of thermometrical elevation is irregular, its sudden rise may usually be observed, at least in cases of moderate severity, to denote intensification of the angina, its extension into the nasal or Eustachian passages, the involvement of lymphatic glands, or the occurrence of other local inflammatory complications or sequelæ.

The following are examples of many that might be cited:

I.—John G——, age seven, Jan. 13th, second day. Temperatures on successive days:  $101^{\circ}$ ,  $102\frac{1}{2}^{\circ}$ ,  $103^{\circ}$ ,  $102\frac{1}{2}^{\circ}$ ,  $102\frac{1}{2}^{\circ}$ ,  $100\frac{1}{2}^{\circ}$ ,  $100\frac{1}{2}^{\circ}$ . Took cold, with aggravation of throat-affection:  $102\frac{1}{2}^{\circ}$ ,  $102^{\circ}$ ,  $101^{\circ}$ ,  $100^{\circ}$ ,  $100^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ,  $98\frac{1}{2}^{\circ}$ .

II.—Ida P——, age three, Jan. 18th, first day:  $99\frac{1}{2}^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ,  $101^{\circ}$ ,  $102\frac{1}{2}^{\circ}$ ,  $103^{\circ}$ ; follicular tonsillitis:  $104^{\circ}$ ,  $103^{\circ}$ ,  $102^{\circ}$ ,  $102^{\circ}$ ,  $102^{\circ}$ ,  $101\frac{1}{2}^{\circ}$ ; otitis and adenitis:  $103\frac{1}{2}^{\circ}$ ,  $103^{\circ}$ ,  $102\frac{1}{2}^{\circ}$ ,  $102^{\circ}$ ,  $102^{\circ}$ ,  $101\frac{1}{2}^{\circ}$ ,  $101^{\circ}$ ,  $100^{\circ}$ ,  $100^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ,  $98\frac{1}{2}^{\circ}$ .

III.—John McG——, age four, Jan. 7th, first day:  $100\frac{1}{2}^{\circ}$ , with slight sore throat. On fourth day, with follicular tonsillitis and pain in right ear,  $103\frac{1}{2}^{\circ}$ ; fifth,  $102\frac{1}{2}^{\circ}$ ; sixth, discharge from ear,  $100\frac{1}{2}^{\circ}$ ; seventh, pain in left ear,  $102\frac{1}{2}^{\circ}$ ; eighth and ninth, the same; on tenth, discharge from left ear,  $100\frac{1}{2}^{\circ}$ . The angina and double otitis persisted for twenty days more, with temperature ranging between  $99\frac{1}{2}^{\circ}$  and  $102^{\circ}$ , the upward variations

being repeatedly directly traceable to their aggravation from taking cold or neglect of treatment.

IV.—Nelly Q——, age six, Feb. 14th, second day:  $104\frac{1}{2}^{\circ}$ ; severe angina,  $105^{\circ}$ ,  $103^{\circ}$ ; stomatitis,  $104^{\circ}$ ,  $102\frac{1}{2}^{\circ}$ ,  $101^{\circ}$ ,  $101^{\circ}$ ,  $100^{\circ}$ ,  $100^{\circ}$ ; increased tonsillitis,  $100\frac{1}{2}^{\circ}$ ,  $100^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ; increased tonsillitis,  $101^{\circ}$ ,  $99\frac{1}{2}^{\circ}$ ,  $99^{\circ}$ ,  $98\frac{1}{2}^{\circ}$ .

Similar variations in temperature in connection with other complications might be illustrated, but it is unnecessary.

These observations, again, are corroborated by those of Dr. Bullard.

#### PROGNOSIS AND TREATMENT.

My remarks under this head must be exceedingly brief and general.

The dangers to be considered in the early stages of scarlatina are twofold, those resulting from the angina and those depending upon the fever and nerve-disturbance; for, intimately as these are connected, they may be, and often must be, estimated and combated separately. The prognosis is grave in proportion to the severity of either.

The importance of measures intended to mitigate the discomfort and disinfect the morbid secretions due to the former, has long been generally recognized. In addition to agreeable cool drinks, I generally prescribe small and frequent doses of chlorate of potash with a little glycerine in lime-water, which is a pleasant mixture. Under this treatment the early vomiting very rarely proves persistent or troublesome. When indicated, I combine with this mixture the bromide of potassium or the spirit of nitrous ether, or substitute for the lime-water in it the spirit of *Mindererus*.

In severe anginose cases, or those attended with diphtheritic complication, I employ the same treatment that I use in diphtheria.

The angina of scarlatina is probably never cut short by treatment, but in a certain proportion of cases it may be somewhat mitigated, glandular implication and septic absorption prevented and diphtheritic complication cured, and thus a fatal termination averted.

High fever-heat has in my experience been an invariable characteristic of malignant cases. The constant tendency of such cases to a speedily fatal issue, and the fact that some have been saved by the prompt employment of vigorous antipyretic measures, are well known, and the resulting indication generally recognized. Cool bathing, and quinine in *large* doses, are the remedies to be employed. Owing to the exceptional ignorance and prejudices of the families in which malignant cases have occurred, in my dispensary service, I have not ventured to employ any other form of bath than cool sponging, and in one instance a partial use of the wet pack. While these have been followed by no successful result, the uniformity with which a slight reduction of temperature by these means has been attended with a temporary subsidence of the most violent nerve-symptoms, has been striking.

Except with definite antipyretic indications and in antipyretic doses, quinine has not seemed to me to be useful in the earlier stages of scarlatina.

Inunctions I esteem less than I did formerly. The claim that they prevent itching and discomfort of the skin has not seemed to be well founded, these symptoms having been particularly troublesome in some cases in which they were employed. Tepid sponging is of unquestionable value.

The results in the 102 cases referred to have been as follows: Three passed under the care of other physicians, leaving 99 to be accounted for. Of these, 85 recovered and 14 died. The variableness of the rates

of mortality, and the consequent difficulty of estimating the results of treatment in scarlatina, are well known. A larger proportion than usual of these cases have been grave—fully one-third of those that recovered having been of severe anginous type, and not a few attended with nasal, diphtheritic, or other serious complications. Good nursing also, which is of especial importance in this disease, has been deplorably lacking in many instances. These results, therefore, though not at first view brilliant, have been in reality, all things considered, decidedly favorable.

A majority of these cases have been visited daily, and some oftener, temperatures taken and other observations made, and the treatment carefully attended to. While I am indebted to various other gentlemen for valuable assistance, I am under especial obligations to Drs. A. E. Prince and O. B. Douglas.

## Reports of Hospitals.

### HOSPITAL OF UNIVERSITY OF PENNSYLVANIA.

#### CLINICAL LECTURE ON CARUNCLE OF THE FEMALE URETHRA.

By WILLIAM GOODELL, M.D.,

PROFESSOR OF GYNECOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

(Reported for THE MEDICAL RECORD.)

THE most common and painful affection of the female urethra is caruncle. The patient that I bring before you to-day is thirty years of age and married. Young as she is you see how the disease has left its marks upon her, how emaciated, careworn, and cachectic-looking she is. From her appearance one would really suppose that she was suffering from some severe and wasting constitutional vice. Her history is very brief, but very sad. Three years ago, when in the midst of most excellent health, she found that her urine began to scald her when she made water. The passage of the last few drops gave her the most agonizing pain. This pain grew daily more severe and unbearable, until of late she holds her water as long as possible, and when at last she is obliged to pass it, she clutches any chair or article of furniture that stands in reach, so great is the agony. The pain about the meatus did not at first interfere with the approaches of her husband, but the time came when cohabitation was pure torture to her, and of late she has been obliged to give up all marital intercourse. Very naturally this abstinence has become a constant source of domestic unhappiness. Within the past year or so even walking has grown to be a painful exercise. You see she walks with a sort of stoop, at the same time holding her legs as far apart as she can. She has suffered a great deal lately from burning sensations in the external organs of generation. There is an abundant leucorrhœal flow. Her urine is streaked with blood, and her linen stained by the same fluid. She has become very much distressed and very melancholy from constant brooding upon her condition. Several physicians who have hitherto attended the patient have been misled by the symptoms presented into supposing her to be the victim of some chronic uterine affection. Let me warn you how easy it is to be led off the track in just such cases as this one, and how careful you ought to be to make a thorough examination of the urethra before

settling upon the presence of any other disease. The patient tells me that applications have been made to the cervix, and that vaginal suppositories and pessaries have been constantly employed, without giving her the least relief; and no wonder. As I myself have made this same blunder I will not be uncharitable.

I am going to examine the patient thoroughly before you. I separate the woman's thighs and bring to view the meatus urinarius. This little crimson, highly injected, wart-shaped body is what we know as a caruncle. Some call it vascular tumor, and some vascular excrescence of the urethra. We will not, however, disturb ourselves about names. Suffice it to say that this tiny, insignificant looking growth can, and does give rise to the most exquisite pain even when touched with a feather. The little nervelets which are distributed over its surface reach, in time, a most exaggerated condition of hyperesthesia. Even now when the patient is thoroughly under the influence of the ether you see how she winces when I seize the caruncle with this pair of toothed forceps and bring it fully into view. Now that you get a good view of it, you notice, no doubt, the resemblance it bears to an Antwerp raspberry. See how exceedingly vascular it is! I have been holding it and pulling it out of the urethra with the most gentle traction, and yet see how the blood oozes from its walls! I told you a minute ago that the woman winced when I touched the growth, though she was fully under the anæsthetic. I should say to you in explanation of this that a woman's external genitals are the last parts of her body to be affected by the ether. Sensation is so very acute in these parts that it will remain unblunted long after the nerves of the periphery have succumbed. You have a very good illustration of this fact when your hand or instrument comes in contact with the near approaches to the vagina in a case of vaginismus. The patient may be in the most complete stage of ether narcosis, and yet the minute you try to introduce your hand, or a speculum into the vagina she begins to struggle with you, and you are forced to stop your manipulations and give more ether.

This is a very severe case of caruncle. The growth has been left so long unremoved, and has been so much irritated that it has begun to affect seriously the patient's health. You will very rarely come across cases presenting so many symptoms as the present one. Usually the general health is not at all affected, and the woman will only complain of pain and *malaise* during the acts of coition and micturition. On the other hand, I have seen much worse cases than this one—cases in which the constant pain and restlessness and wear-and-tear of the system had brought on temporary insanity. I can give you a very good case in point. Some years ago I saw, in consultation, a young married lady, who had been utterly broken down in body and mind by her acute sufferings. She had dysmenorrhœa very badly, coitus had not been possible for months, her temper was becoming ruined, and she was fast falling into a state of confirmed hypochondriacism. Her lips were blanched, her eyes hollow and sunken, and her whole face unutterably melancholy and wasted. I never once dreamed that all these symptoms grew out of the simple presence of a urethral caruncle. I examined the poor girl's lungs, auscultated her heart and arteries, examined the cervix carefully by sound and speculum, and thought that I had reached the root of all the evil when I came upon a slightly anteфлекed womb and reduced it. I was getting frightfully perplexed and bewildered, when a glance into the opening of the urethra showed



me the true state of affairs. When I cut out the caruncle she was all right again as if by magic.

Caruncles are more common, I think, in married women than in virgins. They do not generally appear until after the prime of life. This case is an exception to that rule. Various causes have been assigned for their appearance. I am rather inclined to refer them to the congestion of the urethral plexus of veins by the pressure of a gravid or displaced womb. In some cases an over-distended bladder or rectum will bring about congestion. Thus a caruncle owes its growth to the same predisposing and exciting causes as does an hemorrhoid. I have heard of instances in which they had been produced by uncleanly habits, or a constant and irritating leucorrhœal discharge. Some authorities speak of gonorrhœa as an exciting cause.

Caruncles are hypertrophied urethral papillæ which are covered with the usual pavement epithelium, and become gradually over-supplied with blood and nervous attachments. Caruncles may be single or multiple, sessile or stalked, pink or scarlet, and are usually found at the mouth of the meatus, and at its lower verge. I have seen them, however, stud the whole rim of the opening, and occasionally have known them to extend up the canal for the distance of a half an inch or so. They vary in size from that of a pin's head up to that of a pigeon's egg; usually they are not larger than a good-sized raspberry. This one is very small, and yet see how much harm it has done! There is, therefore, no proportion between the amount of pain produced and the size of the tumor. The more vascular and vivid the caruncle, the more sensitive is it. This caruncle, as you can see for yourselves, has a broad base of attachment just within the verge of the meatus. Do not confound with a caruncle the pale, non-vascular, but highly sensitive neuromatous tumors of the urethra mentioned by some writers. These I have never met with, though I have, upon several occasions, removed from unmarried girls a worm-like tumor which dangled from the vestibule. These tumors were pale, but not at all sensitive.

There is a great deal of real difficulty connected with the diagnosis of caruncles of the urethra. Vaginitis, displacements of the uterus, diseases of the ovaries, all give rise to vesical disturbances; and if the symptoms are not quite so complete as they are in this case, you will be very likely to overlook the caruncle. Reflex uterine symptoms draw away your attention, while delicacy prevents you from making an ocular examination of the parts. It is a very great art to be able to examine the urethral opening of a woman without offending her proper and instinctive sense of decency. I once made a very bad blunder of this sort myself; but, as I have learned a great deal from experience since then, I feel myself to be in a position to advise you in this matter. A patient comes into your office, we will say, with some affection such as that which we are now considering, where it is exceedingly advisable that you should thoroughly examine the parts not only with fingers and instruments, but with your eyes. Do not ask the woman to lie down on your table or lounge, tell her that you want to see what is the matter, and then brusquely proceed to do so. Let me assure you that very few respectable women will submit to that sort of treatment, particularly at the hands of young doctors. Never suggest to a woman the necessity for an ocular inspection of her person, but do it without her consent.

Let us suppose that the case is one in which dysuria is a prominent symptom. You will very naturally

infer the existence of some uterine lesion, and will, of course, make an examination with the speculum, to which most women will submit. While exploring the uterus with the index-finger, you may, at the same time, with the thumb press upon the meatus, and notice whether the pressure gives pain. During the introduction of the speculum, you can always visually inspect the parts without the knowledge of the woman. Now, in my experience, whenever you can confidently say to the patient, "I have found out the cause of your distress; here it is;" and can at the same time, by pressure with your finger upon the caruncle, prove what you say, she will offer no resistance to any future needful exposure. Never, however, forget to go through with the formality of covering your patient with a sheet.

The prognosis of caruncle depends largely upon the nature of the tumor. The probability of cure is excellent when the caruncle is stalked. When it is sessile, or multiple, it is no easy task to get rid of it. For every sessile tumor you snip off, two fresh ones are likely to take its place. However, there are methods of restraining the growth of these tumors, as I will soon show you.

How are you to remove a caruncle? If it has a distinct stalk, one clip of the scissors does all the work. How are you to act when the caruncle is sessile? The case I have to-day is one in point. I place the woman in the lithotomy position, fronting a good light. She must be thoroughly under the influence of the anæsthetic. While the assistants support the knees and stretch open the meatus, I seize the growth and carefully remove it by repeated snips of the scissors. Be sure to include with the growth a portion of the healthy mucous membrane on each side. After cutting out the caruncle, I have hitherto been in the habit of quickly drying the raw surface, searing it with the frayed end of a match moistened with fuming nitric acid, and then with a little olive oil decomposing any excess of acid.

To-day I am going to scarify the wound with the *Cautère-Paquetin*. This instrument is very highly prized as a thermo-cautery abroad, and has of late been imported by our instrument-makers. This cautery usually stops all bleeding at once. Nitric acid is not nearly so reliable in its styptic action. Four years ago I had been called to operate upon a case, and had removed for the second time a sessile caruncle, when, upon my second visit, about twelve hours after the operation, I found that the woman had lost, and was still losing, a large amount of blood. I applied first ice, and then Monsel's salt to the raw surface, and put on a compress and a T-bandage. In spite of these precautions, at my next visit, six hours later, I found the hemorrhage still going on. I applied the lunar caustic, and then tried to nip the bleeding point with a *serre-fine*, but the part was too tender for further interference, and the patient would not take an anæsthetic. What was I to do? The prospect of spending an hour or two at the patient's bedside, with my finger pressing on the urethra through the vagina, was not altogether desirable. Suddenly the thought struck me, why not let a sponge do the work of my finger? So I straightway inserted a sponge half way into the opening of the vulva. Its elasticity, and that of the perineum on which it rested, made the needful pressure upon the bleeding surface. The Paquetin instrument does away with the possibility of such a complication. If you have not this instrument, use a red-hot knitting-needle.

The after-treatment of the patient will consist in the application, twice a week, of the undiluted commercial

carbolic acid until the wound has healed. Carbolic acid dressing will very often prevent the development of a crop of small growths around the stump of the parent stem. Occasionally you may have to repeat the cutting operation. In one obstinate case, which had resisted repeated operations, I gained a cure by first cutting off the growth, and then forcibly dilating the urethral canal with the expanded blades of a dressing forceps until it admitted my index-finger. By stretching the muscular coat of the urethra, I released the involved plexus of veins from its spasmolitic contraction, and thus relieved their congestion. In some very obstinate cases it may be necessary to excise the growth, and bring the sides of the raw surface together with stitches. In this way the site of the caruncle is covered with healthy tissues, and the chances of its return are greatly diminished.

Suppose the woman will not let you use the knife—what are you to do then? Whittle the end of a match to a point, and with it touch each growth twice a week with the crystals of carbolic acid made fluid by heat. This operation is painless, and will very effectually mummify the caruncle and blunt its sensitiveness. After the use of this local anæsthetic, you can very often nip off the growth without the patient's feeling it. An English gynecologist of distinction advises chronic instead of carbolic acid. Chronic acid must be applied with more care than the carbolic acid, and should afterwards be neutralized in its action by means of pledgets of lint dipped in a strong solution of carbonate of sodium.

## Progress of Medical Science.

**SPONTANEOUS GANGRENE IN THE COURSE OF TYPHOID FEVER.**—Twenty years ago, M. Bourgeois (d'Etampes) reported to the *Société médicale des hôpitaux* a case of spontaneous gangrene in the course of typhoid fever. M. Béhier, appointed to make a report on this communication, denied the causal relation between the fever and the gangrene. Since that time, however, a number of cases have occurred, proving M. Bourgeois correct. M. Lereboullet has collected seven or eight examples, to which he has added two new ones; one observed by M. Mercier, at the military hospital, Saint Martin; the other observed by himself in his own service, at Val-de-Grâce. The first was the case of a young soldier, twenty-one years of age, who entered the hospital May 29, 1877, presenting all the symptoms of typhoid fever, from which he had been suffering ten days. During the next few days the temperature had risen so high as to call for the cold bath. About the twenty-second day, attention was called to the heart, of which the patient complained, but neither murmur nor palpitation were found. The patient also complained of pains in the right leg, more severe during the night. The foot was examined, and a commencing gangrene discovered, which involved the entire foot, and extended a short distance up the leg. This presented all the characteristics of a dry gangrene, and had already existed two or three days. Pulsation had ceased in the arteries of the limb, the femoral was empty of blood, and there was evidence of the existence of clots in the vessels. In three days the gangrene involved the leg and thigh, the left foot was attacked in its turn, and the patient soon died.

At the autopsy, the lesions of typhoid fever were found; in addition, an old clot was found in the ab-

dominal aorta, opposite the articulation of the second and third lumbar vertebra, occluding the vessel and extending into the crural artery of the right side; the arteries of the leg were empty. The examination of the heart gave no evidence of myocarditis, but revealed a pretty extensive endocarditis, occupying the entire internal surface of the left ventricle. The left auricle was filled with old and large clots. In a word, in the abdominal aorta, in the iliac, and in the femoral, there were very large clots, which the author reported as embolic.

The second case, observed by M. Lereboullet himself, occurred in a young man, twenty-two years of age, who entered Val-de-Grâce August 21st, with typhoid fever, on the fifth or sixth day of the disease. The fever was of moderate intensity. The heart was not affected, with the exception of a slight feebleness of the first sound. The fourth day after his admission, the patient complained of pain on the superior and external surface of the right leg; there was at this point some puffiness. In a short time the whole foot was the seat of a gangrene, presenting all the characters of senile gangrene. The crural artery was empty of blood, and there was neither pulsation nor bruit. The pulsations on the left side were very feeble.

On the 19th of September the patient's condition was very grave, and he was transferred to the surgical service, where the leg was amputated. Only a few drops of blood escaped, although the arteries were all open, and no precautions were taken to prevent hemorrhage. The autopsy of the amputated limb showed that the arteries had entirely disappeared in the mortified parts. The patient recovered and the wound had cicatrized in fifteen days, but pulsation had not returned in the right femoral. It is probable that in this case a clot was formed in the external iliac, from which a secondary clot lodged in the anterior tibial, occluding that vessel. What was the origin of the formation of these clots, is a question which cannot be satisfactorily answered, since no autopsy was obtained. There probably was in this case an arteritis of some large arterial trunk. However, these two cases show undeniably the possibility of the coincidence of typhoid fever and dry gangrene. The explanation of this coincidence is yet to be given.—*Gazette des Hôpitaux*, Jan. 3, 1878.

**A NEW METHOD OF PRACTISING THE AURAL AIR DOUCHE.**—Dr. Gruber recommends the following modification of Politzer's method of introducing air into the tympanic cavity. By this plan, the sipping of water, often so objectionable, is dispensed with. The closure of the pharynx affected by the swallowing of water, may be brought about equally well by pressing the tongue against the hinder part of the palate, if a strong expiration be made at the same time. This result is obtained when the consonants "h," "c," "k," are sounded together in the most sudden manner. By the addition of a vowel we have a complete syllable: thus, "hack," "heck," "hick," "hoek," "huck." On uttering these in the succession in which they are written, the tongue is found to be pushed further backwards and more firmly upwards with each succeeding syllable, making the closure of the pharynx more and more effectual. The maximum effect is produced, when the combination of consonants "hek" is uttered without the vowel. If at the moment this is uttered, air be also forced into the nostril, from Politzer's bag, it will readily find its way into the Eustachian tube. By inclining the patient's head strongly to one side, and introducing the nozzle of the syringe into the nostril corresponding to



the ear to be injected, the chances of success are increased, and it was noted that the air entered more freely the upturned ear. The advantages claimed for this method over that of Politzer are:

1. It is simpler. The sipping of water, which is often objectionable, is no longer necessary.

2. The pharynx can be maintained in the position assumed in uttering the prescribed syllable, and air be made to enter the tubes for a longer time than is possible with the brief act of swallowing.

3. By varying the syllables, the force with which the air is made to enter the tubes can be varied.

4. This method is especially adapted for self-treatment, because the patient learns by his own sensations to regulate the force with which the current is sent into the ears.—*The Lancet*, Jan. 12, 1878.

**CONTRIBUTIONS TO THE STUDY OF CEREBRAL LOCALIZATION.**—The following two cases were observed by M. Hardy, at la Charité. One shows complete coma following disease of the sphenoidal lobe, one of the so called "mute centres" of the brain; the other lends support to the position of Fritsch and Hitzig, who place the motor centres for the extremities in the gray matter of the anterior ascending convolution. The first, a case of phthisis, gave no evidence of any alteration in motion or sensation until within a few days before death, when he passed into a comatose state, in which he died. This coma was supposed to be due to a serous effusion, but the autopsy revealed only a commencing softening of the central portion of the sphenoidal lobe, one of those portions of the brain to which no functions, either of motion or sensation have been attributed, and which have on this account been called the "mute centres." The second was also a case of phthisis, but there was here a marked paresis of the right arm and some embarrassment of speech, without, however, any affection of the intelligence. These symptoms gradually increased, both in intensity and extent, and the patient soon passed into a state of coma and died. The autopsy revealed a meningo-encephalitis at the central portion of the parietal lobe.—*Gazette des Hôpitaux*, December 9, 1877.

**EXTIRPATION OF THE LARYNX.**—The report of the case from which Dr. Foulis removed the larynx has already been carried forward to the thirteenth day after the operation. Four months later, the patient had returned home with a good voice and in improved general health. As soon as the wound was in condition, an attempt was made to introduce Gussenbauer's voice-tube, but owing to the shape and small size of the tube, and the undue contraction of the upper portion of the wound, the result was unsatisfactory. Dilatation of the contracted part, by means of the finger, was now actively pushed, and in the meanwhile a tube was made, after very considerable difficulty, to fit the wound. This tube was a modification of Gussenbauer's, but only in shape, and in the position of the reed, the principle of the two being identical. During ordinary breathing no sound is emitted from the tube, but in forced expiration the reed is set in motion, and the sound thus produced is modulated into vowels and consonants by the mouth. So perfectly does this work that, were it not for the monotony of the note, it would be impossible to distinguish anything extraordinary in the voice. By changing the reed the timbre of the voice, as well as the note, can be changed, and the patient amuses himself by making reeds of different materials, as wood, ivory, vulcanite, the metals, etc.; in this way he has at command a large assortment of voices to be chosen from at will.

This seems to prove that the quality of the human voice depends more upon the density and elasticity of the vocal cords than upon the size and shape of the buccal cavity, though further experiments tend to show that this latter has some modifying effect. It is essential that the instrument should fit accurately, and this, at first, gave much difficulty, more especially the determining of the proper length of the ascending tube. If this be too long, the epiglottis closes imperfectly, reflex action is excited in the pharynx, and the increased secretions flow through the tube into the trachea, giving rise to troublesome and continued coughing; if too short, the soft parts fold over and partially close the mouth of the tube, causing a muffling of the voice, similar to the effect produced by swollen tonsils or any other swelling which encroaches on the pharynx, while the glottis remains healthy.

There is as yet no sign of the recurrence of the growth for which the larynx was removed, and the two glands, which before the operation were large and dangerous looking, are now very small, but may still be felt on careful examination. The patient is still rather subject to colds, and during convalescence had a sharp attack of bronchitis, which for a time gave some anxiety, but he recovered well from this, and the lungs are apparently as sound as at the beginning of treatment.—*The Lancet*, January 26, 1878.

**DERMOID CYSTS.**—At the meeting of the Pathological Society of London, Mr. Wagstaffe showed three specimens of dermoid cysts growing along the lines of branchial fissures. One was removed from the inner angle of the orbit, and two others from the outer angle of the orbit, all being situated beneath the orbicularis palpebrarum, and adherent to the bone; in the first case along the junction of the lachrymal and frontal bones, in the two latter of the fronto-malar suture. Verneuil has advanced the theory that dermoid cysts of the face and neck always occur along the line of the branchial and other embryonic fissures, and are connected with them, and Mr. Wagstaffe brought forward these cases especially to elicit opinion on this point. He mentioned three cases where this was certainly not the case; one described by Mr. Arnott, situated over the suture, between the two halves of the frontal bone, another found on the torcular Herophili. Of twenty-five cases of dermoid cysts in peculiar situations, Mr. Wagstaffe found that twenty occurred along the line of the first branchial fissure. These cysts are distinguished by their depth and their attachment to the bone. Mr. Hulke said that these cysts were easily distinguished from similar growths by their depth and attachments; the bone beneath them was usually dimpled and occasionally perforated. From these cysts occurring so frequently in other situations than the branchial fissures—as the ovary and the mediastinum—he felt it difficult to accept M. Verneuil's theory. Sublingual cysts are sebaceous rather than dermoid; they never contain hair. Mr. Doran said that the cysts so common at the outer angle of the orbit lay out of the line of the clefts dividing the visceral arches, and in front of the frontal and malar bones, which are found in the membrane late when the fissures are being obliterated. On the other hand an adhesion of the epiblast and mesoblast, such as occurs in the formation of the oral cavity of the amphioxus, may produce a complicated tissue, from which these cysts spring. Mr. Bryant had seen a large number of these cases. Except at the outer angle of the orbit, there is no special site at which they occur; and he could not accept Verneuil's theory without additional evidence.—*The Lancet*, Jan. 26, 1878.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL AND THE ABUSE OF MEDICAL CHARITY.

It is well known that there are gross abuses of medical charity connected with our various dispensaries; that patients who are able to pay not infrequently receive advice gratis; that very little if any pains is taken by many specialists connected with these institutions to sift the paupers from the pretenders, and that colleges and hospitals make open bids for clinical material, and no questions are asked as regards money. All this is reprehensible, but can be looked upon even with complacency, when compared with the cool and calculating method of cheating the poor doctor out of his legitimate fees, as practised by the management of the out-patient department of the New York Hospital. It is well known that the Board of Managers of this institution openly advertise to furnish advice for the sum of one dollar per month to all patients who may apply. Of course, this offer is perfectly proper for those who cannot afford to pay any more; but when there is no intention of making any distinction, as far as these services are concerned, between the rich and the poor, the case assumes quite a different aspect.

Although, from the first, there has been a deep and wide-spread indignation against this system, strange to say very little has been openly said against it. The attending staff connected with the institution has not protested against it, and the out-door staff has worked quietly and contentedly without a murmur, and, as far as we know to the contrary, without a cent of pay. The matter has been brought up before the County Society, and the course of the managers of the hospital has been denounced; but notwithstanding months have elapsed, no further progress has been made than the appointment of a committee to report upon the subject. As an exception to this rule of apparent indifference to the points at issue, the East River Medical

Association boldly presented the following protest to the Board of Governors:

"NEW YORK, Nov. 17, 1877.

"To the Governors of the N. Y. Hospital.

"GENTLEMEN:—The out-patient department of the New York Hospital, by furnishing medical services for a merely nominal fee to patients who are well able to pay the fee ordinarily charged by physicians in private practice, is greatly injuring us and the profession generally by drawing away some of our patients, and making it almost impossible to collect our usual fees from others.

"In view of these facts, the East River Medical Association respectfully asks you to discontinue the practice of undercharging such patients."

In due time the following reply was received:

"NEW YORK, Jan. 2, 1878.

"HENRY E. CRAMPTON, M.D., *Corr. Sec. East River Med. Association.*

"SIR:—Your communication dated Dec. 7th, accompanying a memorial to the Board of Governors from your Association, asking modifications in the rules governing the out-patient department of the hospital, was laid before the Board at their regular meeting held this day.

"I am directed to inform you that after due consideration the memorial was laid upon the table.

"Respectfully your obedient servant,

"D. GOLDEN MURRAY, *Secretary.*"

It would appear from the foregoing that the Board of Governors not only tacitly acknowledge the truth of the statements contained in the protest, but decline to take any action regarding it. The appeal was eminently a respectful one, and the answer was as courteously explicit. Possibly the Association has been properly snubbed for its impertinence in interfering with the management of affairs that does not concern it. But regarding this point there is room for much honest difference of opinion. The profession at large take considerable interest in the side-issues of this question, and there must come a time when its influence will be properly felt in the desired direction of bringing about necessary reforms. In the meanwhile the report from the committee of the County Society is in order.

### CHURCH HYGIENE.

ALTHOUGH the subject of ventilation of public buildings is always in order, and has from time to time been discussed in its different bearings, it is strange that little, if anything, has been said regarding the necessity of supplying purer air to our churches. Probably one of the best reasons for this is that these edifices are occupied only for short periods, and on that account there does not seem to be much grounds for complaint or much actual necessity for hygienic reforms. Under such circumstances, when the congregations are relatively small, and when but one or two services are held daily, not much harm is done. When the contrary is the case, however, the mischief is almost incalculable. This, for instance, is the rule in the Roman Catholic churches, which not only have crowded con-



gregations, but which congregations quickly replace each other in the earlier masses without any other ventilation than that afforded by the opening of the doors. Hence it often happens that for four hours continuously the atmosphere of the church is breathed by as many different congregations without an inside change of air. The priests who officiate rarely appreciate this condition of things, inasmuch as with each service they quickly succeed each other, and are besides apparently oblivious to all other duties save those which pertain to their strictly clerical offices. It is strange, when it is so easy to obviate them, that these evils should be allowed to exist. A thorough ventilation between services is a remedy which so readily suggests itself, that it seems almost unnecessary to refer to it. The extra time required for this purpose, say ten minutes, is so small a sacrifice in comparison with the benefits to be obtained that it is not worthy of consideration. Another point connected with church-going invites a remark here, and that is the greater danger of propagation of contagious diseases in an atmosphere saturated with the exhalations of thousands of worshippers. The readiest and most efficient diluent of contagion is fresh air. It occurs to us to say also that a much more effectual way of preventing the spread of such diseases is to insist that all persons liable to carry the germs of contagion should remain away. It is melancholy to think how much the dissemination of some of the diseases at present prevailing has been, during the Lenten season, due to a neglect of these simple precautions.

#### PUBLIC ANALYST BILLS AND PREVENTIVE LEGISLATION IN GENERAL.

In a recent editorial the *Philadelphia Medical Times* discussed the Public Analyst Bill now before the Legislature of the State of Pennsylvania, and the general question of food adulteration, in a manner evincing thorough information as to the facts of the subject. This, however, would naturally be expected of the editor, Dr. Horatio C. Wood, who is one of our foremost authorities in toxicology. But he, in our opinion, gives space to the recital of familiar facts which should, particularly in a journal circulating mainly among members of the profession, be given to the discussion of remedial measures. The statistics, data, and methods of food, drink, and drug adulteration have been so often descanted upon that one wastes words in stopping to demonstrate the public necessity for legal remedies against frauds of this class, many of them innocuous certainly, but a larger number in one way or another unwholesome and detrimental. The abuse has extended of late years even to the use of toxicological agents in dyeing the flannels and merinos employed in the manufacture of underclothing and hosiery, so that a bill having for its purpose the prevention of such fraudulent practices would need to be

very large and general in its scope, and very minute and exact in its specifications. It may be somewhat doubtful whether an action would stand against a tradesman for obtaining money under false pretences, who sells fatty matter, derived from the dripping-pan, as butter, or dispenses tea adulterated with turmeric and graphite. Under the common-law practice, in which wrongs were classified as against persons or against property, such prosecutions were possible without special enactment; judicial interpretation under that practice having for its basis the idea that law is a science of administering justice, not a mere set of rules specifying offences and leaving the wronged no redress against equally flagrant offences not provided for in the Code. Perhaps a general enactment defining in what an act of adulteration shall consist, and making it a misdemeanor to sell or offer for sale any article of consumption thus tampered with, would be more efficient than any of the cumbersome special enactments agitated by persons who have given more attention to the abuses themselves than to the best method of preventing them. Bureaus of inspection have uniformly failed in this country, whatever may be claimed for their efficiency abroad. For reasons that need not be specified here, since the fact is the point important to our purpose, it is simply an argument from experience to predict that a Bureau of Adulteration, with a hundred inspectors at good salaries, would fail to produce any significant results in this city. There would be a great flourish of trumpets to commence with, a few prosecutions would be initiated for the purpose of creating a popular impression of efficiency, and then the local inspectors and the dealers in their several districts would settle into an excellent understanding with each other. Such has been the experience with similar bureaus heretofore, and there is no reason to believe that a Bureau of Adulteration would prove an exception to the rule.

There are evidently two things required to prevent the adulterations in articles of popular consumption from which so large a proportion of the profits of trade are derived. The one is a law of the simplest and most intelligible description, defining what adulteration is, and what shall be its penalties upon first, second, and third convictions. The second is a method of procedure that will enable the average consumer to prosecute with the least possible inconvenience and expense. For this purpose, such a law should provide for the appointment of competent analyzers in every city and town in the State, who shall examine and report in writing upon any article of food, drink, or medicine submitted to them, at prescribed rates, the fees to form an item in the court and criminal expenditures of such town or city. Such written report, with the affidavit of the buyer of the package, should constitute sufficient reason for issuing a warrant of arrest, and holding the grocer, druggist, milkman, or vender of whatsoever designation for trial. Such a

method of procedure, properly guarded, would secure the co-operation of the consumer in enforcing the law, and that is the main point to be aimed at in a practical and efficient administration of preventive measures

#### OUR PUBLIC PARKS.

THE recent attempts to appropriate a portion of one of our public parks for the building of an armory has met with well-merited opposition from many influential quarters, and the bill before the Legislature asking for the right of such disposal of property has been virtually defeated by a recent vote. It is pleasing to know that the Academy of Medicine was not behind-hand in adding its powerful influence to the general opposition, and by the report of its committee was able to declare so emphatically in favor of breathing-places for our crowded population. It is, perhaps, well that the subject has thus been brought so prominently before the public, inasmuch as the sentiment which a discussion of its merits will create will have an influence beyond the mere defeat of the bill, and will prepare the way for many necessary reforms in park management.

In the way of possible improvements in our public parks, we may refer in passing to the proposition recently made by a distinguished physician of this city to convert these resorts into garden schools for our children, where object-lessons upon the most comprehensive scale can be learned, and the widest scope given both to the education of the mind and the body. It seems strange, at this late day, and with all the improvements of the nineteenth century at our doors, that we are preparing ourselves to learn anew the lessons taught us by the heathen philosophers. There is no doubt if our parks could be utilized for the purposes intimated, that we could make a great advance in the direction of a higher and more useful education, not only for our children, but for the public at large. Nor does the consummation of the idea seem so far off. In the Central Park, for instance, much of the material is already at hand, requiring only some system to make it available for such purposes. But whether this can or cannot be done, it seems quite certain that the parks themselves are to be secured to us, and that the public is not willing to deliver them to the mercy of political jobbers.

#### MEDICAL EXAMINATIONS FOR THE ARMY.

THE Army Medical Examining Board is now in session in this city, prepared to examine candidates for vacancies in the Medical Corps. There is no good reason why there should not be a large number of applications. To young men especially, an entrance in the army affords a fine opportunity, for the first few years, of earning a decent competency, and of preparing the way for a successful career in civil practice

The pay is sixteen hundred dollars per annum, with fuel and quarters, with an increase every five years, and a retiring or sick pension when the time arrives. These are advantages in a pecuniary sense which cannot be approached during the first years of civil practice, and which should be taken into account by one whose necessities compel him to earn a living at once. Candidates must be between the ages of twenty and twenty-one years, citizens of the United States, in perfect health, present and prospective, graduates in medicine, of good morals, respectable family, and careful breeding. They must also be thoroughly educated in the branches taught in the common schools, extra qualifications in this direction weighing proportionately strong in his favor. There are now fifteen vacancies in the corps, and there are enough good men and true who should fill them at once. The address of the Board is 1193 Broadway, N. Y. At the end of the examinations we propose to give the names of the successful candidates, with those of the medical colleges from which they graduated.

#### HOSPITAL PLANS AND SPECIFICATIONS.

CIRCULAR No. 10, War Department, gives a series of specifications and elevations for the erection of post hospitals, capable of accommodating from ten to thirty patients, which may be regarded as embodying the experience for many years of army surgeons in such matters. The circular is not noted here for the purpose either of describing the structures in use at military stations or of criticising them; but rather as suggesting what may be accomplished in the way of efficient hospital work at a very moderate expenditure. The question, how to take care of the indigent sick, is one that has presented itself to physicians in every village and small town in this country, as a question calling for some practical action; and here, with trifling modifications, perhaps, in external appearance, are supplied a series of hospital models, which can be carried out with such a trifling expenditure, that no town, village, or small city need be without facilities for the care of pauper patients. The tendency to build pretentious buildings, instead of making comfortable and adequate provision, at a moderate cost, is one that pervades the whole theory of medical treatment in this country. It is not alone in our insane asylums, but in hospitals of every class, that the mania for expenditure and show has been permitted to overbalance considerations of efficiency in the application of funds to the purpose for which they have been appropriated or subscribed. This War Department pamphlet reads a lesson on hospital arrangements to the whole profession.

THE PHARMACOPŒIA OF ITALY.—There is no pharmacopœia for Italy.



## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting February 27, 1878.*

DR. J. C. PETERS, PRESIDENT, IN THE CHAIR.

(Concluded from page 237.)

#### TUMOR À MYÉLOPLAXES OF THE UPPER JAW.

DR. LEWIS A. STIMSON presented a tumor of the upper jaw. The patient, a married woman, 40 years of age and of healthy antecedents, was admitted to the Presbyterian Hospital, Feb. 13, 1878. Eleven weeks previously she noticed a small lump on the gum below the left side of the nose; at that time she had only two teeth, the second molar and eye-tooth, and the stump of the first molar on the left half of the upper jaw. The tumor grew rapidly and was at times the seat of gnawing pain. Eight weeks after its appearance she had the eye-tooth drawn; this was followed by a severe hemorrhage lasting for an hour, and by moderate bleeding for about twenty hours more, and since then moderate bleeding has occurred frequently.

When admitted to the hospital she presented on examination a swelling above the margin of the left upper lip, which obliterated the normal depression corresponding to the canine fossa, and depressed the left angle of the mouth. On raising the lip a dark-red tumor was disclosed, extending along the left upper jaw from the median line to the stump of the first molar. Its form was globular, its surface smooth; its antero-posterior diameter measured one and one-half inches, about two-thirds of it lying outside the line of the teeth. Its upper border was on a line with the top of the ala nasi, and was interposed between the gingivo-labial fold and the bone. The surface of the tumor was covered with mucous membrane, showing on the outer side numerous tortuous and dilated vessels and one or two small abrasions; on the inner side the fibro-mucosa of the hard palate appeared to be unaltered. The line of the teeth was marked by a sulcus. The tumor was firm and elastic, did not crackle, and could not be reduced by pressure, and was painful only at its upper border. No enlarged glands could be felt either behind or below the inferior maxilla.

It was removed by an operation February 19th. A vertical incision was made through the skin, beginning at the side of the nose and passing downward around the ala and through the lip in the median line. The ala was separated from the bony margin of the nostril, the flap dissected outward over the top of the tumor to the malar process of the superior maxilla, the bone cut through with saw and pliers in the median line, a cut made with the pliers across the anterior wall of the antrum from the nasal fossa, and another cut made downward from the extremity of the latter to the second molar tooth. The portion of bone thus circumscribed was bent upward, cracking the palatal process, the mucous membrane of the hard palate was divided with the knife along the line of fracture, and the piece removed. The hemorrhage from the cutaneous incision and the under surface of the flap was very free. The posterior palatine artery was tied, and the bleeding from a small artery on the wall of the antrum, which could not be twisted, was arrested by means of the thermo-cautery. All other bleeding points were secured by torsion, the flap replaced, and its edges united by sutures.

Primary union was obtained throughout the entire

extent of the cutaneous incision, and the inner wound is granulating nicely.

On examination of the piece it will be seen that, with the exception of a small piece of the floor of the antrum and of the nasal fossa, and the socket of the first molar, the portion removed is composed solely of the tumor. Vertical section of the tumor shows that the corresponding part of the alveolar process and body of the bone has been entirely absorbed as far up as to the floor of the nasal fossa and of the antrum. The surface of section is dark red, dry, with a few white fibrous bands crossing it vertically. The inferior surface of thin plate of bone limiting it above is rough and irregular, and intimately adherent to the tumor. The mucous membrane of the gum and hard palate shows as a white layer on the inner side, about 1 mm. thick; on the outside it is much thinner, and has even disappeared entirely in places.

Microscopical examination shows the growth to be composed of fibrous tissue fully formed in some places, containing numerous vessels, a great number of myéloplaxes or giant cells, and some medullocelles. The existence of these two forms of cells is worth mention because it was never found by Prof. Robin, the discoverer of myéloplaxes.

The tumor, then, is an intra-osseous epulis (in the broader sense of the term) originating in the bone rather than in the periosteum, of the kind known as *myeloid tumors*, and of the variety *myéloplaxoma* or *tumeur à myéloplaxes*, in view of the preponderance of these elements.

These tumors, while not common, are still not rare; and their diagnosis, either before or after removal, is of great importance in view of their benign character, which is in such striking contrast to their malignant appearance. Here is a tumor of rapid growth, very vascular, occupying and absorbing bone, occurring in a patient forty years old, and at a point where a complete, or, *a fortiori*, a second removal might be very difficult and could be accomplished only at the expense of a serious mutilation. Its diagnosis, therefore, is of the utmost importance both as regards treatment and prognosis; and while all tumors *à myéloplaxes* cannot be positively recognized before removal, yet a strong presumption can often be established. The elements of the diagnosis in this case were, in the order of their value: the dark red or deep vinous color of the growth, its location in the spongy portion of the bone, the hemorrhages, the absence of glandular enlargement, of cachexia, and of pain. The color persists after removal, and is also found on the surface of section; it is not due solely to the pressure of blood or of its crystallized elements, but also to the reddish color of the myéloplaxes themselves, as may be seen under the microscope.

The position of the growth may be considered the natural result of the normal position of the myéloplaxes, for they are found especially in cancellous tissue and in the medullary canal, although also along the sides of the Haversian canals as far as to the periosteum. In the upper jaw the most common situation of the tumor is in that portion of the bone where the cancellous tissue is mainly found, and especially at the inner limit of the canine fossa. The process of development seems to be analogous to that of rarefying osteitis, the bone being absorbed as the new tissue increases.

The absence of glandular enlargement and of cachexia in this case corresponds to what I have found recorded in other cases, and also to the natural history of the affection, which is a purely local and not a diathetic one.

The age of this patient is above the average, which, according to the statistics of forty-nine of these tumors occupying different parts of the body, observed or collected by Eugene Nélaton, lies between the ages of twenty and thirty years. The same statistics indicate that generalization is never met with, and that local return is rare, and due, whenever it occurs, to incomplete removal, as by gouging or scraping with the fingers.

The operative indication to be drawn from these characteristics is that it is necessary only to remove the tumor and those parts that are immediately continuous with it. It is unnecessary to go farther and remove the entire bone. Free hemorrhage may be expected during the operation. Finally, if the microscope confirms the diagnosis, the patient may be assured that the tumor was not a malignant one, and that its return is not to be expected.

#### ROUND-CELL SARCOMA OF THE CALF OF THE LEG.

DR. SRIMSON next presented a tumor occupying the calf of the leg. The patient, a German, widowed, thirty-seven years old, and of healthy antecedents, was admitted to the Presbyterian Hospital, February 11, 1878. In January, 1876, patient had a tumor removed from the right gluteal region, by Prof. A. C. Post, after two unsuccessful removals by another surgeon. The wound healed promptly, and the scar shows no sign of a return of the affection. The tumor was said to be a sarcoma.

In November, 1877, patient noticed a lump on the inner side of the left leg, just behind the middle of the posterior border of the tibia. It was at first painful, especially at night, and grew rapidly.

At the time of her admission to the hospital she presented a globular tumor in the calf of the left leg, as large as the fist; the circumference of the limb at that point measured 38 centimetres, that of the other limb 28 centimetres. The skin covering it was normal in color, thickness, and temperature, and not adherent; the tumor was regular, hard, elastic, not fluctuating, and movable, but the mobility could be greatly diminished by making the sural muscles tense. The tendo Achillis could be traced directly up to it and seemed to enter it posteriorly.

The glands in the groin could be felt distinctly, but were not very hard or enlarged. The abdominal viscera seemed normal. The right cavity of the thorax had been the seat of an acute pleuritic effusion, which was drawn off about three months ago. Dulness was found on that side, at the time of her admission, extending up to the fourth intercostal space, together with other signs of a reaccumulation of liquid.

Patient walked with great difficulty, and said the muscles of the calf felt stretched, and that sometimes the heel could not be brought to the ground.

Feb. 16th the patient was anesthetized and an Es-march band applied. I cut down upon the tumor, and found that it lay between the soleus and the deep flexors; that it was closely adherent in front and behind both to the muscles and to the bone, and that it was very soft and friable. After consultation with the other surgeons of the hospital, I amputated immediately through the condyles of the femur, making a long anterior flap, and cutting the posterior segment of the limb almost straight across.

The amputation was performed under the spray, and the wound treated antiseptically; to-day, eleven days since the operation, the drainage tubes are out, and the wound is almost entirely healed.

The tumor is ovoid, 4 inches long, 2½ thick, 3½ wide; its surface, where it can be exposed, is regular,

the color reddish gray, the consistency soft and friable. It has pressed the body of the soleus to the outer side, and distended its inner portion until it is not more than one-eighth of an inch thick; above, below, and on the outer side it cannot be separated from the muscle. It is closely adherent to the fascia along the line where the latter is inserted into the posterior inner border of the tibia, and through it to the periosteum. This union is so firm that the base of implantation is immovable. On the other side are seen a group of lobular prominences extending along and intimately adherent to the sheath of the posterior tibial artery. The nerve is not involved.

On section the tumor appears to be composed of two distinct portions: a central one, one inch in diameter, white and very soft; a peripheral one, reddish and very vascular, containing some large arteries and large veins.

Microscopical examination shows the tumor to be composed of small round cells closely packed together, with a granular, intercellular substance in places. Some of the cells show a distinct cell-body; some have two nuclei; others show no cell-body; some look exactly like leucocytes with sarcoid expansions.

#### MORBUS COXARII.

DR. SAYRE presented the upper extremity of the femur, which made the seventieth specimen of excision which he had presented to the Society. He remarked that it was a very good specimen to show the propriety of the operation. The patient from whom the specimen was removed was a boy aged seven years. Two years and nine months ago he had measles, followed by scarlet fever, and then mumps. From all of these he appeared to have recovered. Soon after he fell upon his hip, causing an inflammation in the neighborhood, and in due time an abscess. The latter was duly opened by Dr. Peugnet. From that time the disease continued, and the boy was confined to his bed for over two years. When Dr. S. saw him the limb was shortened three inches, adducted and flexed strongly across the opposite thigh. There were sinuses upon the inner and outer aspect of the thigh, the discharges from which had very much reduced the patient. On consultation with Drs. Smith and Sabine, it was concluded that the child could be benefited by an operation. The latter was accordingly done. The head and neck of the femur were entirely gone, and a portion of dead bone was firmly encased in an involucrum exceedingly hard and one-eighth of an inch in thickness. Up to the time of reporting the case the child was doing well.

#### A CASE OF DOUBTFUL ABORTION.

DR. FINNELL exhibited a fœtus of six months' growth, which had been expelled by induced abortion. The mother, a single woman, came to this city for the purpose of having an abortion produced. She applied to a person who, from all accounts, performed the service, and the child was duly born dead. The abortionist denied the charge, and the question rested upon the significance of an ecchymosis of the left shoulder and left upper extremity—whether such a condition was a sufficient proof of violence having been used. It is proper to state, in this connection, that the case was one of arm-presentation.

None of the members were willing to commit themselves to an opinion upon these points.

The Secretary then presented a specimen for a candidate.

After which the Society went into Executive Session.



## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, March 7, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

## CLINICAL OBSERVATIONS ON THE EARLY STAGES OF SCARLATINA, WITH SUGGESTIONS AS TO PATHOLOGY.

DR. C. E. BILLINGTON read a paper upon the above subject (vid. pp. 221 et 243). It being before the Academy for discussion,

DR. FORDYCE BARKER remarked that he fully accepted the clinical facts set forth in the paper, but was inclined to raise a question regarding the deductions which had been made from those facts. He was quite sure the writer of the paper did not expect that the conclusions which he had reached would be accepted without the most careful investigation. He was not prepared, however, to say that those conclusions were erroneous, but believed that the writer would be best complimented by examining the method of reasoning by which his conclusions had been reached.

First, with regard to incubation. It had often seemed to Dr. Barker that the term incubation, as ordinarily employed, had two significations: the one being the length of time which a poison could be retained anywhere and still retain its vitality; and the other being the length of time during which the poison might be deposited in the system, and remain latent before the first characteristic phenomenon of the disease manifested itself. In our loose way of speaking and writing, the term incubation was used to cover both of these points. He believed there was abundant evidence to prove that the poison of scarlet fever could be preserved in houses, in clothing, etc., for weeks, months, and for more than a year, and finally develop its full effects in a human system which was in a favorable condition.

The history of a case was then related, in which a woman in the puerperal condition was attacked with scarlet fever, and there had been no exposure to the poison, save that which came from wearing a wrapper that had been packed in a trunk for several months, and which, just previous to its packing, had been worn while taking care of a child sick with the same disease. This was one of many cases that could be related, illustrating the long period of time which the poison could be retained in clothing, and remain capable of producing its full effects.

Next, as to the length of time the poison remained in the system before it acted upon the individual. There were some cases which seemed to demonstrate that the poison could manifest itself within twenty-four hours after exposure. In other cases the poison seemed to be inactive for a much longer period of time. The length of time that elapsed seemed to depend upon the peculiar condition present in the system into which it was received and developed.

There probably was no question regarding the statement concerning the specific nature of scarlet fever, but it had seemed to be the aim of the author of the paper to demonstrate that the primary effect of the poison was produced on the mucous surfaces of the throat; that the same influence often extended to other persons not sufficiently susceptible to allow of its development, hence they escaped the disease. Dr. Barker was not prepared to say that such was not the case, but to his mind there were to the theory several important objections, which must be answered satisfactorily before it could be accepted. In the first place, the author assumed that there was no evidence

that the poison of scarlet fever produced blood-changes as a *primary* effect. Was that true? Were not all the phenomena of the disease due essentially to blood-changes? No, said the author; and claimed that many phenomena of the disease, such as nausea, vomiting, cerebral disturbance, etc., were secondary to the throat-symptoms. Dr. Barker found great difficulty in fully accepting that theory. There was a class of cases, of which he had seen a few illustrations, where the system was so rapidly overwhelmed with the poison, that life was destroyed within a few hours, and before the development of but few of the characteristic phenomena of the disease. Several illustrative cases were reported. The question was asked: "What was it that destroyed life in those cases?" The answer which Dr. Barker had given was, that death resulted in consequence of paralysis of the vaso-motor system of nerves produced by the overwhelming effect of the scarlet-fever poison.

Another suggestion made by Dr. Barker related to the influence which diphtheria might have had upon the series of observations made by Dr. Billington. In the year 1858 a fatal epidemic of diphtheria prevailed in the city of New York, and since that time the disease had had a continuous existence among us. Might not the epidemic influence of diphtheria, existing as a complication, account partly for the appearance of the throat in Dr. Billington's series of cases.

DR. GARRISH referred to several cases which seemed to show that the poison of scarlet fever could remain in rooms for a long period of time and yet retain its activity, and also that the disease could be conveyed in clothing.

DR. POST believed that in the class of cases in which the onset of the disease was severe, there was no relation between the severity of the symptoms and the accompanying sore-throat; in the protracted cases, however, there was usually an agreement between the general and the anginal symptoms. He also believed it to be necessary for the medical man to exercise certain precautions in order to avoid conveying the disease from one family to another. Careful ablution and airing should be secured after visiting patients sick with scarlet fever before visits were made in families exempt from the disease. It was also regarded as important to disinfect the hair of nurses and those in constant attendance upon patients sick with scarlet fever, for if that precaution was not taken it might be the medium through which the disease was conveyed, as had been shown by cases.

DR. J. C. PETERS believed in the local origin of the disease; that the system was affected through the throat and the blood even more rapidly than Dr. Billington was willing to admit. The history of a case was related, in which the throat symptoms were distinct, although exceedingly slight, and yet the patient died within twenty-four hours. Dr. Peters believed in the local origin of constitutional diseases.

DR. ANDREW H. SMITH remarked that there were quite a list of constitutional diseases with which sore-throat was more or less frequently associated. Besides the one under discussion, there were typhoid and typhus fevers, measles, small-pox, diphtheria, and syphilis, and perhaps some others. Most of those diseases were communicated through atmospheric agency or in some unknown way; but small-pox and syphilis might be introduced into the system at a known point distant from the throat, and yet throat symptoms result. Small-pox, the result of direct inoculation upon the surface of the body, was as likely to cause angina as if communicated through the atmosphere. Syphilis introduced into the system at any

point produced throat lesions. Those facts, together with the widely different diseases with which sore-throat was found associated, pointed to some peculiarity of the location which predisposed it to be the seat in which constitutional poisons worked out their local action; and this peculiarity probably consisted in the extreme glandular activity of the part.

Dr. S. also suggested that the effect of glandular action might be seen in the cutaneous eruption in scarlatina. The eruption was punctate, and probably each minute point would be found to correspond with the orifice of a perspiratory duct, the integument being irritated by a poisonous element which was being eliminated with the perspiration.

Dr. HANKS related some rapidly fatal malignant cases—one lasting only twelve hours—which had occurred in his early practice, and had upset a theory which he had previously held that all cases of the disease were curable. He considered Dr. Billington's statistics, showing that fifty per cent. of children exposed to the contagion of the disease might escape it, as interesting and important. He thought there were physiological reasons why the eruption should appear in the throat sooner than on the cutaneous surface.

Dr. BILLINGTON said, in concluding the discussion, that the fact referred to by Dr. Smith, of the appearance of throat congestions in connection with many constitutional diseases, had not been unthought of by himself. If it could be shown that angina was constantly the earliest secondary symptom in diseases which could not be supposed to originate in the throat—as, for instance, syphilis—it would militate strongly against the hypothesis of the reception of scarlatinal poison at that point. But he had not observed, nor been able to learn from others, that such was the fact; and he inquired if any of those present could say that it was. The point, however, was not essential to the rest of his argument; the chief object of which was to show that certain local morbid processes, however produced, might be the real causes of the constitutional disturbances in the disease.

With regard to the apparent difficulty, which had been spoken of by several in the discussion, of accounting for the phenomena of malignant cases on any other hypothesis than the generally accepted one of an overwhelming blood-poison, Dr. Billington said that he had anticipated the objection, and had endeavored to meet it in the paper which he had read. He thought that in considering this point one generally admitted principle should have its due weight. That principle was, that it was not in the exceptionally malignant forms of any disease that we could best study its natural history. Diseases—especially specific ones—could for obvious reasons best be examined and analyzed in typical cases of medium severity. He thought that the difference between the nerve-disturbances, often seen at the onset of such cases of scarlatina, and those that occurred early in the most malignant forms, was one of degree rather than of kind. He referred to cases of ordinary follicular tonsillitis which he had himself seen in young children, accompanied by convulsions and other severe nerve-disturbances and high temperature, and thought that the still more intense local irritation, which he had pointed out as probably present in the scarlatinal angina, might account for the greater severity of the earlier phenomena in malignant cases. This being the starting-point, blood-change and other complications would, as he had further indicated, follow with especial rapidity.

Dr. BEVERLEY ROBINSON referred to the fact that some attempts to inoculate diphtheria in the fauces

had been unsuccessful, and remarked that, owing to the greater thickness of epithelium in that situation, local absorption of poison would be less likely to occur there than further down in the air-passages. He also stated that he had in some instances seen faucial redness contemporaneous with primary chancre.

The Academy then adjourned.

*Stated Meeting, March 21, 1878.*

Dr. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### LAPARO-ELYTROTOMY AS A SUBSTITUTE FOR CÆSAREAN SECTION.

Dr. T. GAILLARD THOMAS read an important paper upon the above subject, gave a detailed report of all the cases in which the operation had been performed, and set forth the advantages which it had over that of Cæsarean section.

The operation had been performed only once prior to the date at which Dr. Thomas performed it in 1871, and then by Ritgen. It had been performed upon the living woman since that date *five* times, three times by Dr. A. J. C. Skene, of Brooklyn, and twice by himself. Of the five mothers *three* were living, and the number of children delivered alive was *four*. No such results could be shown for the Cæsarean section, and no better results had followed embryotomy. All the cases had been reported and published, with the exception of the last, which was operated upon in December, 1877.

The operation was simple, and consisted of making an incision through the abdominal walls from the spine of the pubes to the anterior superior spinous process of the ilium, lifting the peritoneum, making an incision through the upper portion of the vaginal wall, tilting the body of the uterus over to the opposite side, and then, through the dilated cervix, delivering the child by version, by the forceps, or by extraction. Delivery was to be effected by version in arm-presentation; by forceps when the head presented; and by extraction in breech-presentation. Hemorrhage was one of the things to be feared in the operation; but in five cases no hemorrhage had occurred, and why should it occur in future operations? But, even admitting that hemorrhage occurred, it became a question whether the risks should not be taken, because the risks of peritonitis and shock following other operations were avoided. The dangers of Cæsarean section were peritonitis, metritis, hemorrhage, shock, incarceration of the intestines in the uterus and septicæmia. By the operation of laparo-elytrotomy the danger from peritonitis, metritis, and incarceration of the intestines was entirely avoided, and, in a great degree, the danger from septicæmia and shock was diminished. The operation might be followed by hemorrhage, and, in place of peritonitis, cellulitis might be developed. Dr. Thomas did not regard laparo-elytrotomy as yet an established standard operation, but he did regard it as an operation sufficiently tested by experiment to deserve a careful consideration at the hands of the medical profession.

The paper being before the Academy for discussion, Dr. FORDYCE BARKER was called up by the President and spoke as follows: *Mr. President and Gentlemen:*—I am sure I express the universal feeling of all present in congratulating the author of the paper for his genius in devising this operation, for his success in performing it, and for his ability in giving us this most interesting paper. But here I may express the hope that if the gifted author is going on to devise new operations of such importance, he will give such names to them



as will be significant and easily understood by those of us who ordinarily use simple English, and enable us to follow the advice of Hamlet to the players, "Speak it trippingly from the tongue." There are many surgeons in this country who understand Pirogoff's operation, and are perfectly competent to perform it, who would hardly know what was meant if it were called by some name of Greek derivation. In speaking of the operation now under discussion I shall use a term more easy of utterance by my vocal organs, and call it "Thomas' operation."

The paper to which we have listened this evening opens an immense field for discussion, and I could not help but feeling, while it was being read, that the number of points involved in the discussion of this question, in connection with obstetrics, is greater than in any other operation which has been devised in modern times. It would, therefore, be utterly impossible, in an extemporaneous speech, to do anything like justice to all the points suggested by it, and I must simply attempt to give a broad and comprehensive view of some of them in a most cursory and superficial manner, as I know there are others present whom all will be anxious to hear.

The subject involves discussion not only of great questions in science, but also questions of professional morals, which it seems probable must be reopened and new points established in relation to them in our practice.

*First.*—This operation, as a question of science, is to be compared with Cæsarean section. Is "Thomas' operation" to take the place of Cæsarean section as a whole, or only in a limited class of cases? This is one of the questions which I presume every one will ask. That it will be an accepted operation in some cases, I am perfectly sure. I do not mean to imply that the author has assumed the position that his operation will entirely take the place of the Cæsarean section; but I ask, on my own part, whether it is to take such a place—and whether it will prove to be so much safer as to lead us to give up the Cæsarean section entirely? This question can be answered only by careful study of all the conditions, and by an experience which will require a long period of time to accumulate.

There is one consideration which was not alluded to in the paper, and it is this: I have no doubt that the author of the paper fully believes that when, in the course of time, all the conditions necessary to the successful performance of Cæsarean section have been studied with the same carefulness, with the same minuteness, and the same amount of experience has accumulated as we now have in relation to the operation of ovariotomy, that the mortality from the Cæsarean section will be greatly diminished. I am not sure that the mortality from that operation will be found to be any greater than the mortality which will result from the operation which he proposes to substitute for it in a majority of cases. For, while the author of the paper has given a clear statement relative to the comparative danger in the two operations, with all due respect, I am not quite prepared to accept all the results just as he has stated them, or to exclude all the dangers referred to as belonging to his operation, and which he seems to believe belong to the Cæsarean section. Of course it will be profitless to discuss this theoretical question. I say, however, that I think it is possible that, with improvement in the future, the mortality from Cæsarean section may be so reduced as to make it nearly as safe, or perhaps more safe in some cases, than the operation proposed by Dr. Thomas. Improvements in operations and in methods

of management are constantly being made. One of the great dangers of Cæsarean section is subsequent septicæmia resulting from entrance of lochial discharge into the cavity of the peritoneum. It has been proposed as a method of obviating this danger, after the abdominal walls have been opened and an incision into the uterus has been made, to bring the uterine and the abdominal walls together by means of sutures, so as to bring the peritoneum of the uterus and that of the abdominal walls directly in contact, before removing the fœtus and placenta. Lestocquoy, who first suggested this modification, which, it seems to me, will prove a great advance in the method of performing the Cæsarian section, tested it in one case and was successful.

Tarnier has performed this operation twice, and in both cases the women died of gangrene of the uterus but this result cannot be regarded as due to this modification. One of his cases, however, was complicated by the fact—a rare circumstance—that the placenta was situated upon the anterior surface of the uterus. Now, it becomes us all, and I presume no one is more anxious than the author of the paper, to thoroughly investigate every possible point and ascertain the exact importance and the true value of the operation which he proposes.

If it should come to pass that in a certain number of cases the danger of one operation is found to be no greater than the other, this advantage, which, perhaps, it may be well to consider, will follow the Cæsarean section, viz., the condition of the patient is much more favorable than after the operation which has been brought forward. For, if it results favorably, it leaves no lesions behind it, no condition of the patient which hinders her from performing the functions of a wife and a mother as well as before the operation is performed.

*Second,* let us consider this operation in its relation to craniotomy. Is craniotomy to be abolished from now henceforth and forever as a legitimate obstetric operation? No one would propose the operation devised by Dr. Thomas when the fœtus is dead, except in the very rare circumstances under which it was performed by Dr. Skene. Consequently the question remains to be discussed—Suppose the fœtus to be *living*, whether hereafter and forever Thomas' operation is to abolish the operation of craniotomy? By craniotomy it must be remembered that I mean the operation of the present day, with all the improvements resulting from the use of the cranioclast and the cephalotribe. These improvements make the operation, with regard to the safety of the mother, altogether different from what it was formerly.

I fully agree with the hint thrown out by the author of the paper, that, in settling any of these obstetric questions, arguments based upon statistics are entirely valueless. Take, for instance, the operations both of Cæsarean section and of craniotomy: in these statistics are included those cases in which, before the operation, the woman is exhausted and unfit to bear any operation; all those cases in which the operations are improperly performed, and performed by improper instruments; and all those cases in which the operations are performed by inexperienced and inexpert obstetricians. Consequently such cases as these should have no bearing in settling the question whether or not the operation is justifiable or expedient.

If "Thomas' operation" is to abolish that of craniotomy in those cases in which the fœtus is living, we must necessarily, in certain respects, review, and I may say almost revolutionize, the obstetric ethics

of the profession. If there is any one *canon* settled in obstetric science as regards ethics, and accepted universally by all creditable authorities, it is this: where the obstetrician is compelled to make an election, whether the life of the mother or the life of the child is to be preserved, he is to preserve the life of the mother. As a direct consequence of this doctrine, it necessarily follows that no obstetrician has a right to perform an operation to save the life of the child in which there is serious risk for the mother, when by another operation that danger can be entirely avoided, although it sacrifices the life of the child. I wish to say distinctly that, while I believe I am correct in saying that every obstetric authority of any weight, both in this country and in Great Britain, holds to this view, I do not say that it is exactly my own view; I think I should qualify it somewhat.

But then comes the question, Is there any obstetrician who would be sustained by the profession in performing an operation which must involve some risk to that mother, when it is perfectly certain that we have a method of extracting that *fœtus* without any danger to the mother from the operation. I believe I am safe in saying that no physician would be sustained by the moral sense of the profession in doing it, if it became a question for trial or discussion.

Now, then, it is believed by all competent obstetricians that craniotomy can be performed with perfect safety to the mother with a contraction of the antero-posterior diameter down to two inches, provided there be a transverse diameter of three inches and the diameters of the inferior strait are normal. With our modern improvements in instruments and our present knowledge of the mechanism of labor, Barnes, Braxton-Hicks, and many other eminent authorities believe it possible and safe, with a contraction of the antero-posterior diameter to one and three-quarters, and even one and a half inches. In these cases, for the sake of saving the child, are we justified in performing an operation which involves serious danger to the mother?

These are very delicate points to settle. Where are the limits? When shall we say that Thomas' operation shall be performed under the hope and expectation of saving the life of the child, but, it must be stated, with a certain amount of risk to the mother? While every conscientious, honest obstetrician would carefully ask himself these questions, enthusiasts and partisans would promptly and dogmatically answer them one way or the other, according to their special moral and mental bias.

I will close by saying this: whatever the future may determine as to limit in the class of cases to which Thomas' operation is applicable—whatever the discussion of the future may be as to how far it is to take the place of Cæsarean section or of craniotomy, I am certain that the great merits of the operation will be so established in obstetrics by the profession at large, and throughout the entire world, as to satisfy the ambition of any man, to be regarded as a great contributor to the advance of the obstetric art in a limited class of cases. It struck me, while listening to the paper, that one of the cases of Dr. Skene furnished one of the most brilliant triumphs of the obstetric art of which I have any knowledge. As I see Dr. Skene present, I am sure that the President would do us all a favor by calling upon him for an expression of his views in regard to the operation.

Dr. A. J. C. SKENE, upon invitation, remarked that he had had no regrets in following in the footsteps of Dr. Thomas with reference to the operation under consideration. He had performed it three times, and with results such as had been stated. The paper included

all his former knowledge upon the subject, and much that was new to him; hence, he did not wish to occupy the time of the Academy in its discussion.

Dr. T. C. FINNELL referred to three cases in which he had performed Cæsarean section under very unfavorable circumstances. All the mothers died and two of the children. He was of the opinion, however, that the Cæsarean section was the safer operation. He raised his solemn protest against taking the life of the child under any circumstances. When the child was dead, there was an operative procedure to which resort could be made.

Dr. PAXTON regarded laparo-elytrotomy, or Thomas' operation more properly called, as one which was destined to take the place of Cæsarean section. He was of the opinion that to Dr. Thomas belonged the credit of devising the operation.

Dr. THOMAS, in closing the discussion, remarked regarding the name of the operation, that he was forced to select the term laparo-elytrotomy, because it was the only one which was not in some way intimately associated with other operations.

The weakening of the uterine walls which inevitably followed Cæsarean section was avoided by laparo-elytrotomy, and thereby one of the important causes of rupture of the uterus was avoided.

One reason why rupture of the vagina during labor was so generally followed by fatal results was because it gave opportunity for infiltration of the adjacent tissues with discharges from the uterus. There was nothing in rupture of the vagina simply which would kill a patient; for rupture into the bladder very seldom destroyed life, and it was because free drainage could take place. When, however, rupture of the vagina occurred in its lower portion, so that the cellular tissue of the pelvis could become involved, the accident was very serious; but by this operation the opening into the vagina was made so that free drainage could be secured. The drainage could be facilitated by injection of antiseptic fluids, and thus the tendency to septicæmia avoided. The opening being made upon one side of the vagina, it was thought that it would remain closed, and it was believed that the calibre of the vagina would not be interfered with. With regard to the ethical question, the paper was entitled Laparo-elytrotomy as a Substitute for Cæsarean Section, and special pains had been taken not to bring the operation forward as a substitute for craniotomy. He was very sorry, indeed, to think that any physician could not take, under certain circumstances, the responsibility of destroying the life of the child. He believed there were circumstances which would justify him in taking the life of another man; and he also believed that he who stood upon the bank of a canal and saw a person drowning, and did not make some effort to save that person, was nearly as guilty as he who pushed the person into the canal with the avowed purpose of drowning him. The obstetrician who stood by the bedside waiting for the child to die was nearly, if not quite, as guilty as he who took the life of the child.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.—In Dr. J. C. Peters's address before the N. Y. Pathological Society, the names of Drs. E. Krackowizer and Frank H. Hamilton were accidentally omitted in the list of former Presidents.

THE HUNTER'S POINT NUISANCE.—The bill for the abatement of the Hunter's Point nuisance, which has been before the Assembly since January 23d, has been recommitted by a political trick, and the prospect of its prompt passage is very poor.



## Correspondence.

## THE COMMITMENT OF THE INSANE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Referring to the case of Miss Dickie, in his letter to the RECORD of last week, Dr. Bradley speaks of "the fact that she is not, *and has not been* insane." That she is not now insane I am ready to admit, upon the evidence of the experts and the verdict of the jury. But what right have we to assume that she was not insane six years ago, at the time of her examination "by perfectly competent men, according to due process of law." I am also quite prepared to believe, not only upon the reputation of those gentlemen for knowledge and integrity, but from a large experience of similar cases, that Miss Dickie was insane at that time, and that her confinement was perfectly legal and proper. At any rate, there can be no doubt, as you have said, that the recent examination and verdict "should not be held to prove that there was a dreadful mistake made in committing her to the asylum" in 1872.

But we are obliged to suppose that at some time in these six years Miss Dickie became sane, without her return to sanity having been recognized, or at least without its having led to her release. And there is no denying that this fact has tended seriously to weaken public confidence in asylums. How to guard against the occurrence of such abuses, is the question.

The plan of increasing the delays and difficulties of commitment to asylums, in order to prevent the incarceration of sane people, certainly does not meet the requirements in cases like that of Miss Dickie, and I believe it is now generally conceded to be unwise and unnecessary.

The scheme of a lunacy commission, composed in part of experts in mental disorders, to whom all the insane shall have free access by letter, and who shall frequently visit asylums and have power to discharge their inmates summarily, has proved useful in other countries, and is certainly worthy of trial.

But there is another, and I believe a far more effective, safeguard against the peculiar abuses of asylums. It is an obvious one, and has been often proposed, but has not been adopted, mainly because of the determined opposition of the Association of American Superintendents of Insane Asylums. The plan is, to confine the medical head of an asylum to his medical duties alone, devolving the labor and responsibility of its business management upon a superintendent or warden. At present the non-medical affairs of asylums occupy all the time of their medical superintendents, and medical duties are left to be performed by the assistant physicians. Now, it is obvious that the delicate and most important duty of examining into and judging the mental condition of patients cannot be delegated. To delegate such a responsibility is practically to dissipate it. On this point nothing more need be said.

There is another still more cogent reason for relieving medical officers from the financial responsibility of asylums. The law which carefully forbids them to certify the insanity of any one for the purpose of committing him to an asylum, gives them an irresponsible and nearly absolute control over the patient when in their care. If this is perhaps unavoidable, certainly it affords the best reason why these officers should not be placed under a strong temptation to abuse their trust, by charging them with the entire financial man-

agement of their asylums. Unless they chance to be made of wholly different stuff from other public officers, all the consequences pointed out by Dr. Wilbur will surely follow. Public patients will gradually be crowded out of asylums to make room for the private class, who can pay higher rates. The convalescent will be kept so long as perhaps to become insane again, from a rankling sense of neglect and injustice. Those who most need care will be sent away or refused, because there is little profit in keeping them; while quiet cases, who would do as well at home, are retained for an opposite reason. There will also be the danger of so overcrowding asylums with patients as to neutralize the advantages of care and treatment which they should afford.

Surely, it is not too much to insist that in a decision involving the liberty and sanity of an innocent and most unfortunate fellow-being, the judgment of a medical expert should not be exposed to the least bias from the source indicated. Let me enforce the argument upon this point, by the authority of Dr. Earle, the venerable superintendent of the Northampton (Mass.) Lunatic Hospital. He believes that the number of those set down as "recovered" in the returns of a lunatic asylum may differ 25 per cent., according to the person who decides upon their condition. In other words, he holds that vanity and self-interest may act unconsciously on the mind of a superintendent to add 25 per cent. to the true number of his recoveries. It is plain that if these motives may operate to such a degree in deciding the condition of discharged patients, they may act equally in determining the condition of patients with reference to the question of their discharge. Surely, the system which permits such considerations to affect, consciously or unconsciously, the minds of medical officers of asylums, cannot be too speedily reformed.

L. A. TOURTELLOT, M.D.

UTICA, March 18, 1878.

## New Instrument.

## A NEW RETROFLEXION PESSARY.

By ALFRED L. CARROLL, M.D.

MESSRS. TIEMANN & Co. have made, at my suggestion, a new form of pessary for retroflexion or retroversion, which will, I think, be found to possess peculiar



advantages in certain cases. It is constructed of a steel spring covered with india-rubber, and its "hour-glass" shape, as shown in the accompanying wood-cut, serves a double purpose.

In the first place, the central constriction furnishes the same sort of elastic extension as is given by the spring in Scattergood's pessary; and in the second place, the contraction of the vagina around this central constriction tends to increase the supporting power of the instrument, while conducing to the comfort of the wearer. The material is sufficiently pliable to be bent into the required curve for any given instance, and its elasticity in all directions enables it to yield to a certain extent to the patient's movements without altogether relaxing its support.

NEW BRIGHTON, N. Y., December, 1877.

## ATOMIZERS FOR SPRAYING THE THROAT.

By H. T. HANKS, M.D.,

NEW YORK.

THE set of atomizers represented in the cut are arranged for spraying the throat, and are exceedingly convenient for the general practitioner as well as the specialist. The set consists of three straight tubes of strong glass, seven inches in length, tapering at the distal end to a point with only a small perforation. On the right side of this extremity a second little funnel-like tube is strongly cemented. This is for holding the few drops of the medicament to be used, and may be filled from the bottle or with a pipette.

As may be seen in the cuts, in one instrument the point of the medicine-tube is exactly in front of the air-tube; this is for throwing the spray directly into the throat. In the other two a variation in the direction of the tube gives a corresponding direction to the spray, so that it may be thrown upward with one instrument and downward with the other.

A common Davidson syringe or rubber air-bulb may be attached to the proximal end of the long tube for forcing the air through.

Both tubes, for an inch from the distal end, are flattened on their under surface, and roughened, and serve the purpose of a tongue-depressor.

The advantages claimed for these atomizers are as follows: 1. They are compact. 2. They are inexpensive. 3. Only the neces-

sary quantity of medicine need be used. 4. The throat is surprised, not by a preliminary gush of air, but by the instantaneous application of the remedy directly to the affected parts, before any contraction can take place.

149 LEXINGTON AV.

DR. JAMES BLUNDELL died recently in London, aged 87. As early as 1828 he successfully removed the uterus. In his mode of practice he was somewhat eccentric. He rarely arose before noon, and would receive patients at his home until six in the evening. After dining he would make his calls until midnight, and do his reading by lamp-light in his carriage.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 17 to March 23, 1878.*

VICKERY, R. S., Capt. and Asst. Surgeon. Granted leave of absence for four months, with permission to go beyond sea. S. O. 58, A. G. O., March 18, 1878.

LORING, L. Y., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Arizona, and on expiration of his present leave of absence, ordered before the Army Medical Board, New York City, N. Y., for examination for promotion, and on completion of examination to report by letter to the Surgeon-General. S. O. 59, A. G. O., March 19, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 23, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| March 16, 1878..  | 0             | 5              | 94             | 0                          | 98       | 81          | 0          |
| March 23, 1878... | 0             | 5              | 92             | 3                          | 81       | 82          | 0          |

THE HANGING OF POLISH SURGEONS.—An Austrian paper, in its issue of Feb. 24th, reports the hanging of four Polish surgeons by the Russians at Sophia. The Turks, when they left the city, had no time to remove their wounded, who remained under the care of five surgeons, who trusted in the Geneva Convention to protect them. All five of them were Poles, but four of them were Austrian subjects, and none of them had taken up arms against Russia. Three of them were at once thrown into prison, but the fourth, who was supposed from his name to be a German, was retained a few days to care for the Russian sick. As soon as his nationality was discovered he was sent into prison with his comrades. Soon after all four were taken to a public square and hanged. The fifth, M. Czerwinski, possessed an English passport, and was saved by the intervention of the British consul. He was present at the execution of his friends and brought to Vienna the news of their melancholy death.

OVERCROWDING IN THE PROFESSION.—Not long since a medical gentleman, advertising to dispose of a paying practice, received nearly two hundred applications, while another seeking for an opening was singularly neglected.

LISTER'S METHOD.—One reason why operations are nowadays so successful is probably owing to the fact that before they are commenced the operator very properly says, "Let us spray."

DEATH PREMIUMS BY UNDERTAKERS.—A London undertaker is making base proposals of commissions to the physicians of that city for sending customers to him. He has his eye doubtless on some of the most active members of the Pathological Society. Naturally much indignation is aroused, notwithstanding there is a promise to treat relatives at wholesale rates.



## Original Lectures.

### LECTURES ON TYPHOID FEVER.

By ALONZO CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE IN THE COLLEGE  
OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

(Reported for THE MEDICAL RECORD.)

TYPHOID FEVER—SYNONYMS—MODES OF PROPAGATION  
—LESIONS—SYMPTOMS.

#### LECTURE I.

GENTLEMEN:—Our next topic is typhoid fever. This is the indigenous fever of New England and of this country, except where miasmatic fevers prevail. The disease in various places, and by various authors, has received the following names:—Louis called it "The Typhoid Affection." It has also been called "Abdominal Fever," "Abdominal Typhus," "Enteric Fever," "Ileo-typhus," "Entero-mesenteric Fever," "Nervous Fever," "Autumnal Fever," "Continued Fever," "Pythogenic Fever," "Infantile Remittent Fever," and what has been called "Gastric Fever" is this same disease.

#### MODES OF PROPAGATION.

This disease occurs epidemically or sporadically. It is very common to hear that there is an epidemic of typhoid fever prevailing in some town not far away during the autumn or latter part of summer, and the epidemic commonly continues until cold weather arrives, with an occasional case during the winter.

It is certainly communicable, in one way or another, from one person to another. I could give a large number of illustrations of this fact. Typhoid fever was prevailing in the town of Plymouth. A boy came from Plymouth to Mr. B.'s house, fourteen miles distant, and was there taken sick with typhoid fever. The disease ran its course in about four weeks, but before the boy began to recover, Mr. B., Mrs. B., and their children were taken sick with the same disease. There had been no typhoid fever in the locality in which B. lived for several years. In this manner it spread through a school-district. Nearly all the persons who spent much time in this infected house, assisted in washing the clothes and in taking care of the patients, had the disease. Those who visited the sick by day did not contract it so frequently as those who took care of them at night. About twenty-five persons were attacked in this school-district, and then its spread ceased.

Typhoid fever was prevailing in the town of Richmond. A boy who had been living there, and in a house where the family was afflicted with it, went to his father's house in Canaan, New York. He was taken sick in his father's house with a disease that had exactly the same history as that prevailing in the town of Richmond. There had been no typhoid fever in Canaan for several years, and now a little epidemic spread through the town. I could cite many other instances in which the disease has been carried by a well person from one town to another—illustrations, not of the contagiousness of the disease, but of its communicability perhaps, by the intestinal discharges.

That typhus fever is communicated by the effluvia arising from the sick person I entertain no doubt; but I do entertain a doubt whether typhoid fever is communicated in the same manner.

I will now call your attention to other modes in which this disease seems to be propagated.

I have here a memorandum with reference to propagation of typhoid fever through the medium of milk.

The Medical Inspector of Leeds, England, traced the cause of an epidemic of typhoid fever that broke out in that city to the milk, which, for a certain locality in the city, was obtained at a country farm-house, where a patient was sick with typhoid fever.

Dr. Littlejohn, Medical Inspector of Edinburgh, reports in September, 1877, the occurrence of several cases of typhoid fever in the West End, and believes that they were caused by milk sold from a dairy where a person was sick with the disease.

"At the present time," he says, "over twenty families are suffering severely from the disease, and several cases have terminated fatally."

The next memorandum relates to the clothes of the sick person. Prof. Lebert, of Breslau, reports four cases of typhoid fever occurring among women employed to wash the clothes used by patients sick in the hospital with that disease. He thinks they were probably the victims of carelessness, but I should say really of ignorance. These women lived in different sections of the city.

Here is another memorandum relating to the transmission of the poison by running water:

A miller in Scotland had typhoid fever; his excreta were thrown into a pond which communicated, by means of a ditch, with a small stream below, the water of which was used for drinking by those living along the border. The discharges from a second patient sick with the same fever were thrown into the same pond. A few days after, four men who obtained water from the stream a mile below were attacked with the same disease. There had been no case of typhoid fever in this region for a long time.

In the town where I have my summer home there was obtained the history of an occurrence which is very striking. Twenty young persons went upon a pic-nic excursion. They took their refreshments by the side of a clean, bright-looking stream, and drank of its water. In due time eighteen of these persons were attacked with what was called typhoid fever; several died. The question, where did the poison come from? is one of a good deal of interest. That it did not come from the provision baskets seems certain, because there was no typhoid fever in the town. To my mind, there is but little doubt that it came from the stream; and yet it is not known that a typhoid-fever patient lived upon the stream, or that the excreta of a person sick with typhoid fever were emptied into it. It is altogether likely, however, that privy washings in some way had a communication with the stream: or it may have been that a case of unrecognized typhoid fever occurred at some point along its course, and that the excretions of the patient were thrown into it.

The question whether the excretions from healthy persons can produce typhoid fever, when thrown into a stream in this manner, is not fully settled. But it seems to be improbable.

At Bellevue Hospital, however, it has been occasionally reported, particularly during the dry weather of summer, that a case of typhoid fever has occurred in the wards. I no sooner hear this statement than I make an inspection of the water-closet, and have not yet failed to find that it was exceedingly foul, and that, because of the exhaustion of the reservoir of water with which it is washed out, the basins have been used without cleaning. Now, whether this is what has been called cess-pool fever, or whether it is typhoid

fever, is not, as yet, easy to determine, for observations sufficiently extensive have not been made.

Some years ago a disease broke out in a large school for girls, at Pittsfield, Mass. Dr. Palmer, of Ann Arbor, Mich., and Drs. Ford and Greene, of Pittsfield, after making a pretty thorough examination of the question, reported that they had no doubt that the disease was typhoid fever, and also had no doubt that it arose from foul sewers connected with the building. There was a blind sewer of considerable size, into which the washings of the water closets were emptied, and the accumulation had become so considerable that it had set back sufficiently to contaminate the entire building with its foul exhalations. No person sick with typhoid fever had been in the institution previous to this outbreak.

In my own mind the question is a little unsettled, whether the excretions from healthy persons can produce typhoid fever. My impression, however, is that, when these cases are closely examined in the new light, they will be found to be what is described as cess pool fever.

In the volume of Transactions of the Medical Society of the State of New York, for the year 1877, Dr. Stoddard, of Rochester, makes a report bearing upon the possible diffusion of typhoid fever which is of much importance.

The reporter says that "a certain limited section in the city of Rochester was invaded by typhoid fever, while other parts of the city were exempt from the disease. Examination limited this area to about five acres. In the centre of this district was situated a well, the surroundings of which were extremely filthy. About thirty feet distant was a privy, and the drainage of the vault was towards the well. On opening the well the water was found clear and free from odor or taste. On microscopical examination, nothing unusual was found, and chemical examination disclosed little else of importance beside a considerable amount of sodium chloride. The presence of the sodium chloride pointed to sewage pollution, as proved to be the case. To test the influence of the water upon those using it, a thorough census of all the families in this district was taken; the number of persons using the water ascertained; also the number using water from any other source, and the cases, character of illness, and deaths which had occurred during the previous six months. This was done with the following result:

"Eighty-seven families, consisting of 492 persons, occupy the district; forty families, comprising 219 persons, use water from the well. Among these occurred twenty-three cases of typhoid fever and one of diphtheria during the period taken. Forty-seven families, consisting of 273 persons, did not use the water. Among these occurred only two cases of typhoid fever during the same period. Among those using the water the ratio of sickness was one in every 9.12. Among those not using the water, one in 136.5, or fifteen times as much sickness from zymotic disease among the families using the water. It was ascertained that the first case of typhoid in the district, during the time considered, occurred in the family occupying the premises on which the well was located. The well was immediately closed, and not another new case of typhoid had appeared after two months in this section."

Dr. Stoddard, I suppose, infers that the alvine discharges from this first patient were thrown into the privy mentioned, and by drainage made their way into the well, and that this was the real source of the poison which was disseminated through this district.

#### THE LESIONS OF TYPHOID FEVER.

The most important of the lesions of typhoid fever is found in the blood, and yet we do not know fully in what that lesion consists. We find that as the disease advances, the blood becomes less and less coagulable, so that at the termination of some of the fatal cases it will not coagulate at all. That this loss of coagulability is progressive is learned pretty clearly from some observations made in Bellevue Hospital. For example, a sufficient quantity of blood was drawn in the first week of the disease, to enable us to ascertain its qualities, and it then coagulated like healthy blood; in the second week it coagulated but feebly; and in the third week portions of it did not coagulate at all. These were severe cases.

It is a question whether this change is due to a real diminution in the quantity of fibrin, or whether it is caused by such change in the quality as prevents it from forming fibres.

In addition to the fact that the fibrin seems not to be present in normal quantity, there is a disintegration of the coloring matter of the blood, and the formation of dark pigments, spoken of as occurring in the blood of persons who have remittent or intermittent fever.

By reason of the change which occurs in the blood, it is supposed to lose much of its nutritive power.

Those organs, therefore, which receive a full supply of blood are likely to suffer most. Hence, the spleen becomes enlarged and softened. The softening is so considerable sometimes that the organ is pulsaceous, and can be very easily punctured by the finger. It has a dark color, and the enlargement is usually to two or three times its natural size. The enlargement and softening of the spleen is almost a constant lesion in the fatal cases. In almost all cases of typhoid fever some enlargement can be detected by percussion during life. In the abortive cases the splenic lesion may not be present; and also, in those cases which terminate fatally early, it is not so marked.

The mucous membrane of the stomach naturally receives a full supply of blood. This membrane, therefore, in about one-half of the fatal cases, is found thickened and soft, and more vascular than normal.

Again, the heart receives a free supply of blood. Its functional activity is somewhat increased in this disease, but the organ is not well nourished, and it undergoes softening, so that when removed from the body and laid upon the table, to use M. Louis's expression, it falls together "like a wet rag," in about one-half of the fatal cases. Its color is darker than normal; and the color of the voluntary muscles of the body is also dark.

In many of the fatal cases there is a change occurring in the lungs. The posterior portion, below the level of the great vessels which carry on the circulation, undergoes such a degree of congestion, that the lung tissue becomes really softened. Inasmuch as this change in the lungs produces an appearance somewhat like that seen in the spleen, it is called *splenization*. The lungs become greatly engorged with blood, present a dark appearance, and during life there is evidence of considerable effusion into the bronchial tubes. If typhus can be said to be a disease without lesions, typhoid can be said to be a disease having a great many. The brain does not undergo softening. The liver does not undergo softening, and why not, I am unable to say.

Besides the lesions already mentioned, we have to speak of ulceration of mucous membranes, the most



important of which is the ulceration occurring in the mucous membrane of the intestinal canal. This has been called the Peyerian lesion, but that term does not fully describe it, because the same change occurs upon a smaller scale in the solitary glands. The ulceration of Peyer's patches has also been called the *characteristic lesion* of typhoid fever. There is also a tendency to ulceration in other mucous membranes, in the throat for example, and upon the epiglottis.

What is known as the Peyerian lesion I will now describe. The first thing noticed in these Peyerian patches is an elevation of the mucous membrane; there is not much vascularity in the new material which produces the elevation, hence they are rather pale. This pale, elevated surface, not infrequently, is dotted with black points, which give it an appearance somewhat resembling that of a newly shaven chin; it has been called the shaven-beard appearance. The Peyerian patches first affected are those near the ileo-cæcal valve; the diseased action advances upwards, and in exceptional cases glandular changes may be seen in the duodenum. In these Peyerian patches, and in the mucous membrane that covers them, a new material is deposited, which is partially cellular, and partly granular, and possesses a very low degree of vitality. There is considerable vascularity in the mucous membrane adjacent to the Peyerian patch, but none on elevation itself.

Gradually the new material, which has been deposited in these patches, softens. It softens somewhat irregularly, so that the mucous membrane upon them will be perforated with numerous little openings. These holes become larger and larger, and some of them coalesce. In this manner a considerable portion of the elevated part is removed, and an ulcer with overhanging edges formed. By a continuance of the same degenerative process into granules and oily material, the remainder of the gland structure is removed and the ulcer covers the whole patch. Thus everything is removed which lies inside of the muscular layer of the intestine. When this is completed the process of healing commences, and a delicate membrane is soon formed which covers the entire surface of the ulcer. This membrane grows thicker and thicker until the process of cicatrization is completed. The Peyerian glands are not again formed, nor are the villi reproduced which normally cover the affected patches. There is remaining then simply new fibrous tissue, which assumes the appearance of mucous membrane. Cicatrization occurs first upon the ileo-cæcal valve, or near it, and advances upward. In some instances the reparative process can be seen in the lower part of the small intestine, while higher up the advancing stage of degeneration exists.

Here I must repeat, because it is so apt to be forgotten, that associated with this ulceration of the Peyerian patches there is always *enlargement of the mesenteric glands*. The process, then, is not simple, but one which involves two important parts of the body. With reference to the ulcers, in a very great majority of cases the ulcerative process is arrested at the muscular layer of the intestines. In some cases it goes deeper, and destroys a portion of that coat; and, in about three out of one hundred fatal cases, death is produced by peritonitis following perforation of the intestine.

When perforation occurs, the case almost always terminates fatally; and yet I am pretty confident that I have cured one case in the person of a physician. He had well-marked typhoid fever, was in the third week of the disease, when suddenly pain was developed in the abdomen, and was accompanied by great prostra-

tion. At first the pain was confined to one spot; it soon spread, however, over the entire abdomen; the pulse became rapid and small, the features were pinched, and there was no doubt but that perforation of the bowel had occurred. He was treated pretty vigorously with opium, and finally recovered. I urged him to order in his will, that at his death a post-mortem examination should be made for the purpose of deciding whether or not the diagnosis was correct; but he failed to do so. Perforation of the bowel does not occur in the early stage of the disease. These ulcers may also cause another symptom which sometimes is alarming and serious. They sometimes reach a blood-vessel of considerable size, penetrate its coats, and thus give rise to hemorrhage. The proportion of cases in which hemorrhage from the bowels, more or less severe, occurs in typhoid fever is somewhat greater than that in which perforation takes place. The danger from hemorrhage depends upon the size of the vessel opened; but it is always a grave symptom. Yet several hemorrhages may occur, and no very great amount of exhaustion be produced.

These are the important facts connected with the lesions of typhoid fever, if we do not include among them the eruption. As the eruption is commonly called a symptom, we will refer to it under that head, at which point we have now arrived.

#### SYMPTOMS OF TYPHOID FEVER.

The *invasion* of typhoid fever is almost always rather insidious. A person may rise in the morning feeling as well as usual, but, in the course of the day, he may feel a certain degree of illness not easily described—perhaps has wandering pains about the body and headache; he may have little creeping chills down the back, and has no desire for food. If he examines his pulse, it is found to be somewhat accelerated. This indefinite period is of indefinite duration, and may extend over a day or two. The beginning of the fever is dated from the chill. The chill is not a hard shake, but little chills are produced by putting the hands into cold water, or by cold air falling upon the patient; or without these provocations the little chills may diffuse themselves over the back and body. I have sometimes called these chilly sensations *diluted chills*. In the meantime the temperature of the body is increased, and the pulse has increased in frequency. By the end of the second day there is usually considerable fur on the tongue, and it will be literally of a snow-white color. The patient perhaps has not yet taken to his bed, and he will sit by the fire, even in moderately warm weather, in order to remove this chilly feeling.

These symptoms increase gradually; the patient goes to bed; the pulse gradually increases in frequency from day to day; the temperature of the body becomes a little more elevated each day for about one week. In the meantime the mind usually remains clear. The countenance does not have the dusky hue seen in typhus, and the eyes do not become suffused.

In a certain proportion of cases, on one of the early days of the disease, epistaxis occurs. It is nothing alarming, and may be repeated. The patient gradually loses strength. There is also, pretty early in the disease, tenderness in the epigastrium, and also tenderness in the right iliac region. As the disease advances it is not uncommon to get gurgling in the right iliac region or palpation. Pretty soon the bowels begin to be distended; digestion, intestinal as well as gastric, is incomplete, and the gases accumulate in the intestinal tube. Gradually a tym-

panitic state of the bowels is produced, which is usually quite noticeable.

In some cases the tympanitic distention of the bowels becomes so considerable as to be the cause of suffering and difficulty of breathing.

Pretty early in the disease a diarrhœa begins; and by a diarrhœa is meant two or more liquid stools in twenty-four hours. A diarrhœa is present in the majority of cases, yet it is not essential to the existence of this disease.

Occasionally these evacuations are multiplied to the number of fifteen or twenty in twenty-four hours, but usually there are not more than five to eight. There is a peculiar brownish hue to the discharges, which has been regarded by some as characteristic; but I am not sure about that.

The mind remains clear for a few days, and then, in the graver cases, comes that muttering delirium already considered under the head of typhus fever. With that there is very likely to occur some obtuseness of the senses. There is that same deception of sight noticed in typhus; consequently the patient, when very sick, will pick at the bed-clothes, and the air. At the same time he is usually more or less deaf, so that you will be obliged to speak in a loud tone to make him hear. The delirium usually lasts until the subsidence of the fever. The fur on the tongue, although of a perfectly white color at the beginning, soon becomes yellowish, then brown, and in the second week of the disease the tongue, quite commonly, becomes dry. It may become so dry that its movements will give rise to fissures, as in typhus, and there will also be some collection of sordes upon the teeth, gums, and lips. There is another appearance of the tongue not infrequently seen: the fur, in the second week, may leave it altogether, and the surface will have a smooth shining appearance and a beef-red color. This is what has been called the *beef tongue*, and it is usually dry, but not cracked.

## Original Communications.

### ON THE USE OF ELECTRICITY IN THE TREATMENT OF EPILEPSY.

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THAT electricity is of some value in the treatment of epilepsy I have for a long time believed, and while my observations in this direction do not enable me to assert the exact measure of benefit that we may hope to derive from its use, either alone or in conjunction with approved methods of treatment, they may, perhaps, throw some light on the subject, or, at least, awaken an interest that may lead to a more extended experience as well as to a greater accuracy of observation. I wish to say, first, that in many instances where patients have been submitted to central galvanization—galvanization of the sympathetic, or to general faradization—a profound tendency to drowsiness has been observed.

In some cases sound sleep has for a few moments been induced, with the subject in an upright position while receiving the current through the brain. I recall one patient under treatment by central galvanization who was repeatedly put to sleep within a minute after the beginning of the application.

Accepting the theory that a state of cerebral anemia predisposes to sleep, it is not very difficult to believe that the feeling of drowsiness that so often follows central galvanization, and even general faradization when specially directed to the cervical ganglion, is due to the direct action of the current on the vaso-motor nerves.

It seems hardly necessary at this date to attempt a detailed argument in proof of the very decided action of electricity in any of its manifestations on the arterial circulation.

The well-known effects of direct applications to the sympathetic of the living animal, the results following external applications to the sympathetic, observed through the ophthalmoscope and sphygmograph, and other physiological experiments, have long attested this power of the current.

Among later experiments are those of O. Tschetschott (Abstr. in St. Petersburg. med. Wochenschr., Oct., 1876), and Przewaski (Deutsche med. Wochenschrift, No. 43), who have investigated the action of galvanization of the sympathetic. The latter found that a lowering of temperature of one side of the face occurs upon faradization of the corresponding ganglia, the decline of temperature ranging from 0.5° to 1.75° Cent., according to the length of the application. In the same way he found that faradization of the ulnar nerve is followed by a decrease of from 0.7 to 2.53 Cent. in temperature in the region between the third and fourth fingers supplied by this nerve. Tschetschott's results are similar.\*

I have at this time under treatment a patient who has been under the care of both the late Dr. Peaselee and Dr. Janvrin, and who illustrates, better than any case I ever saw, this control that electricity has over the circulation. For several years this patient has been a great invalid from uterine congestion and displacement, and although now much better of her local troubles, suffers night and day from excessive action of the heart. This activity is altogether functional in character, and in a measure probably dependent on reflex influences, for increase of local pain invariably accelerates the pulse.

It (the pulse) is usually anywhere from 95 to 120, but it frequently rises as high as 160. When at the latter point an application of general faradization invariably reduces the pulse from 40 to 50 and sometimes 60 beats. When no higher than 125 to the minute, a similar application reduces the number some 30, and when the pulse is beating with its usual frequency, say 95 to a minute, the treatment brings it down some 5 to 10 beats. I have tested this case thoroughly and carefully, and find that no local applications of either the galvanic or faradic currents will give as satisfactory results as general faradization. It is needless to say that the relief following such application is considerable, and the tendency to this unusual excitation seems to be growing less and less.

A case that suggested a certain similarity between the action of bromide of potassium and electricity occurred in the person of a lad, mentioned on page 558 in the second edition of our work on Medical and Surgical Electricity. The case was one of petit mal, and for two years the attacks occurred from six to ten times a day. In 10-grain doses, the bromide of potassium reduced the paroxysms to one, two, or three in the twenty-four hours. This improvement continued for a month, when, notwithstanding the increased doses of the bromide, the attack gradually increased in frequency. General faradization with galvanization of

\* Journal of Nervous Diseases, Jan., 1877, No. 1, vol. ii.



the sympathetic were then resorted to, and the results that followed were substantially the same as those obtained from the bromide. The epileptic seizures were reduced to from one to three a day, but after a few weeks they returned with their usual frequency. Subsequently, in two other cases of petit mal that came under my notice, the same similarity in the action of the bromide and electricity was noted. Recovery followed in one of these cases. The patient, a girl aged eleven, first observed the attacks in the early part of 1874, and came under my observation in March, 1875. At first the paroxysms occurred but once or twice a week, but in about six months they began to increase in frequency, and for several months before I saw her she was having them as often as once and sometimes three times a day. The attacks were of short duration, lasting not more than one-half to a minute and a half, and although for the time there was perfect unconsciousness, yet the patient, if standing, as was usually the case, never fell, but if engaged in any occupation, immediately resumed it after the attack had passed away. I used at first the bromide of potassium alone, and pushed it until the face was covered with acne. As in other similar cases she improved very decidedly through several weeks and then rather quickly relapsed. It is proper, however, to state that this relapse may have been due to a neglect, to which she confessed, of regularity in taking the medicine. I then subjected her to central galvanization and general faradization, alternating the methods and allowing a day to intervene between each application. She improved much less rapidly than under the bromide, but the improvement that followed was retained. At the end of three months she was having but one attack in a period varying from ten days to two weeks, and in just eighteen weeks from the beginning of treatment she had her last attack.

Miss W., aged thirty, came to me November 4, 1876, with the following history: In the early part of 1872 she had her first attack in the night, while asleep, but for a year previous had occasions of being in a dazed condition with great confusion of memory.

It is as well to state that there had been all along in her case a strong hysterical element that is frequently aggravated by surrounding influences.

The attacks for a while occurred once in about seven weeks, and further on, instead of a single paroxysm, she would have two and sometimes three in the succeeding twenty-four hours. Later still, the attacks became as frequent as once a month, with one or two longer intervals. I learned that Dr. Geo. J. Fisher, of Sing Sing, had formerly been her physician, and, in answer to a letter of inquiry, he informed me that the patient had been under his care for a long time.

He had given her the bromides of potassium and soda (of each 10 grs.) three times a day. This she had taken for several years, and was still taking when she came under my care. During the month previous she had three attacks, and was feeling certain premonitions, which she described, when I submitted her to the additional treatment of the electricity. I did not feel justified in discontinuing medicine, but in order to give her every chance, substituted for it the following formula of Brown-Séquard:

|                               |         |
|-------------------------------|---------|
| R. Potassæ bicarbonatis.....  | 3 ij.   |
| Ammonii bromidi.....          | 3 viij. |
| Potass. iodidi.....           | 3 iiij. |
| “ bromidi.....                | 5 iiij. |
| Infus. calumbæ (British)..... | ℥j. M.  |

S. Teaspoonful at each meal, and three teaspoonfuls at bedtime.

The patient was exceedingly nervous and despondent, and it was evident that if in no other way electricity might prove of service, as an adjunct to allay irritability and as a general tonic.

I treated her every other day for three months, alternating central galvanization with general faradization. I then gave her an interval of rest for three months, during which time she had an attack, occurring a little more than six months from the last. After a second three months' treatment I allowed another interval of rest, and again treated her for three months. She has not had a second attack, and as eighteen months have passed during which she has had but one seizure, we are hopeful of ultimate results. It is worthy of note that, since the two methods of treatment have been combined, the bromic acne has very considerably lessened, and at times is hardly perceptible.

The last and seemingly the most satisfactory case in its results that I have to relate is as follows: P. M., a pedler, aged thirty-two, entered my office for the purpose of disposing of his wares, March 14, 1877. The man was of respectable appearance and average intelligence, and while conversing with him he had a slight epileptic seizure, and would have fallen from his chair if I had not supported him. When consciousness returned, after what seemed to be a very short period—perhaps not longer than one or two minutes—he seemed to recognize the fact that the attack had been of short duration, and on inquiry gave the following history: He was a native of England, had been in this country two years, and had had the first epileptic attack eighteen months previously. As near as he could remember, the second attack occurred after an interval of six weeks—the third in four weeks; thereafter they gradually increased in frequency, and during the last six months had occurred as often as twice a week. Most of the attacks were light and soon over, as the one that I witnessed, but at least once a month, as he informed me, they were much more severe—the aura being recognizable—with slight lacerations of the tongue.

He had been under no professional care, but had taken a good deal of “salty-tasting medicine,” administered to him by some druggists. He recognized the name of bromide of potassium, and said he thought that was the medicine.

Upon proposing that he submit himself to my treatment (gratuitously of course) he readily consented, and thinking it to be a good and fair opportunity I placed him under central galvanization, with occasional sittings of general faradization.

I treated him every day excepting Sundays (when I was out of town) for six weeks. March 16th, he had one of his severe attacks. March 22d, one of the slighter seizures. March 31st, another slight attack. April 14th, a third attack of a mild character. On April 20th a paroxysm of the more severe type took place, but evidently considerably modified in intensity and duration.

This was the last severe attack that he had. On May 4th he said that during the morning he thought that he had experienced a very slight paroxysm, but it was so transient that he was hardly aware of it. I saw no more of him until the following September, when I accidentally met him on the street. He looked well, said that he had had no more attacks, expressed gratitude for the services rendered, and promised to call at my office, but up to this time he has failed to do so.

In considering these few not altogether unsatisfac-

tory results, a question arises which, in its relation to electricity, has a special significance.

Why do not our therapeutics yield more uniform results? Experience very clearly shows that there is hardly a remedy to the effects of which there is such a varying degree of susceptibility and response as to electricity. To use a strong expression, there are some persons, although perhaps but a small proportion, who were not born to be thus treated. If, while in health, it is given to them, the impression is decidedly unpleasant, or if administered for the relief of pain or nervous irritability, or as a general tonic, it fails in its effects, if it does not aggravate the symptoms. On the other hand, there are those upon whom it leaves a delightful impression, and with whom it seems always to agree, and while much does indeed depend on the knowledge and adroitness with which the applications are given, this difficulty of foretelling the results that may be expected from the use of the current in given cases is largely the result of inherent differences of susceptibility.

Dr. Meredith Clymer, in some most excellent remarks on the treatment of epilepsy, states that he has never heard of a permanent cure of the disease under the use of the bromides, either alone or in combination.

While we may regard this as an extreme statement, the suggestion, that the best results will follow only when we call to our aid every measure that will tend to increase and develop vital power generally, commends itself to all. It is not alone, therefore, on the theory of a special influence on the nerve-centres, or over the cerebral circulation, that we employ electricity as an adjuvant to the bromides, but also because of its undoubted and powerful constitutional tonic effects. In this, therefore, as in various other forms of central disease, I almost always with central galvanization associate and alternate general faradization. In regard to the frequency of the applications I should say, excepting in special cases, the *séances*, with alterations of the currents, might with advantage be repeated every day. Concerning the length of the applications there is so much that might be said, that I can hardly undertake to say it here. The universal tendency is to unduly prolong the treatment until secondary exhaustion follows, and more harm results than good. Dr. Lincoln, of Boston, has written an article on this theme which I would commend, at the same time suggesting that we bear in mind the aphorism, "Much too little than a little too much."\*

I seldom continue the applications of the galvanic current to the brain and sympathetic longer than three minutes, and, as a rule, in from five to ten minutes you accomplish as much by general faradization as is possible. Here as elsewhere, however, individual idiosyncrasies must be studied, and in the details of treatment much is left for the exercise of judgment and experience. In applying the galvanic current to the central nerves, I place one electrode—the negative—over the solar plexus and the positive on the top of the head. The sponge which is over the cranial centre, and on which is pressed a large flat metal electrode, should be very large, covering nearly the whole surface of the head.

Small sponges should not be used. They cause too great concentration of current; pain follows, and far less is accomplished. Having the sponges at either pole, large, soft, and applied with firm pressure, and gradually and without interruptions increasing, and in the same way decreasing the current, it is surprising what tension can be borne without the slightest sense of discomfort or unpleasant after-effects.

## THE OTHER CINCHONA BASES COMPARED WITH QUINIA.

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The question, whether the other cinchona bases can be substituted for quinia, is rapidly becoming an important and interesting one.

The exhaustion of some of the *natural* cinchona plantations is only a question of time, and we will be compelled to rely upon the bark obtained from *cultivated* cinchonas. The latter varieties are not the best, as they contain a lower percentage of quinia and a higher percentage of some of the other bases, especially cinchonidia; hence, in the future, the disproportion between the two alkaloids will be greater than now.

There is every reason to suppose that chemistry will some day discover the process for elaborating an artificial quinia, and make us independent of the cinchona plant. In the European laboratories, today, attempts are being made to produce an artificial article; how soon the problem may be solved no one can, of course, conjecture. We must now depend on the natural resources, and make the most economical use of the alkaloids as they exist.

The recent high price of quinia has prompted many physicians to experiment with the other and cheaper alkaloids with satisfactory results, as we think will be shown in this paper. As an evidence of this trial, now going on, the medical journals, for the past two years, have contained many reports, giving the results of experiments made with quinidia, cinchonidia, and cinchonina. An attempt is here made to collect the scattered testimony, *pro* and *con*, and place the subject before the profession, so that some definite conclusion can be arrived at.

The alkaloids we have to consider are quinidia, cinchonidia, and cinchonina—or, more properly, the sulphates, as the alkaloids are never used in medicine.

Quinidia is isomeric in chemical composition with quinia; it is less bitter than the latter, and its sulphate is more soluble. The sulphate of quinidia is soluble in 130 parts of water at 62° F. and in 16 parts of water at 212° F.; it is almost insoluble in ether. Cinchonidia sulphate has a harsh, bitter taste, and is about as soluble in water as quinia sulphate.

Cinchonina is isomeric with cinchonidia. It is the only one of the three alkaloids mentioned recognized by the U. S. P. The sulphate is soluble in 54 parts of water at 62° F. and in 7 parts of alcohol; it is sparingly soluble in ether.

It is difficult to give an idea of the proportion in which the alkaloids exist in the different varieties of cinchona. No accurate analysis of the pale and yellow barks (the varieties used by manufacturers) has been published; but the red bark has been very carefully analyzed in India—this is the variety cultivated there. We give below analyses of the latter bark, made by the Quinologist to the Madras Government.\*

PARTS PER 1,000 IN CINCHONA SUCCIRUBRA.

|                                             | I.   | II.  | III. | IV.  | Average. |
|---------------------------------------------|------|------|------|------|----------|
| Total alkaloid.....                         | 6.74 | 7.43 | 7.60 | 7.85 | 7.40     |
| " sulphates.....                            | 6.06 | 6.43 | 6.00 | 5.45 | 5.98     |
| Quinia sulphate—obtained crystallized...    | 2.21 | 1.51 | 1.40 | 1.15 | 1.57     |
| Cinchonidia sulphate—obtained crystallized. | 3.85 | 4.92 | 4.60 | 4.30 | 4.42     |

\* Boston Med. and Surg. Journal.

\* Blue Book: East India Cinchona Cultivation. London, 1870.



The figures give the average of four different years' growth; different samples would give very varying results.

It will be noticed that no quinia exists—or only in small amounts—in the red bark. The yellow and pale barks contain more quinia and cinchonidia than the samples analyzed, as above.

Another point to be kept in mind is that the commercial salts are apt to be contaminated, the one with the other.

We are informed by Mr. Chas. Rice, the able Pharmacist of Bellevue Hospital, who has made a study of the chemistry of the cinchona alkaloids, that he has examined a large number of specimens of the sulphates of the alkaloids, made by our best manufacturing chemists, and he found various grades of impurity. Some specimens of quinia sulphate contain from 17 to 85 per cent. of cinchonidia and quinia sulphates; and specimens of quinia sulphate invariably contained large quantities of cinchonidia sulphate. It is impossible to place on the market a chemically pure sulphate of quinia without making the price so high as to place it beyond the reach of the consumer. Repeated recrystallizations are necessary to insure purity, and these repeated manipulations greatly enhance the price.

Thus we see that allowances must be made for the results obtained; chemically pure salts were used by the India Commissions, but the experiments made by Americans were with the commercial salts, which are, in fact, mixed salts.

Dr. E. B. Baxter has experimented on putrefactive solutions, and on the movements of the white blood-globules, with the various cinchona bases. He found that all the alkaloids have the property of preventing putrefaction and the production of bacteria; and also that the movements of the white globules were arrested or impeded by the application of solutions of these bases.\*

If there be any truth in the germ theory of the origin of malarial fevers, these experiments may explain the uniform results obtained by observers from the use of the alkaloids.

The most valuable testimony we have to bring forward is that given by the medical officers under the East Indian Governments. Their experiments were aided by a liberal supply of the salts, and incited by the interest taken in the local cinchona plantations fostered by the Government.

Surgeon Dougall, of the Madras Army, reports† that the results of investigation, made at the suggestion of the Inspector-General of the Medical Department, are as follows: He used the salts in selected, well-marked cases of malarial fever, which were treated indiscriminately in rotation. He treated 108 cases of intermittent; 16 of which were tertian, 2 quartan, and 89 quotidian. Quinia sulphate was used in 39 cases, cinchonidia sulphate in 35 cases, and cinchonia sulphate in 34 cases. The whole 108 cases recovered. In 27 cases no paroxysm occurred after the first dose; in 30 cases the treatment required to be continued 2 days, and in 14 cases 3 days. There was very little difference between the salts in the necessary duration of treatment; but a difference was observed in the doses required. The average dose of quinia varied between 31 and 70 grains; cinchonia, 54 to 76 grains; and cinchonidia, 43 to 90 grains. The conclusion is that quinia is the most powerful, cinchonidia the next, and cinchonia the least active:

but even the latter is energetic, and, in adequate doses, a sure remedy.

Surgeon-Major Hunter reports\* that the Government having ordered that the therapeutic value of cinchonidia be tested, he made trials of it in the House of Correction and County Jail of Bombay with the following results: He treated 55 cases of intermittent, using doses of from 5 to 10 grains. In the majority of cases, 3 days, equivalent to the consumption of 90 grains, in 10 grain doses, three times daily, sufficed to effect a cure. In some cases of a severe type the drug failed, and quinia had to be resorted to. In nearly every case where cinchonidia was used, cinchonism was developed. Nausea and vomiting were frequent symptoms—more frequent than with quinia. Dr. Hunter concludes that 10 grains of cinchonidia would be required to produce the same effect as 3 grains of quinia. (He used the commercial salt.) He says that the drug is greatly inferior in value to quinia. This conclusion does not coincide with the observations of the other Indian surgeons.

Prof. Ewart, of the Calcutta Medical College, states that "quinidia is an excellent anti-periodic in from 20 to 10 grain doses; that it is not inferior to quinia, and is tolerated easily by the stomach. Its action is not accompanied by cinchonism."

"Cinchonidia stands next to quinia in power; it is agreeable to the stomach, and is not followed by cinchonism."

"Cinchonia is doubtless an anti-periodic in doses from 20 to 10 grains. The irritability of the stomach caused by it is the great objection to its ever taking rank as a substitute for either of the preceding alkaloids."†

In the year 1866 large quantities of the various sulphates of the alkaloids were sent by the Home Government to the Government of Madras, to be distributed by the Inspector-General of the Medical Department to the surgeons and other responsible medical men under him. These salts were manufactured by Howard, of England, and were chemically pure. They were to be impartially tested, and the results reported to the Inspector-General. From these reports we obtain most trustworthy testimony.

The first report of the Madras Commission includes the time from the receipt of the samples to March, 1867.‡

Number of cases of malarial fevers reported, 1,145: 376 treated with quinia sulphate, 359 with cinchonidia sulphate, and 410 with cinchonia sulphate. From 8 to 10 grains daily were administered. Out of the total only 4 deaths occurred from pneumonia or diarrhoea complicating. Of the remaining 1,141 cases only 30 failed to recover.§ Judging from these facts the Commission are of opinion that these alkaloids are scarcely inferior, if at all, to quinia—the difference being looked on as one of degree, not of kind.

From the above period (March, 1867, to April, 1868), 2,472 cases were treated with the sulphates of the four alkaloids—quinia, quinia, cinchonidia, and cinchonia—in order to make the comparative trial as perfect as possible.||

Of the 2,472 cases 2,445 were cured, and 27 failed of cure.

\* Lancet, May 15, 1875.

† Indian Annals of Medical Sciences, No. xxv.; and King's Manual of Cinchona Cultivation in India. Calcutta, 1876.

‡ For the reports, which are too long to be here given in full, see Blue Book: East India Cinchona Cultivation (London, 1870), p. 107 *et seq.*

§ The total of failures was 34, not 27 as given in the original report. The error made by the Commission is one of addition.

|| Loc. cit., p. 156 *et seq.*

\* Practitioner, vol. xii., p. 321.

† Edinburgh Med. Journal, vol. xix., p. 193.

Quinia sulphate was used in 846 cases; 840 cured, 6 failed. Time taken to effect a cure, 1 to 7 days. Doses varied from 2 to 20 grains daily.

Quinidia sulphate was used in 664 cases; 660 cured, 4 failed. Time, 1 to 8 days. Doses, 2 to 30 grains daily.

Cinchonidia sulphate, 403 cases; 399 cured, 4 failed. Time, 1 to 4 days. Doses, 2 to 30 grains daily.

Cinchonia sulphate, 559 cases; 546 cured, 13 failed. Time, 1 to 8 days. Doses, 2 to 30 grains daily.

We may tabulate the result thus:

|                     | No. Cases Treated. | Failures. | Ratio of Failures per 1,000 Cases. |
|---------------------|--------------------|-----------|------------------------------------|
| Quinia sulphate...  | 846                | 6         | 7.09                               |
| Quinidia " " " "    | 664                | 4         | 6.02                               |
| Cinchonidia " " " " | 403                | 4         | 9.92                               |
| Cinchonia " " " "   | 559                | 13        | 23.25                              |

The Commission, in their two reports, tabulate, as treated, 3,617 cases, with 61 failures. These cases we have footed up in the following table, so as to give the ratio of failures per 1,000 cases. This, we think, will give the most correct basis to estimate on:

|                     | No. Cases Treated. | Failed. | Ratio of Failures per 1,000 Cases. |
|---------------------|--------------------|---------|------------------------------------|
| Quinia sulphate...  | 846                | 6       | 7.09                               |
| Quinidia " " " "    | 1,040              | 15      | 14.42                              |
| Cinchonidia " " " " | 762                | 17      | 22.30                              |
| Cinchonia " " " "   | 969                | 23      | 23.84                              |

The conclusion expressed by the Commission is as follows:

"In regard to the relative effects of the three alkaloids, and with them chemically pure quinia sulphate, the evidence derived from their use shows that, with the exception of cinchonia sulphate, they in a remarkable degree so closely resemble each other in therapeutical and physiological action, as to render distinctive description of little or no practical utility." "In a large proportion of cases in which they were tried chemically pure quinia sulphate and quinidia and cinchonidia sulphate appeared to indicate nearly equal febrifuge power, and in equal circumstances their use produced almost the same physiological results." "The result confirmed the general opinion expressed by the Commission last year, and likewise conclusively established beyond doubt that ordinary quinia sulphate, chemically pure quinia sulphate, and quinidia sulphate possess equal febrifuge power; that cinchonidia sulphate is only less efficacious, and that cinchonia sulphate, though considerably inferior to the other alkaloids, is notwithstanding a valuable medicinal agent in fever.\*

We will now turn to the testimony as given by physicians in our own country.

The Medical Board of Bellevue Hospital reported in 1876,† after one month's trial of cinchonidia sulphate, almost to the exclusion of quinia, as follows:

The surgical members of the Board declare cinchonidia to be a valuable tonic, and anti-febrile remedy, but find it to be totally inadmissible in severe surgical injuries, especially to the genito-urinary tract and in cases of shock, when it is apt to produce emesis. In such cases cinchonidia had to be abandoned and quinia used. In purely medical affections, however, it

was found to act with promptness and certainty, but sometimes requiring a larger dose than quinia. Since this report was made cinchonidia has been used in Bellevue and Charity Hospitals, replacing quinia to a greater or less extent. As no published reports have been made, the writer has to depend on oral communications.

In April, 1877, a circular letter was issued by the supervising Surgeon-General of the U. S. Marine Hospital Service—Dr. Jno. N. Woodworth—calling the attention of the medical officers of the service "to the accumulating testimony in favor of the employment of quinidia, cinchonidia, and cinchonia sulphates, of which the two first named are believed to be as efficacious as the quinia sulphate." The circular suggests that these salts be accorded a fair trial. No published reports have, as yet, been made, but Dr. Woodworth informs us "that many of the officers of the service have reported favorably upon the action of the quinidia and cinchonidia sulphates, which they have used in place of quinia sulphate." He further states, "that the reports so far received would seem to indicate that in the future the salts of quinidia and cinchonidia will be as extensively used in the service as those of quinia, and possibly more so, should the prices continue as heretofore."

Dr. N. D. V. Howard, of the St. Louis Insane Asylum, states that he has used, in the past seven months, forty ounces of cinchonidia sulphate; he has tabulated 100 cases of intermittent as treated with this salt. The average length of treatment was 4.3 days; average amount taken, 83.7 grains, or 19½ grains daily. In no case did it fail to do all that could have been expected of quinia sulphate. "Observation of its effects has tended to strongly convince me that, when fully as efficient as quinia, it is much more gentle in its action, rarely producing tinnitus aurium, deafness, or other head symptoms."\*

Dr. Love, physician to the St. Louis Dispensary, reports that he has treated 596 cases of malarial diseases with cinchonidia sulphate. It was quite as effectual as quinia, and given in the same doses. Out of the 596 cases there were six cases of failure and fifteen relapses.†

Dr. Pardum, of Illinois, states that he has used cinchonidia sulphate since the early part of 1875 quite extensively in intermittent and remittent, with results, he says, equal to quinia, and with the further advantage that his patients suffer less from cinchonism.‡

Dr. Hobbs tabulates 300 cases of intermittent and remittent, treated, in the past three months, with cinchonidia sulphate, almost to the exclusion of quinia, and out of the whole number has been compelled to resort to other drugs in but five cases. He gives it in doses one-third larger than quinia.§

From many letters received from the South and West we are satisfied that cinchonidia sulphate is fast replacing quinia, and the advanced price of the former salt would lead us to suppose that the demand for it has increased markedly in the past six months.

The writer's personal experience would lead him to favor quinidia sulphate over all the cinchona bases, quinia sulphate only excepted. He has used it in intermittent and pneumonia, and has found it equal to quinia in all respects.

In estimating the value of the reports, given in this paper, it must be borne in mind that the chemically

\* St. Louis Med. Journ., vol. xii., No. 12.

† Ibid.

‡ Chicago Med. Journ. and Examiner, 1876.

§ Louisville Med. News, Nov. 24, 1877.

\* Loc. cit., p. 158.

† New Remedies, vol. v., p. 271.



pure salts were used only by the East India Commissioners, and that the reports made by Americans are the result from the use of commercial salts, which are all more or less contaminated one with the other; hence they were actually mixed salts of the different alkaloids.

The sample of quinidia sulphate, with which the writer was having such good results, proved, on analysis, to contain quinia sulphate in small quantities, and from thirty to forty per cent. of cinchonidia sulphate.

We would deduce from the above reports that the cinchona bases compare with quinia as follows, in the order given:

Quinidia sulphate, when chemically pure, is almost a duplicate of quinia, and may be given in the same doses; it does not cause any more gastric troubles than quinia; even the commercial salt is as efficacious as quinia.

Cinchonidia sulphate is also closely allied to quinia in its effects, and may be given in the same doses; but it is more apt to cause nausea and vomiting, and even purging, than quinia or quinidia. This salt is not recommended in diseases of the genito-urinary system, or after operations on this tract; neither is it to be given when shock exists.

Cinchonia sulphate is a valuable anti-periodic, but must be given in larger dose than the other salts. It is quite apt to produce gastric disturbances and cause purging.

Thus it may be seen that the three alkaloids may be substituted for quinia; but that quinidia and cinchonidia are better substitutes for that salt.

The statement made by a number of observers that some of the salts do not produce cinchonism must be a mistake, as we have noticed this train of symptoms when any of the salts were used. We think that the evidence given above proves that any of the bases may be substituted for quinia, and that even the mixed salts may be used, in many cases, with good results.

The question does not interest the city practitioner from an economic point of view, but it is one of importance to charitable institutions and to the country practitioners who furnish patients with medicines, and who buy in large quantities.

Since the above was written Dr. L. Johnson has reported on the results he has had from the use of cinchonidia sulphate, in his class at the Demilt Dispensary. He has used the salt for years and in a great number of cases. He concludes that it "may be relied upon, in a measure, as a substitute for the sulphate of quinia, whenever, from motives of economy, the practitioner desires such a substitute."\* He calls attention to the fact that Prof. Wm. Pepper, of Philadelphia, reported on the use of the salt as long ago as 1853;† also that Dr. A. P. Turner had good results from its use—one hundred cases of intermittent without failure—which he reported in 1864.‡

**MONUMENT TO CLAUDE BERNARD.**—The Société de Biologie, Paris, has taken the initiative in starting a subscription to erect a fitting monument in memorial of the distinguished services to science of the late Claude Bernard, who was one of the founders of the Society; and a committee for that purpose, composed of prominent men in the leading scientific institutions, has been appointed.

## Progress of Medical Science.

**REFLEX ECCENTRIC, OR IRRITATIVE ALBUMINURIA.**—The induction of albuminuria by the irritation of surgical dressings is a possibility which has hitherto received but little attention from surgeons. Dr. G. Gorrequer Griffith, in a paper read at the Manchester meeting of the British Medical Association, claims to have met with many such cases, and reports one as typical and well illustrating his meaning.

Miss M. had wintered in Egypt on account of tubercular symptoms in her lungs, with best results to her condition. On her return she suffered from a fistula in ano, which was operated upon July 10, 1871. This was dressed in the usual way, but in a few days signs of uræmic poison appeared, and examination showed the urine to be loaded with albumen. Believing that the dressings were main elements in the causation of the symptoms, they were discontinued; the bowels were swept out by compound jalap powder, and the kidneys by diuretics, and in a few days all the symptoms had disappeared. The dressing of the wound was resumed, but return of the symptoms again compelled its abandonment. Cautiously, the dressing was commenced for a third time, was well borne, and the wound healed without further bad symptoms.

There is little doubt, says Dr. Griffith, but that the dressing was the immediate cause of the albuminuria and uræmic symptoms; the irritation caused by its insertion into the wound, producing a stasis of the blood within the kidneys, congestion of the renal circulation, arrest of the urinary secretion, and transudation of the albuminoid elements of the blood. While attending Miss M., the Doctor was greatly exercised over a similar case that had ended fatally, and he feels convinced that had he not recognized the condition, *and the cause of it*, in this case also, a fatal result must have ensued. The congestion of the renal circulatory system, and the arrest of urinary secretion, would result in such structural, organic changes in the kidneys themselves as would be incompatible with life. What was a mere functional derangement, would, if the irritation were persisted in, become developed into organic disorganization, inducing in its turn destructive uræmia, and in this way irritative albuminuria, an element merely temporary, because perfectly remediable, if unrecognized and misunderstood, would be converted into incurable and rapidly fatal albuminuria, dependent on true, permanent kidney disease. — *The Practitioner*, January, 1878.

**PROGRESSIVE PERNICIOUS ANÆMIA.**—Dr. Stephen Mackenzie reports a very characteristic case of progressive pernicious anæmia occurring in a school-boy of ten years, a much younger age than that at which the disease is usually seen. The child came of a healthy family, and no exciting cause could be discovered. No history of shock or fright was elicited. The diminution in the size of the colored blood-corpuscles (microcythæmia) was well marked, but no nucleated corpuscles were detected. Hemorrhagic extravasations into the retina are usually noticed in pernicious anæmia, and were well marked in this case. According to Litten they have no diagnostic value in distinguishing this form of anæmia from others, for he has found retinal hemorrhages in anæmia from uterine cancer and hemorrhage, menorrhagia, and hæmatemesis. Dr. Mackenzie has examined a large number of eyes of persons suffering from cancer, chlorosis, and anæmia from other causes, without finding hemorrhages, but he is not prepared to dispute

\* New York Med. Journ., Feb., 1878.

† Amer. Journ. Med. Sci., Jan., 1853.

‡ Ibid., April, 1864.

Litten's assertion. A point of much interest in this case was the presence of double optic neuritis. Dr. Mackenzie does not recollect optic neuritis being described, though others may have observed it, in connection with pernicious anemia. Many (*Centralblatt f. d. med. Wissensch.*, 1875, s. 675), in an account of a case, speaks of the papilla being deformed, and of the whole retina being cloudy; but it does not appear from his description that there was neuritis. In this case the swelling of the disc was considerable, and the vessels in places were buried in exudation. The veins were very tortuous, as usual in neuritis, but of a pale color, with a broad light streak. The existence of neuritis caused hesitation in diagnosis in some who saw the case, and taken in conjunction with the pain in the head, and the discharge from the ear with deafness, it certainly suggested coarse cerebral disease. But the headache was not so severe as is usual in intracranial tumors or abscess, and when first seen, although optic neuritis was present, there had been no purposeless vomiting. Moreover, the assumption of coarse intracranial disease did not explain the extreme anemia. The occurrence of microcythemia assisted to the diagnosis of progressive pernicious anemia, and the subsequent progress of the case, the vomiting, febrile attacks without assignable cause, the recurring epistaxis, and bleeding of the gums confirmed the diagnosis. Arsenic, which has been so useful in Dr. Byrom Bramwell's hands, was administered in the form of Fowler's solution without any amelioration of the symptoms. The post-mortem appearances were those usually observed. Dr. Wilks, than whom probably no one has had greater experience in this disease, says that usually no coagula are present in the heart. In this case clots were present in both ventricles, but quite peculiar in character. The enlargement of the heart (undoubted, though the organ could not be weighed) remains unexplained. The examination was made by candle-light. The marrow of the rib and clavicle was observed to be red, but has not yet been examined microscopically. The case will be published in detail when a histological examination of the retina and all the organs has been completed.—*The Lancet*, Jan. 5, 1878.

**THE PATHOLOGICAL HISTORY OF CYSTO-PHOSPHATIC DEPOSITS.**—In a paper published in *The Lancet*, Sir Henry Thompson gives an interesting account of the formation of cysto-phosphatic deposits, which he attributes primarily to urinary decomposition. The urine remaining unexpelled from an atonic bladder may, for a long time, retain its normal characteristics, but with the appearance of cystitis, is set up a catalytic action by which decomposition takes place. The urea is broken up and ammonia is formed; the phosphates of lime and magnesia decompose, their earthy bases being precipitated, and from these actions are produced the ammoniac-magnesian, or "triple" phosphate, as well as some bibasic salts. Associated with these products are found mucus in abnormal quantity, and pus. At first the bladder may be able to expel these products, but soon abrasions occur on the mucous membrane, and the exuded lymph becomes loaded with phosphates, forming a tenacious mixture not easily removed. Phosphates are deposited upon this, and when the aggregation assumes a certain size, it is detached, falls into the bladder as a concretion; the process goes on at the original point and may be repeated again and again. These phenomena explain the reason why cysto-phosphatic deposits in some cases obstinately persist and recur. So long as the mucous lining of the bladder retains its polish, so long as no

serious denudation of epithelium takes place, no precipitated phosphates, as a rule, will be detained in the interior, provided the organ can empty itself or can be emptied artificially. The following are the conclusions Sir Henry has formulated in relation to this subject:

1. "That, in its healthy condition, the bladder rarely, if ever, retains, but on the contrary, expels all phosphatic deposits.

2. "That when the bladder is not healthy, but affected by chronic inflammation, provided it is not considerable nor very prolonged in duration, the power of expulsion is still almost as great as in the healthy organ.

3. "That there is a diseased condition of the inner coat of the bladder, in which the ability to expel phosphatic deposits is almost lost, and in which the formation of concretions—and if these are neglected of stone—is certain to occur."—*The Lancet*, Jan. 19, 1878.

**RECTAL ALIMENTATION.**—Feeding per rectum is not a novelty in medical practice, but it has only within a few years received the attention it deserves. Prof. Austin Flint cites some cases which not only illustrate the tolerance with which the rectum receives nutritive enemata, but prove that the body may be well nourished by this means alone for an indefinite period. In one case rectal alimentation was wholly relied upon for a year and three months, and subsequently much of the time for five years; in other cases it was continued for less time, but with equally successful results, the patients frequently increasing markedly in weight. This treatment is indicated when the passage of food into or from the stomach is obstructed, as in disease of the œsophagus, or of the cardiac or pyloric extremity of the stomach; when absolute rest of the organ is required, as in gastric ulcer, hæmatemesis, acute gastritis; in that functional affection of the stomach characterized by almost complete intolerance of food, which is occasionally met with in young women; in those cases of invincible anorexia, occurring in middle or advanced life, which probably depend upon degeneration of the gastro-intestinal tubules; when, owing to blunted mental perceptions, or to coma, an adequate amount of food cannot be introduced into the stomach. Whenever, therefore, the quantity of food injected and assimilated is insufficient to support life, rectal alimentation is indicated. Prof. Flint's clinical experience is opposed to the assumption of Leube, who supposes that milk, eggs, meat-broths, are unsuited to rectal alimentation. Dr. Flint has found that the rectum digests and assimilates these articles without difficulty, but he does not deny that the addition of such substances as pepsin, pancreatin, hydrochloric acid, etc., may hasten and improve rectal as well as stomach digestion. As a rule, the injections have not been carried above the rectum, though, by means of a flexible tube, they may be easily introduced into the colon. The quantity should not be large, from three to six ounces being the average size of the enemata, but they may be frequently repeated. As soon as the large intestine becomes cleared out, and the bowel becomes accustomed to the injection, the food is retained without trouble, no evacuation taking place for days or weeks. These occasions no inconvenience, and, indeed, the patients are so well satisfied with the process that many are loath to return to ordinary feeding per os. The injection should be tepid, and directly after administration, firm pressure should be made, by means of a sponge or napkin, upon the anus until the desire for their expulsion passes away.—*The American Practitioner*, January, 1878.



# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## NATIONAL QUARANTINE REGULATIONS.

FROM present appearances the chances for the establishment of a national system of quarantine seem to be exceedingly good. Already a bill having such an end in view has passed the House of Representatives, and there does not seem to be much doubt but that it will receive equal indorsement by the Senate. Every one who has given much attention to quarantine matters must have been struck with the necessity for some system which, while it was competent to protect the country as a whole, should not interfere with special regulations at particular ports. How this could be accomplished to the best interests of all, has been a question the practical solution of which has been attended with much perplexity. It would seem, however, that all the principal difficulties have been overcome in the bill referred to, and that a wise conservatism has recognized apparently conflicting interests, and thus secured harmonious and systematic action. In its present shape, the bill provides that no vessel or vehicle coming from any foreign port or country where any contagious or infectious disease may exist, or carrying persons, merchandise, or animals affected with infectious disease, shall enter the United States contrary to the quarantine laws of any State; that consular officers or other representatives of the United States at or near such port, shall immediately inform the Surgeon-General of the Marine Hospital service thereof, and the Health Officer of the ports of destination of such vessels in the United States, and they shall make weekly reports of the sanitary condition of the respective ports at which they are stationed; and the said Surgeon-General shall frame all needful regulations for that purpose, subject to the approval of the President; but such regulations shall not conflict with sanitary or quarantine laws of any State or municipality. Officers of the Marine Hospital service

and customs officers shall aid in the enforcement of these regulations, without additional compensation. That the Surgeon-General immediately notify the proper State and municipal or United States officers at the threatened port of destination of any infected vessel, and shall make weekly abstracts of the consular sanitary reports to be sent to sanitary and customs officers of the United States; that State or municipal quarantine officers shall be authorized to act as officers of the national quarantine system, but without pay from the United States; at all other ports officers of the Marine Hospital service shall enforce the quarantine regulations under this act; provided, that there shall be no interference in any manner with any quarantine laws or regulations as they now exist, or may hereafter be adopted under State laws.

It will thus be seen that no attempt is made to enforce absurd regulations, but, on the contrary, there is a simplicity about the whole system which cannot fail to impress every one, and to give a reasonable belief of its practicability. The general principle of protection, and the general necessity of its enforcement are the main conditions insisted upon, while much of the detail is very properly left to the discretion of the officers of the ports at which an infected vessel may arrive.

Within the past few years we have made many improvements in our quarantine system. The experience in this port has shown it to be possible to establish a thorough protection against the spread of contagious diseases at the same time that mercantile interests are not interfered with. In fact, so radical has been the change of public sentiment due to the enlightened and liberal administration of our Health Officer, that opposition has given way to support, and complaints have given place to encouragement. As we have on former occasions asserted, this system is for all practical purposes as near perfection as it can be, and after a successful trial of "over six years in one of the largest ports of entry in the United States," it is probably the best model upon which to base the principle of management of the more comprehensive plan. The centralization of authority in the Marine Hospital service is not only eminently proper, but is decidedly the best that can be done to insure for the present at least a reasonably perfect success for the scheme. By and by it may be necessary to enlarge the functions of the office to create possibly a central bureau with requisite authority for supervision and for the modification of plans and the division of responsibilities which a still further elaboration of the plan may make necessary. We say this much, of course, merely by way of anticipation, inasmuch as the bill has not yet passed the Senate, but there appears to be such a small doubt concerning such passage that there is not much danger of being too sanguine regarding it, or too hopeful of the ultimate good which may be accomplished.

## THE SPONTANEOUS GENERATION CONTROVERSY.

THE "reply" of Dr. Bastian appears to have generated much spontaneous wrath, if we may judge from the tone of Professor Tyndall's cholerick rejoinder. Professor Tyndall first attacks what he terms the new formula of Bastian's, that "it is not the dead atmospheric particles themselves that are kindled into life; it is, on the contrary, the dead particles of the liquid that are kindled into life by the dead particles of the air."

"The former, we are told, is an absurd idea; while the latter, I suppose, is thought to be a sweetly reasonable one."

Tyndall ridicules this "frictionless way" of originating a new birth of living particles, and next directs attention to the doubt thrown out by Bastian, that bacteria originate from spores. On this point Tyndall states that the smallest organisms revealed by the microscope are grouped under the common name of bacteria, while they differ from each other both in size and form, some being globular, some staff-like (whence the name), some motile, and others still. In the staff-like bacteria, the usual mode of reproduction and multiplication is bisective. The staff is nipped in its centre, the nip deepens, and finally the bacterium is divided into two halves, which lengthen and are bisected in their turn.

According to a calculation of Dr. Burdon Sanderson, this process enables seventeen millions of bacteria to proceed in twenty-four hours from a single ancestor.

In cases, however, of certain large bacteria, which, because they are large, have been more thoroughly examined than the others, the rods or filaments are observed to resolve themselves into spores. This resolution was proved by Cohn and Koch, and is conspicuously illustrated by the bacillus of hay, and the bacillus anthracis of splenic fever.

"Both these organisms propagate themselves by spores, which may be rendered as plain to the eye of the microscopist as peas in a pod." In confirmation of this, Professor Tyndall states that he has himself seen the spores of bacillus anthracis which had been cultivated by Mr. Ewart, of University College.

Returning once more to the now historic experiment with the bottled infusions, which Bastian asserted merely proved facts foreign to the points at issue, Tyndall says: let the reader place before his mind one of the sealed chambers before described, and figure its series of test-tubes charged with infusions, which, exposed to optically pure air, have remained sweet and clear for six months in a warm room. Now, suppose the door to be opened and a bunch of dry hay to be shaken in the moteless air of the chamber. A beam thrown through that air shows it to be charged with dust. Forty hours after this dust has been let loose, the infusions are found to have a fatty corrugated scum upon their surfaces—it may be with a clear or a turbid

liquid underneath." When this scum is examined, it is found to consist of countless multitudes of the hay bacillus matted together. What are we to conclude? Whence have these organisms come? The only interpretation is that the organisms *have come* from the germs of bacillus subtilis which have been shaken from the hay.

He then derides Bastian's interpretation that the dust of the hay is dead organic matter in a state of motor decay, saying: "This dead dust falls into the infusions, and although it does not commit the absurdity of becoming itself alive, it does go through the perfectly reasonable process of making the dead infusion alive." The value of such logic has been, he observes, duly appraised by the highest scientific authorities; its survival among the general public cannot last long.

Dr. Bastian, it will be remembered, asked, "What present warrant is there for supposing that a naked or almost naked speck of protoplasm can withstand four, six, or eight hours of boiling?" To which he answered, "None." On this point Tyndall first takes exception to the term naked protoplasm, and styles it "a creature of the respondent's fancy put into words," and further states that "not as a probable guess," "an assumption," or a "wild hypothesis," but as an *undoubted fact*, that the spores of the hay bacillus, when thoroughly desiccated by age, have, in special cases, withstood the ordeal mentioned. But, with a knowledge that they are germs, they can be destroyed by five minutes' boiling or less, by the following process: An infusion infected with the most powerfully resisting germs, but otherwise protected against the floating matter of the air, is gradually raised to the boiling-point. Such germs as have reached the soft or plastic state, immediately preceding their development into bacteria, are thus destroyed. The infusion is then placed aside in a warm room for ten to twelve hours. If for twenty-four hours, we might have the liquid charged with well-developed bacteria. To anticipate this at the end of ten to twelve hours, we raise the infusions a second time to the boiling temperature, which, as before, destroys all germs approaching their point of final development. This infusion is again put aside for ten to twelve hours, and the process of heating repeated. We thus kill the germs in the order of their resistance, and finally kill the last of them.

Finally, Professor Tyndall accuses "the respondent" of writing "a reply" on side issues only, and complains that no explanation is given why the guarded infusions remain free from living organisms. The evidence, observes Tyndall, against Dr. Bastian is immense, and the witnesses might be counted by the million, for every tin of preserved meat is an instance in which his instructions have been carried out, and which disprove his statements.

In conclusion, Tyndall says: "The present condition of this question is such that no medical man, seeking clearly to realize and effectually to remove the



causes of epidemic disease, need have his mind troubled by a doubt as to the derivation of those organisms to which modern physiology, with ever-increasing emphasis, assigns such momentous functions. Clearly assured that they are not spontaneous generations, his efforts will be directed to the discovery and the destruction of the germinal matter from which they spring. For their sakes I have spared no pains to render my demonstrations so clear that no amount of verbal 'effluence' will be able to obscure them. This accepted, the controversy comes to a natural end, for neither honor to the individual, nor usefulness to the public, is likely to accrue from its continuance, and life is too serious to be spent in hunting down in detail the protean errors of Dr. Bastian."

#### THE NEW MEDICAL BILL.

THE new medical bill, the text of which we reproduce in another column, is now before the State Senate Committee of Public Health. The question of medical legislation in this State is one that admits of careful consideration from many points of view. The present laws governing the practice of medicine are practically inoperative, and the first point that should demand the attention of the Legislature, is the advisability of any legislation whatsoever on the subject. In other words, is it conducive to the welfare of the people that the practice of medicine should be confined to those specially qualified for the purpose, or is it better that the lists should be open to all, whether qualified or not? The latter is practically the case at the present time. We leave for the Legislature to decide whether this is as it should be. America is perhaps the only civilized nation in the world in which such laxity is, as a rule, admitted. We make a few exceptions as regards some of the States in which laws of this character are in successful operation, but so much the more is it to be regretted that the Empire State should not be included in the list. It is true that safeguards are thrown about the practice of law, none being admitted to the courts, except they be graduates in law, and shall have passed an examination before a board appointed for the purpose. Are matters involving life and health of less consequence than those of liberty or property? As regards this particular bill, the requirements seem to be judicious and capable of enforcement. Although not ideally perfect in its provisions, it comes nearer that point than any previous legislation. The present state of affairs, far from protecting the people, really places a premium upon quackery, not only by offering facilities for the entrance of incompetent men into the profession, but by giving such fraudulent practices the stamp of legal authority.

DR. T. GALLARD, OF PARIS, FRANCE.—At a regular meeting of the New York Academy of Medicine, held March 7th, Dr. T. Gallard, of Paris, was elected corresponding member.

## Reviews and Notices of Books.

THE ACTION OF MEDICINES. By ISAAC OTT, A.M., M.D., formerly Demonstrator of Experimental Physiology, University of Pennsylvania. Philadelphia, 1878. Lindsay & Blakiston. Pp. 168.

THE author's reputation as an experimental physiologist leads us to expect from him a well-written book. In some respects the volume before us meets with our hearty approval; in others we are disappointed.

The first part is decidedly the best; and three chapters upon the action of certain remedies upon the vascular and nervous systems, and the conduction of experiments upon animals, supply a place in the medical literature of the English language which has only been partially filled by the works of Wood. We cannot say as much for the last part of the work before us. It is but fragmentary, hastily written, and contains certain errors which we trust the author will correct in a subsequent edition. On page 113 he says: "In mitral obstruction the blood regurgitates into the pulmonary veins, the lungs become gorged with blood, aëration is imperfect, which causes dyspnoea. This obstruction causes the *right ventricle to have commencing hypertrophy*. If now the tricuspid becomes affected, then the veins are involved, and dropsy results. *Here digitalis does good by increasing the contractile power of the right ventricle.*" At a point a few lines below, the author says: "In disease of the *right side* of the heart, digitalis is of no avail." But one page is devoted to the action of strychnia, while four are given to the explanation of Ohm's law. In spite of these defects the book shows the author's familiarity with the subject he has chosen; and will, we trust, stimulate the profession to a more exact study of the effects of remedies.

1. MODERN MEDICAL THERAPEUTICS: A Compendium of Recent Formulæ and Specific Therapeutical Directions, etc. By GEO. H. NAPHEYS, A.M., M.D. Fifth edition, enlarged and revised. Philadelphia, 1878.
2. MODERN SURGICAL THERAPEUTICS: A Compendium of Current Formulæ, Approved Dressings, and Specific Methods for the Treatment of Surgical Diseases and Injuries. By GEO. H. NAPHEYS, A.M., M.D. Philadelphia: D. G. Brinton, 115 S. Seventh St., 1878.

THESE two works may be looked upon as companions to each other, inasmuch as the surgical volume grows out of the original medical therapeutics. The latter is a work very favorably known to the profession as a hand-book of actual medical practice, and the Surgical Therapeutics is upon the same model. The latter volume treats of the ordinary surgical diseases from a medical standpoint, and abounds in practical hints and suggestive prescriptions. Neither of the works can be looked upon as text books, but merely as condensed manuals of practice, presenting facts from the experience of eminent practitioners here and abroad, with such comments only as are necessary for a proper appreciation of therapeutical points. No one in active practice can consult the pages of either volume without receiving some useful and suggestive hint, or without having his memory refreshed concerning some old and almost forgotten remedy.

MEDICAL ANNIVERSARY.—The one hundred and fifth anniversary of the Medical Society of London was celebrated on the eighth ultimo, with a dinner and addresses by Dr. Risdon Bennett and Mr. John Guy, of the College of Surgeons.

## Reports of Hospitals.

### NEW YORK CITY IDIOT ASYLUM, RANDALL'S ISLAND.

#### REFLEX PHENOMENA ASSOCIATED WITH GENITAL IRRITATION.

On Saturday, March 9th, Prof. Lewis A. Sayre, having had a steamboat placed at his disposal, by the Commissioners of Charities and Correction, for the purpose, proceeded to Randall's Island, accompanied by Commissioners Isaac H. Bailey and Townsend Cox, together with a number of medical experts and friends to whom invitations had been issued. When the party arrived at the island, they were met at the landing by Dr. J. C. Howard, physician in charge, and escorted to the Idiot Asylum, where they first had an opportunity of listening to some really excellent singing by about fifty of the children, who presented an appearance of cleanliness, neatness, and comparative intelligence which Dr. Sayre could not but remark was in most marked contrast to what was the case ten or twelve years ago.

Then passing to a private apartment, Dr. Sayre stated to the company present that he had come to visit the asylum in obedience to the request of the Commissioners.

In reply he stated that he had expressed his willingness to accede to the request, and, accordingly, had suggested the present date; while, with the permission of the Commissioners, he had invited the following gentlemen to accompany him: Drs. Meredith Clymer, E. C. Seguin, Fessenden N. Otis, A. E. Macdonald, Allan McLane Hamilton, George F. Shradly, B. F. Dawson, P. Brynberg Porter, Charles H. II. Sayre, and Cuttichach, of New York; Green, of Elizabeth, New Jersey; C. Van Bibber, of Baltimore; Nassau, of Burlington, Iowa; and Crenshaw, of Cadiz, Kentucky. Of this number, Drs. Clymer, Seguin, Shradly, and Dawson were unable to be present.

Dr. Sayre remarked that all mental improvement in the class of children found here must, of course, depend on the teaching which they received in the institution, but he had found that, in many such children, partial paralysis, lack of power of co-ordination, and apparent idiocy were dependent, in great part at least, upon some irritation of the genital organs. In males this was due to a constriction around the glans penis, producing continual priapism, the result of which was wasting and exhaustion of the nervous system sufficient to produce more or less paralysis, and, in some instances, complete loss of speech and of vision. In girls, on the other hand, much the same results were produced by an irritation of the clitoris, which was not uncommon. Therefore, notwithstanding however admirable might be their general management, a cure could not be hoped for in such cases until this source of irritation had been removed. Its action was precisely analogous to that of a thorn or other foreign body penetrating the tissues, where it was useless to expect relief as long as such foreign substance remained to keep up an irritation.

He was happy to state that in quite a number of instances he had been able to effect a proper cure simply by removing this source of irritation, and it was rather a curious circumstance that in the very last number of one of the journals, the *American Medical Bi-Weekly*, such a case had been reported by Dr. William N. Horne, of Yorktown, Indiana, a gentleman entirely

unknown to him. On January 1, 1878, a male infant ten months old had been brought to him for treatment. The mother stated that for three or four weeks it had been losing the use of both upper and lower extremities, and had ceased to notice anything, while it had previously been a very lively child. Upon a careful examination of the infant, the doctor detected a lack of intelligence in the countenance, and great flaccidity of all the muscles, partial paralysis of the arms, and complete paralysis of the lower extremities. The prepuce was found to be preternaturally elongated and contracted, and the next day circumcision was performed. The attachments of the prepuce, which was closely adherent, having been torn loose, a quantity of smegma was disclosed behind the corona, and after this was removed, the frænum (which was much shortened), was cut. On the third of January the mother reported the child more like it used to be, putting its hand up to the breast and playing with it, a thing it had not done for some weeks. After this it rapidly recovered, and in two weeks was a well, stout child, able to stand by a chair, and with perfect control of all its muscles—no medicine whatever having been used in the case.

At the conclusion of Dr. Sayre's remarks, the party set out on a tour through the various buildings and wards of the institution. The first patient examined was a little girl, whose clitoris was found to be in a state of hypertrophy and irritation. Very little information could be obtained from the attendants in regard to her history or condition, but she lay with her legs crossed and seemed quite incapable of speaking coherently. Dr. Sayre recommended that she should be operated upon by the physician in charge.

In the second case, that of a young woman, there was also considerable irritation about the clitoris, and when sudden pressure was made upon it a marked spasm of the lower extremities, and notably of the toes, was instantaneously produced.

In the third case there did not seem to be any trouble about the genitals.

In the fourth patient, who was also nearly grown up, there was such rigidity of the tendons that it was almost impossible to produce flexion of the feet. In connection with this case, Dr. Sayre related that of a boy, thirteen years of age, who had recently been sent to him for treatment for club-foot, and who, being supposed to be hopelessly idiotic, was about to be sent to the training-school at Syracuse. On making an examination, he became convinced that the whole trouble was probably due to the condition of the penis, and having operated upon the prepuce, soon had the satisfaction of seeing the lad perfectly restored. He is now at a regular boarding-school, where he compares very favorably in mental and bodily vigor with any of the other boys in attendance there.

The fifth patient examined was a little girl whose clitoris was considerably inflamed, and here Dr. Sayre called particular attention to a white point surmounting it, which, he said, was composed of hypertrophied nervous tissue, and which acted like an electrical battery upon the lower extremities when it was irritated by the hand or otherwise. The child having been securely held by assistants, the clitoris was clipped with a pair of scissors, and the parts dressed with styptic cotton, the latter being held in position by a diaper. Dr. Howard was then requested to have her shoes and stockings put on, and a piece of lath, about a foot in length, secured between the feet, in order to prevent the irritating effect of the thighs in contact with the wounded surface. The portion of the clitoris thus removed was given to Dr. Hamilton for micro-



scopic examination, and Dr. Sayre stated that not infrequently there were no blood-vessels whatever found in this tissue.

The sixth case, a child of about the same age, presented a very marked contrast to the one just mentioned. Here there was no engorgement or enlargement about the clitoris, and the lower extremities were noticed to lie in a perfectly natural and easy position, no sensibility and no spasm being caused by pressure upon it.

In the seventh and eighth cases there was nothing abnormal about the genitals; so that there seemed to be no reason whatever for regarding the idiocy as attributable in any measure to the condition of these organs.

In the ninth patient, who was quite a pretty and intelligent-looking little girl of eight years, but who was evidently silly, distinct spasm of the lower extremities was produced by touching the clitoris.

In the tenth case there was slight, and in the eleventh (a girl fifteen years old), there was excessive sensibility.

There was nothing wrong noticeable about the twelfth, thirteenth, and fourteenth cases, except that there was a little redness seen in the thirteenth; but there was no crossing of the legs or other evidence of marked disturbance of the muscular or nervous systems.

The party now passed into the boys' wards, and here it was found that quite a large proportion of the children were of Jewish parentage, and had already been circumcised. While, however, circumcision had had no effect in averting idiocy in these cases, it was certainly worthy of note, as Dr. Sayre remarked, that none of the boys on whom the operation had been performed were suffering from want of co-ordination or any degree of paralysis; while some of those who had not been circumcised were more or less affected in this manner.

The first boy examined (the fifteenth case in regular order) was a little fellow of four years, about whose genitals there was found no source of trouble.

In the sixteenth case, however, a boy of eight, it was found that although the glans penis could be perfectly uncovered, there was behind it a constriction or girdle which nearly produced a paraphimosis. With the assistance of a grooved director passed up under the prepuce, this girdle, as well as the prepuce, was freely divided with a sharp-pointed bistoury. Styptic cotton was first applied, and then a piece of soft rag, which became adherent by means of the blood from the wound, after which a "bird's nest," or ring of twisted rags, through which a cold-water dressing could be laid over the head of the penis, was placed around the organ to protect it. Finally, in order to keep the whole in place, and to prevent the child from interfering with the dressing, a diaper was pinned on.

In the next thirteen cases examined there was no constriction, but in the fourteenth (the thirtieth of the series) the constriction was found to be very similar to that of the one just mentioned; and the same operation was performed, the same dressing being also applied.

Then followed two cases in which there was nothing wrong.

The thirty-third case was that of a lad thirteen years old, in whom there was an elongated and adherent prepuce, with a circle of hardened smegma just behind the corona.

In the next seven patients examined, there was no source of irritation about the penis.

The forty-first case was that of a boy upon whom some one had evidently operated previously; but, unfortunately, a redundancy of prepuce had been left, and this was now quite firmly adherent at the posterior portion of the glans. This was slit up and detached, and the frænum ruptured, after which the same dressing was applied as in the other cases.

In the forty-second case, there was no cause for interference; but in the forty-third there was found agglutination, but not adhesion proper, of the prepuce. There was no hardened smegma behind the corona.

The forty-fourth case was the most interesting one that had been seen up to that time, and was the only one as yet in which Dr. Sayre thought there was a chance of effecting much amelioration in the condition of the patient by means of operation. It was a boy, 7½ years old, who was very unsteady in his gait, and constantly falling down when he was walking or running. It was considered a fair sample of the class of cases in which the most relief can be afforded, and which call for circumcision proper in order to effect this. The prepuce was greatly elongated, and the orifice through which the urine had to pass exceedingly minute. The prepuce was snipped off with the scissors and turned back over the glans, and then the frænum having been torn with the fingers, the usual dressing was applied. In answer to a question put by one of the gentlemen present, as to how often this dressing should be changed, Dr. Sayre replied that it should not be changed at all, but allowed to remain about the parts until it dropped off. The only portion of it that was to be touched at all, was the rag over the glans, which was to be kept constantly wet for the first few hours.

The next case presented no point of interest in connection with the subject under investigation, but in the forty-sixth there was found a constricting girdle behind the glans, though there was no great redundancy of the prepuce. With the aid of a grooved director this band was thoroughly divided and the constriction relieved.

In the forty-seventh patient, an adult, there was found a certain amount of constriction, accompanied with a very extensive accumulation of smegma, and more or less priapism.

In the next six cases examined there was nothing abnormal about the genitals, except that the last of these patients (Case 53), had an exceedingly short frænum, causing marked deformity; and when this had been ruptured, the penis at once assumed a natural position.

The party now proceeded to the wards devoted to the most aggravated cases, and here the first patient examined in the male department was the well-known idiot, John Rouse (Case 54), who has such a striking resemblance to the so-called "Aztec children" who were on public exhibition a few years ago, and portraits of whom may be seen in Dalton's Physiology. Neither in him nor in the two succeeding cases, who were also grown up, was there any trouble about the genitals, and Dr. Sayre here made the remark that if they were only as well developed in their brains as they were in these parts, they certainly would not be inmates of an idiot asylum.

The next case (Number 57) was one of four (Number 44 being the first of these) which presented the greatest interest of the whole series. It was that of a boy seven or eight years old, who, according to the account given by the attendants, slept very poorly at night, and was constantly falling down when exercising. He was unable to talk, and always had to be fed; while his penis was in a state of half-erection

all the time. The prepuce was found to be elongated and adherent, and it was slit up upon a grooved director, after which the frenum was ruptured, and the usual dressing applied.

In the next three cases there was no cause for interference, while the fourth (Case 61) was the third of the four cases of greatest interest above alluded to. This patient was a boy of ten years, who suffered from constant priapism, and whose legs were covered with bruises caused by his continual falls. It was always necessary to feed him, and it was stated that he had never spoken a word in his life. He was operated upon in the same manner as Case 57.

There was nothing abnormal about the genitals of the next two cases examined.

The last ward visited was that occupied by females corresponding in mental condition to John Rouse and his fellows. There was no source of irritation about the genitals of the first patient examined, but the second, a little girl (Case 65), made the fourth of the interesting cases previously mentioned. It was found that she was in the habit of constantly slapping her head with the hands, that she usually lay with her legs crossed, and that both her arms and legs were black and blue on account of the numerous falls which she had had. She had never talked, and always had to be fed. On making an examination of the genitals, it was ascertained that the clitoris was hypertrophied and greatly irritated, and that when pressure was made upon it, instantaneous spasm of the muscles of the thighs and legs was produced, the effect being, apparently, very much like that of an electric shock passing down through the lower extremities. The upper part of the clitoris was clipped with the scissors in the same manner, and the same dressing applied as in Case Number 5.

The sixty-sixth patient examined was a grown-up girl, who gave evidence of very amorous tendencies, but in this case all sensibility of the clitoris had been destroyed by the constant handling to which the parts had been subjected. Dr. Sayre expressed it as decidedly his opinion that masturbation was frequently caused by the pre-existing irritation about the genitals, and that the latter was not ordinarily due to masturbation, as held by some authorities.

The sixty-seventh case presented no point of interest.

At the conclusion of the examination of the patients, Dr. Sayre expressed his obligations to the Commissioners of Charities and Correction for their courtesy on this occasion, and his deep appreciation of their desire to thus aid in the investigation of scientific truth. Even should no practical results ensue from this visit to the Idiot Asylum, they would at least have the consciousness of having done what they could for the advancement of medical science and the benefit of suffering humanity. Finally, he wished to offer his particular and personal acknowledgments to Commissioner Cox, through whose instrumentality the investigation had been brought about. The case of club-foot combined with idiocy, to which he had previously alluded, had been sent to him by Mr. Cox, and it was owing to the happy results obtained in that instance by the surgical removal of the source of irritation, that the opportunity for the present examination had been afforded.

Drs. Otis and Macdonald both expressed the opinion that enough had already been shown by this series of observations to warrant the recommendation that in all idiot and lunatic asylums, circumcision should be performed in all cases where there is an elongated or constricted prepuce, as a preliminary to any treatment in the institution.

A careful record of the cases operated upon will be kept by Dr. Howard, and the results made known at some future time.

## Correspondence.

### ULTIMATE RESULTS OF EXCISION OF HIP-JOINT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Dr. Sayre took occasion to say publicly at a meeting of the Medical Journal Association that eight cases upon which he had operated "had been discharged from the Hospital for the Ruptured and Crippled as incurable," and that under his hands seven of these "had made a good recovery."

Under other circumstances this attack might, with propriety, have been passed unnoticed, but in this instance it was upon the reputation of a public institution in which a large number of our most wealthy and charitable citizens are interested; the character of the gentleman making the charge or statement was, also, exceptional, and a denial seemed to be necessary. It was made in the number of your journal for March 16th by myself, one of the medical officers of said institution. To this communication Dr. Sayre has replied in the number of the same journal for March 23d.

Waiving for the present all questions or issues which may have since arisen, it will appear, from his own admissions contained in his reply to my denial, but not in his original statement, that Dr. Sayre made the declaration that these eight were discharged as incurable, upon no other authority than the statements of "the patients themselves and their friends." Dr. Knight and myself, to whom Dr. Sayre refers as having had charge of these patients, deny, first, that all of these eight were ever inmates of the hospital; second, that any of them were ever discharged as incurable. As against the testimony of the patients themselves, therefore, and of their friends, we offer our own testimony and the actual condition of the patients at the time of their removal (such as were ever in the hospital) as given in my first letter, and we shall accept the verdict of an intelligent profession as to which testimony ought to have the most weight.

We shall permit ourselves to say, however, that, if the statements of patients and their friends were always competent testimony, we would have it in our power to materially injure the reputation of many surgeons; for not a day passes but patients declare that they have been "given up" by their medical attendant as "incurable." We have learned, however, that such statements are seldom reliable, or worthy of a moment's attention.

In the second statement made by Dr. Sayre, viz., that under his hands seven of the eight were cured—"made a good recovery"—we have an interest only in common with all others. It would be much easier for Dr. Sayre to ascertain the facts than for us, yet so far as we can learn, he has not ascertained the facts fully: but the information I have thus far obtained seems to show that *one* "has made a good recovery," possibly, three, certainly not *seven*; and that *two* instead of *one*, as stated by Dr. Sayre, have died "from exhaustion."

In saying "possibly three" have made a good recovery, we include, for argument's sake, Chas. Smith, who, in our opinion, was never a hospital patient. If he was it would be easy, we suppose, for Dr. Sayre to establish that fact. The parents ought to have the



dispensary card. The condition of the boy is described by Dr. Sayre\* at the time of the operation: "Five fistulous openings, one of them in the groin. Very much run down from want of proper food and good air" (my italics). With all the sins laid at our door, we are not charged with "want of proper food and good air." We include, also, in the "possibly three" the child of Mr. Potter, who was never a hospital patient, but Dr. Knight's private patient, being brought from Newport, R. I., at each visit, as stated in my last, and never discharged by him as incurable. We have reason to believe that he is not cured. As evidence that he is cured, Dr. Sayre read to me extracts from a letter, but he did not, as he affirms, "allow [me] to read it." In the portions read to me the writer spoke of the boy as taking quinine, and of being in search of baths beneficial to patients with hip-disease. I asked Dr. Sayre whether he was giving the quinine for malarial poisoning, and he said "yes." The words "malaria" or "malarial poisoning" were not in the letter, as Dr. Sayre truthfully states. I have never said they were. When Dr. S. published portions of this letter he omitted what was said about baths and quinine. For what reason? I do not believe, however, that the wound is closed or was closed up to the latter part of January, 1878. From reliable information received since the date of my last publication, I am justified in this disbelief. I am not aware that Dr. Sayre has ever stated publicly that the wound in this individual case is healed. It occurs to me that the profession would like this question answered definitely before accepting the case as one of "good recovery."

Certainly the fact is well known to medical men that a boy may have diseased bone and fistulous openings before and after excision, and yet may "prove an admirable sailor," may "*never be ill a moment*" (crossing the ocean), may be "up on deck every day," may ride out sometimes in an open carriage and sometimes go on a donkey—"enjoy it very much" too—may send "his love" to the doctor and say "he is very well." This is the information contained in the letter as published.

A word in regard to certain new issues; I mean issues not contained in Dr. Sayre's first public statement. He says the fact that they were all incurable without an operation is sufficiently established by the character of the surgeons who were present at the operations, and gave their approval and assistance. I am not aware that any one has called in question the propriety of the operations made by Dr. Sayre. I am in no position to decide that point, since all such patients ever treated in the hospital had been withdrawn months before the operations were performed, and in the meantime they may have become better or worse—may have "run down from want of proper food and good air." One was not operated on for ten months; one, three months; two, five months; two, nine months; and one at least thirteen months. If, therefore, Dr. Sayre means by the testimony to prove that they were all in a condition demanding excision when they left us, we deny that the testimony is conclusive, or even presumptive, and it is unscientific to offer it as such.

Dr. Sayre says there is a discrepancy or two which he asks me to explain: I said in my first paper "all who were ever treated here are indexed," and in reference to Mr. Potter's child I said "he was never treated as an in-patient of the hospital, and I find no record of his case." In the following lines I add that Dr.

Knight has a distinct recollection of the case. The child was, in fact, brought that he might be a private patient, the circumstances of the parents being such that they would never have thought of making him an hospital patient. Dr. Knight objected to treating the boy at so great a distance from the city, and the term "out-door patient" used by me was not intended to convey the idea that he was in any sense a hospital patient. For this reason his name was not recorded.

Having made my explanation now, as requested, would it not be well for Dr. Sayre also to explain why, in quoting my printed language ("all who were ever treated here are indexed"), to prove me guilty of a "contradiction," the word "treated" is omitted, and I am reported as saying "*all who were ever here are indexed?*" I concur with Dr. Sayre in his appeal contained in his last note, that "the profession may suspend their judgment" until the facts are known.

With much respect,

V. P. GIBNEY.

125 E. 42d St., March 26, 1878.

## THE COMMITMENT OF THE INSANE.

### MISS DICKIE'S CASE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The balance of the testimony is in favor of the view that this lady not only was, but is insane. She was committed upon the testimony, among others, of Dr. Alfred C. Post, who still believes her deranged. She was accepted as such by Dr. Tilden Brown, in whom we all have confidence. The present Superintendent, Dr. Nichols, has no doubt that she is insane, and that the person who may be appointed her guardian will soon discover the mistake of taking her out of the asylum. This prediction it is said has not only already proved true, but that one of the so-called experts who testified to her sanity had previously given an opposite opinion. Dr. McDonald, who has had charge of her longer than any other person, says if she is found to be really insane, he is willing to share the blame with Dr. Ramsey, who used to visit her there, and acquiesced in her detention, of permitting her to remain so long in the asylum. Up to the latest moment before her discharge she was constantly annoyed by whispers, which came to her through the waste-pipes from the stories above and below her, and believed that persons were sent to these places especially to annoy her. She has several times supposed that she was going to be married to a person who gave her no encouragement, has fixed several different days for her wedding, ordered her marriage paraphernalia, and sent out cards of invitation. She is so very small that her fits of rage do not amount to much, and she can be easily controlled; but she has the usual insane dislike to all her relatives and friends, and prefers strangers who pander to her infirmities.

The whole proceedings in her case by the judge, jury, commissioners, lawyers, and experts, were either founded upon the grossest ignorance, or culpable prejudice. The judge's charge was only a step above a newspaper sensation.

MEDICUS.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 24 to March 30, 1878.*

BACHE, D., Major and Surgeon. Leave of absence extended one month. S. O. 44, Div. of the Pacific and Dept. of California, March 18, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 30, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| March 23, 1878... | 0             | 5              | 92             | 3                          | 81       | 82          | 0          |
| March 30, 1878... | 0             | 2              | 77             | 0                          | 84       | 48          | 1          |

AN ACT TO BETTER REGULATE THE PRACTICE OF PHYSIC AND SURGERY IN THE STATE OF NEW YORK.—The People of the State of New York represented in Senate and Assembly do enact as follows:

§ 1. Every person now lawfully engaged in the practice of physic and surgery in the State of New York shall, on or before the first day of October, 1878, and every person subsequent to the date of the passage of this act, commencing the lawful practice of physic and surgery in the State of New York, shall register his name in full, the place of his residence, the place of his birth, the character of his qualifications, whether diploma, license, or certificate, the date of said diploma, license, or certificate, and the name of the society, college, or body granting the same, in a book kept for such purpose by the clerk of the county in which such person resides or practices at the office of such clerk. Such registration shall be made under oath before a notary public, who shall also affix his name thereto. Each county clerk in the State shall provide a book to be kept for said purpose in his office, and said clerk shall receive a fee of twenty-five cents for each name registered therein, to be paid by the person so registering. And said book is to be kept open for the inspection of the public during business hours.

§ 2. It shall be the duty of the censors of each incorporated county medical society to inspect said book, kept in the county of his residence, during the first week of October and April in each and every year, and to record their names therein at the time of such inspection, as evidence of such inspection having been made.

§ 3. It is hereby declared a misdemeanor for any person, excepting those now lawfully engaged in the practice of physic and surgery in the State of New York, to practice physic and surgery in the State of New York unless such person shall have lawfully obtained the degree of doctor of medicine from some one of the incorporated medical colleges in the United States or from the Regents of the University of the State of New York, pursuant to Chapter 746 of the Laws of 1872.

§ 4. A violation of the provisions of Section 1 of this Act is hereby declared to be a misdemeanor.

§ 5. Any person found guilty of a violation of the provisions of Section 3 of this Act shall be deemed guilty of a misdemeanor, and shall for the first offence be fined not less than two hundred dollars nor more than three hundred dollars, and shall be imprisoned until such fine be paid, and, in addition to such fine, such person may be sentenced to imprisonment for a term not exceeding six months. And for any subsequent offence said person shall be fined not less than four hundred dollars, nor more than six hundred dollars, and shall be imprisoned until such fine be paid, and, in addition to such fine, such person may be sen-

tenced to imprisonment for a term not exceeding eighteen months. Such terms of imprisonment are, however, subject to the terms of limitation prescribed by the provisions of Chapter 61 of the Laws of 1876. One-half of all such fines shall be paid to the president of the medical society making the complaint, for the uses of the society.

§ 6. Proceedings for a violation of the provisions of this Act may be instituted by the president of any one of the incorporated county medical societies of the county in which the offence was committed on his written complaint. Said complaint, together with the affidavits upon which the warrant is granted, must be sworn to before a police justice or a notary public. Proof of the fact of a demand having been made on the person accused for the production of his diploma by the President of the Board of Censors of the County Medical Society, the President of which Society makes the complaint, and of the refusal or failure of the accused to make such production, shall be for the purposes of the proceedings before the police magistrate, *prima facie* evidence of the guilt of the accused.

§ 7. The Act of May 11, 1874, regulating the practice of medicine and surgery in the State of New York, is hereby repealed.

TALKING MACHINE.—Mr. Edison, by this invention, has done for sound what Daguerre did for light—made it possible to fix and permanently retain the most fleeting impressions. We pointed out, last month, the marvellous capacities of cold iron, magnetism, and an electric wire; but the capacities of the phonograph are still more marvellous, for, with only a vibrating plate, a sheet of tin-foil, and a crank, it is possible to arrest and fix all kinds of sound, and, having preserved them as long as metals will hold their properties, to give them forth again in all their original qualities. The voice, indeed, is somewhat muffled and minified when returned from the iron tongue of the phonograph; but its intonations, inflections, pauses, and quality are rendered with surprising fidelity. By the simple turning of the crank, the machine talks, sings, shouts, laughs, whistles, and coughs, so naturally and distinctly, that the listener can hardly believe his senses, or escape from the suspicion that there is some ventriloquist *hocus-pocus* about it, or a little fellow concealed somewhere about the arrangement. But the fact is established, and must be made the most of. A machine, as simple as a coffee-mill, hears a speech or a song, and gives it back as perfectly as it was at first uttered by the living organs of voice. And so, again, we have the lesson repeated, with still greater emphasis, that we must raise our estimate of the powers and potencies of "mere dead matter."—PROF. YOUNG, in *Popular Science Monthly* for April.

PROF. D. W. YANDELL, OF LOUISVILLE, KY.—During his visit to this city, on his way to Europe, this distinguished gentleman has been the guest of Prof. F. J. Bumstead, and has been the recipient of many hospitalities from his numerous friends. On the eve of his departure (Tuesday) Dr. Bumstead tendered him a brilliant reception, at which was present a large number of representative medical men.

BROWN-SÉQUARD'S TREATMENT OF EPILEPSY.—Our attention has been called to a formula of Brown-Séquard, which is claimed to have been used by Dr. Ayer, and which is given in *Boston Surg. Journ.*, Dec. 27, 1877, and copied by us in our issue of Feb. 9, 1878. There seems to be an error in the prescription. The original formula stood *iodidi bromidi*, and in our issue as *iodinii bromidi*, the dose of which, if ever ad-



ministered in medicine, appears to be excessive. We beg of our readers not to make use of the formula until we have investigated it more fully.

**HELMINTHOLOGY.**—Important additions have been made to this science during the past year, and the necessity for more extended investigations is evident. An epidemic of diarrhœa was traced to the presence of two nematode worms (*Anguillula stercoralis* and *A. intestinalis*). In Italy, good work has been done, tending to prove the great tenacity of life of those organisms giving rise to the pork and beef measles, Dr. Payne and several students having courageously submitted themselves to experiment, and infecting themselves with "*Tenia medio-cannellata*." A more recent discovery in helminthology has important relation to the origin of many obscure diseases. It appears that a Mr. Bancroft wrote from Brisbane in April, 1877, and incidentally remarked: "I wonder if mosquitoes could suck up the hæmatozoa and convey them to water? They appear to die in water. I will examine some mosquitoes that have bitten a patient, to see if they suck up the "*filariæ*." At the time "Bancroft" was surmising, Dr. Manson, of India, demonstrated this to be a fact. In November, 1877, Dr. Manson wrote to Dr. Spencer Cobbold, the eminent helminthologist, announcing the discovery of this parasite in the stomachs of the mosquitoes, which had fed on hæmatozoal patients, describing also the developmental changes it undergoes during its residence in the insect.

He also supplements the fifteen cases of this human hæmatozoa, giving details of no less than thirty-five additional cases, and a mass of valuable statistics in relation to the prevalence of "*Filaria sanguinis hominis*." Thus, what the Russian traveller Tedscheuko showed in relation to the case of the "cyclops," considered as the host of the Guinea worm, Manson has shown to obtain in the case of the "*Culex* mosquito." True, there was a difference in detail, but both play the rôle of intermediate bearer, the little crustacean and the small mosquito. Dr. Cobbold, as a practical comment on these discoveries, well remarks that "if physicians will only reflect to what extent diseases hitherto obscure are to be associated with the bite of a gnat, they will, perhaps, be not less ready than hitherto to extend a helping hand to those who, at great sacrifice, labor in the fields of helminthology."

**BACTERIA.**—Dr. Arthur Downes and Mr. T. P. Blunt presented to the Royal Society (England) the result of some very interesting observations on the effect of light upon bacteria and other organisms. The experiments were carried out in great detail, and their record is too lengthy to be given in full. The deductions to be drawn may be summed up as follows: 1. Light is inimical to the development of bacteria and the microscopic fungi associated with putrefaction and decay, its action on the latter organisms being apparently less rapid than upon the former. 2. Under favorable conditions it wholly prevents that development, but under less favorable ones it may only retard. 3. The preservative quality of light, as might be expected, is most powerful in the direct solar rays, but can be demonstrated to exist in ordinary diffused daylight. 4. So far as the investigation has gone, it would appear that it is chiefly, but perhaps not entirely, associated with the actinic rays of the spectrum. 5. The fitness of a cultivative fluid to act as a nidus is not impaired by insulation. 6. The germs originally present in such a liquid may be wholly destroyed, and a putrescible fluid perfectly preserved by the unaided action of light.

In the course of the investigations it was observed that when bacteria appeared early and in large numbers in the solutions used, the mycelium of penicillium, or other microscopic fungi was rarely seen, the bacteria apparently preëccupying the ground; when, however, the development of bacteria was from some cause retarded or prevented, tufts of delicate mycelium were frequently found in the solutions after they had been incased or removed into diffused light. No mycelium, however, appeared during the period of exposure of a solution, except under certain conditions, nor indeed afterwards if this was sufficiently prolonged.

These gentlemen, therefore, infer that light may retard, or altogether prevent, the appearance of mycelial fungi, but that its influence in this respect is slower and less powerful than upon the schizomycetes. They also suggest that this may explain, in part at least, the sparing distribution of bacteria in ordinary air, as compared with the prevalence of the spores of penicillium, etc., a fact observed by Burdon Sanderson and others.

**POSITION IN LABOR WITH A BREECH-PRESENTATION.**—Dr. J. M. Ward, of Cornelia, Missouri, writes: "Some twenty years ago I met with my first case of breech-presentation, and I was so unfortunate as to lose the child. I thought that I ought to have done better, and so determined to do in future cases, notwithstanding the authorities state that one in three die. I was not long in waiting for an opportunity, and when the case had so far proceeded that the breech would likely be delivered at the next pain, I placed the woman on her knees with the breast resting on the head-board of the bed, which was high enough to place the body at an angle of 45°.

"I found that I had gained a great deal over the method of delivery on the left side or back, as the woman could exert more force aided by gravitation, and then there was the best possible chance to give effective assistance. The result has been that I have never failed to save the child since I adopted that method, and I believe it should be the rule in obstetric practice. Physicians to whom I have communicated the idea approve it, and wonder that they had not been taught so simple a procedure."

**MORTALITY IN ST. PETERSBURG.**—St. Petersburg, according to recent vital statistics, is, with a single exception, the unhealthiest city in the world, official returns giving the death-rate as 57 per 1,000, against 24 per 1,000 in London, and 20 in New York, 36 per 1,000 in Calcutta, 38 per 1,000 in Turin, 39 in Naples, 40 in Alexandria, 41 in Bombay, 27 in Edinburgh, 33 in Dublin, and 30 in Liverpool. The rate at Madras is 101.

**BRITISH PRIZE AWARDS.**—The Fothergill gold medal for 1878, of the London Medical Society, has been awarded to Dr. J. Milner Fothergill for the best essay on the "Antagonism of Therapeutic Agents." The silver medal for the best paper read during the last session, was awarded to Dr. J. Althaus, for a paper on "Disease of the Anterior Cornua of the Cord."

**DEFECTIVE DRAINAGE AND DIPHTHERIA.**—The sometimes strongly argued causal relation of defective drainage to diphtheria has received a striking illustration in a recent report of the Medical Officer of Health for Hackney, England, who describes the late serious outbreak at Upper Clapton. A personal inspection of the houses in which the cases occurred showed that in every instance save one, the overflow

pipes of the cisterns were connected with the drains, so that sewer gas could readily obtain admission to the house. In one case no less than five pipes emptied themselves into the drains without being trapped, so that sewer gas came up the waste-pipe of a fixed wash-basin whenever the plug was taken out.

**STRUCTURE OF SPERMATOZOA IN MAN.**—In a paper read before the Sixth Congress of German Surgeons, Dr. A. Menzel records some observations upon the milky fluid taken from a spermatocele, from which it appears that the spermatozoa in man exhibit, under certain circumstances, a very distinct transverse striation. The sperm-cell he finds to exhibit very lively movements, and to show a disposition to throw out long filiform processes. The seminal animalcules, it seems, proceed without exception from the nuclei, and never from the protoplasm of the cells.

**MORTALITY FROM SMALL-POX IN LONDON.**—The *Lancet* furnishes some interesting statistics as to the mortality from small-pox last year in the hospitals of London, from which it appears that 6,728 cases were admitted, and the whole number recorded was 7,242, of whom 1,284 died and 5,958 recovered. During the epidemic of 1870-71-72, the number of cases treated was 14,808, with a rate of mortality of 18.7 per centum. Last year the rate was 17.7 per cent., but varied greatly at different seasons, being for the first quarter 19.7, for the second 16.4, for the third 10.9, and for the fourth 29.6.

**TREATMENT OF OPIUM-POISONING WITH ATROPINE.**—At a recent meeting of the Medical Society of London, Dr. Milner Fothergill related an interesting case of opium-poisoning successfully treated with hypodermic injection of atropine. The patient had taken the equivalent, in laudanum, for twelve grains of opium. Three hours after taking the dose, Dr. Fothergill saw the woman, and immediately administered, by injection, a solution containing one grain of atropia sulphate.

**MEDICAL OBLIGATION IN RUSSIA.**—A strong agitation has been set on foot in Russia to procure the abrogation of a law that compels a physician to attend any one who may call for his services, and subjects him, in case of refusal, to a fine of from five to ten roubles for the first, ten to fifteen for the second, and fifty to one hundred for the third offence. In 1869 a similar law was repealed in Prussia.

**DIAGNOSIS OF BRAIN TUMORS.**—Dr. Dreschfeld, in the course of a valuable paper on the diagnosis of tumors of the brain, observes that, when situated in the cortical portion of the ascending parietal and ascending frontal convolutions, the symptoms correspond to those produced by lesion of the striated bodies; while, if situated in the anterior lobes, the phenomena are more strictly psychical. In lesion of either of these regions convulsions or epileptiform seizures supervene, but when the tumor is in the first-mentioned situation, the attacks are always preceded by an aura, whereas, when in the latter situation, no aura occurs. Vomiting is not common in lesions of the anterior lobes. On the other hand, optic neuritis is frequent, cephalalgia is a persistent symptom.

**AWARD OF THE MARSHALL HALL DIPLOMA.**—At the last annual meeting of the Royal Medical and Chirurgical Society of London, the diploma of the Marshall Hall prize was conferred upon Dr. John Hughlings-Jackson for distinguished contributions to the medical knowledge of aphasia, to the clinical re-

lations of epilepsy, and to the physiology of the brain. This is the first instance in which this honorary diploma has been conferred.

**DIPHTHERIA IN PARIS.**—From statistics collated by *Le Progrès Médical*, it appears that the mortality from diphtheria has more than doubled in Paris since 1872, when the disease was responsible for 1,135. In 1873, the number rose to 1,164, but fell in 1874 to 1,008. In 1875 it was 1,328; in 1876 it had risen to 1,571; last year, to 2,393. Density of population has little, if any, influence in determining the disease; but poverty, observes M. Besnier, is very distinctly concerned in promoting its development.

**RELATION TO LIFE OF AEROSTATIC PRESSURE.**—The notion that the fatal effects experienced from exposure to a highly rarefied atmosphere is caused by the diminished pressure, is disputed by Prof. Paul Bert, of Paris, in an essay which has been awarded the great prize, issued every two years by the Institute of France. By an ingenious series of experiments, Prof. Bert shows that when a bird, placed under a bell-glass from which the air is gradually exhausted, commences to exhibit symptoms of dissolution, it may be immediately restored by the addition of a little pure oxygen to the highly rarefied medium; while by continuing the action of the air-pump, as well as the admission of oxygen, the rarefaction may be kept at a standard supposed to be sufficient to cause death, without resulting in serious inconvenience to the animal. After having experimented upon various animals, Prof. Bert placed himself within a large cylinder, with the nozzle of an oxygen bag in his hand, and caused the air to be slowly exhausted. At the expiration of twenty-one minutes, with a barometrical pressure of 590 millimetres, his pulse was 70. At the expiration of thirty-five minutes, with a pressure equivalent to that of 13,000 feet above the sea-level, his pulse was 84, and a feeling of nausea nearly overcame him. Two minutes later the nausea disappeared, the abdomen became a little swollen, and signs of congestion appeared in the face. After being in the cylinder two hours and forty minutes, the pressure being 430 millimetres, and the pulse 84, he took three whiffs of oxygen, and the pulse instantly descended to 78. Four minutes later, he inhaled more oxygen, the disagreeable symptoms vanished, and the pulse went down to 70. In another curious series of experiments, the professor finds that aerostatic pressure, even of oxygen itself, extinguishes life, and is destructive to organic compounds. Ferment organisms, such as bacteria, are almost instantly killed by the action of compressed air, or of compressed oxygen gas, while fermentations due to dissolved matter, such as diastase, perfectly resist the influence of atmospheric pressure. The ripening of fruit being arrested by compressed oxygen, Prof. Bert concludes that the phenomenon is one of cellular evolution. The poison of the scorpion, on the contrary, wholly resisting the action of increased aerostatic pressure, he concludes to be due to the pressure of compounds similar to the vegetable alkaloids. Fresh vaccine lymph, after having been subjected to the pressure of 50 atmospheres for a week, retained its virtue; and Prof. Bert concludes from this fact, that its active principle is not the cell found in it, as many have supposed. The poison of glanders remained active after similar treatment, and carbunculus blood, though freed from bacteria by aerostatic pressure, still retained its dangerous properties. He concludes, therefore, that the bacteria, germs, cells, penicilium spores, etc., found in these poisons, are not the cause of their virulence.



## Original Lectures.

### LECTURES ON FEVERS.

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(Reported for THE MEDICAL RECORD.)

#### LECTURE II.

#### TYPHOID FEVER (CONTINUED)—SYMPTOMS—TREATMENT.

GENTLEMEN:—In the concluding part of the last lecture we were studying the symptoms of typhoid fever. We will continue the same subject to-day, and the next symptom to be described is the *eruption*. This makes its appearance on the seventh or eighth day from the first chilly feeling. It sometimes occupies the entire body, and in some cases it is chiefly found upon the abdomen and upon the back. It can usually be seen upon the chest also, and sometimes upon the limbs. It rarely occurs upon the face. The eruption consists of small red spots, not more than a line and a half or two lines in diameter. These spots may be so numerous as almost to run together, or they may be so few in number that you will be obliged to search diligently to find them. The eruption is not attended by pain, itching, or any peculiar sensation. The spots remain red or rose-colored until they disappear; and they disappear pretty quickly. During its entire existence each spot can be bleached by the pressure of the finger, but the color will return as soon as the pressure is removed. In this respect it differs from the eruption of typhus fever. It differs from the typhus eruption in another respect; the typhus eruption disappears through some shades of yellow staining, and that staining is due to changes which occur in the coloring matter of the blood, but as there is no effusion of blood in the eruption of typhoid fever, the yellow discoloration does not appear. The eruption disappears at the end of a week; but disappearing, sometimes a new crop of the eruption makes its appearance. Mr. Louis, in studying this point, made markings upon the surface with nitrate of silver for the purpose of ascertaining whether the new eruption appeared on the precise site of the old, or whether it occupied new positions. He found that the sites occupied by the old spots were not occupied by the new ones, but that it was a new eruption occurring on new sites. The eruption is not always present, and its occurrence is much less frequent in this country than in France. Still, we always search for it, and when it is found we recognize in it a very valuable diagnostic indication.

A few words must be added to what has been said regarding the *temperature* in typhoid fever. It has been claimed within the last few years that there is a special mode in which the temperature of typhoid fever increases. For example, it is claimed that at the beginning of the fever the advance is gradual until it reaches its maximum; that it remains at the maximum height until the fever begins to abate; then the morning remissions become more and more marked, and finally the normal standard is reached. On the second day of typhoid fever the temperature in the morning should, according to this doctrine, be 101° F., in the evening of the same day 102° F. On the morning of the next day it should

be 102° F., and in the evening of that day 103° F. Again, on the morning of the following day it should be 103° F., and in the evening 104° F. By the *fifth* day of the disease, then, the temperature may have reached 104° F. in the morning, and 105° F. in the evening; at least the rise in temperature is said to be gradual until the highest point is reached. The highest point being reached it remains about the same, with daily variations, a remission in the morning and an exacerbation in the evening during the second and third weeks. That feature I have noticed—namely, that there is but little subsidence of the temperature during these weeks, and that when it does begin to abate the morning remission becomes more marked. For three or four days before the fever comes to its termination there will be between the morning and evening temperature, instead of a variation of only one degree or a degree and a half, a variation perhaps of three or three and a half degrees. Such a fever is defervescing, as the technicals say. Since this observation regarding the gradual rise of temperature in the early days of typhoid fever was announced, I have given particular attention to it. It is true, that we have not had many cases of typhoid fever in the city within the last two or three years, so that the opportunity for observation has been rather scanty. But in the instances in which it has been observed this precise mode of increase in temperature has not been noticed. We noticed very frequently a great variation between the morning and evening register, as the temperature began to subside, but there was not the regular advance mentioned as occurring in the initial days of the disease.

There has been one embarrassment in this respect, however, for I see cases of typhoid fever, as they occur outside of hospitals, only in consultation, and then the disease is generally pretty well advanced. I have, therefore, had few good opportunities to study this rule in private practice. In the hospital we do not commonly get the cases until the end of the first week, and that is at the end of the time when this important observation should be made. We had one case which originated in Bellevue Hospital from some unknown cause, and we had the opportunity to make the requisite observation, but it did not come under the rule relating to the steady increase of the initial temperature. It may be, therefore, we shall be obliged to study anew the temperature of typhoid fever as it occurs in this country.

Now let us take a case in the third week of severe and dangerous typhoid fever. We shall find the patient with a pretty rapid pulse, and yet the pulse throughout the course of an average case is not rapid. A great many patients go through an entire course of the fever with a pulse never exceeding 100. But in the supposed case the pulse is perhaps 120 or 130. The countenance is dull; the patient is inclined to stupor; has but little perception of what is going on around him; possibly is comatose; perhaps has the *coma vigil* which is seen in typhus fever; he is inclined to slip down in the bed; he is probably quite deaf; if pinched, he does not feel it very much; his sight is obscure; his mouth is filled with sordes; his tongue is dry and cracked, or it has the color of beef; the evacuation from the bowels occurs without his knowledge; the urine is retained in the bladder until it forces its way by drops from the urethra; the respiration is pretty rapid; and there is more or less fall in the temperature.

When this condition has been reached, the man is very likely to die; but, at the same time, with these symptoms a few do get well. A great many thousands,

however, go through typhoid fever with the development only of symptoms of moderate severity, and those cases usually recover.

#### DURATION OF THE DISEASE.

The duration of this disease is about four weeks; and yet I have seen a woman who had symptoms of typhoid fever for 120 days. It was on the one hundred and twenty-first day that I saw her, and there had been no marked defervescence at any time during her sickness. How was the case to be explained? The explanation is that she had a fever resulting from the lesions of typhoid fever just described as affecting the glandular structures of the intestines, the mesenteric glands, and the spleen. The disorder of the spleen may not yield readily; the alterations in the intestines may hold on, and produce a diarrhea which lasts for a long time. The lesion of the stomach may be more prominent in certain cases than in others, and the lesion of the lungs may hold the patient down for an unexpected period of time. The typhoid fever proper does not extend beyond four weeks; the period of communicability is not probably more than six, and what of fever and sickness is continued beyond that time is probably free from the danger of communicating the disease.

#### NATURE OF THE POISON BY WHICH THE DISEASE IS SPREAD.

Next with regard to the nature of the poison by which the disease is spread. From several instances which I have cited in which a disease resembling typhoid fever has been produced by dejection from a typhoid patient mingled with water in various ways, it is pretty certain that these dejections are capable of poisoning well persons. Then the question arises, are they capable of poisoning well persons simply because they carry some general poison that is disseminated or diffused about the sick person, or is it that some fermentation occurs in the dejections, and thus produces the poison? This latter is the doctrine of to-day. It is farther claimed that there is no diffusion of poison about the patient, except such as comes from the clothes that have been soiled by faces. That point is not yet settled, and requires farther study. It is a point, however, of great importance, and one which has a direct bearing upon the management of the patient.

#### ABORTIVE CASES OF TYPHOID FEVER.

A word with reference to abortion of the disease. There are some abortive cases of typhoid fever. The disease runs on for a few days and then spontaneously subsides, not running through its regular course. The abortive cases are seen more commonly among children than among adults.

It has been known for a long time that infantile remittent fever is typhoid fever. For, when the disease exists for a certain length of time, there are found, at post-mortem examination, the same lesions found after typhoid fever occurring in adults. I have over and over again seen this fever in children terminate in nine days; and not infrequently in seven days. Occasionally the same thing occurs in the adult; possibly because the system is not susceptible of the disease to the same degree as in other persons; possibly because there may be some protective influence from some other fever; or the person may have had a previous attack of typhoid fever.

#### ACCIDENTS OF TYPHOID FEVER.

There are certain accidents liable to occur in the

course of this disease, which require some attention. Persons having typhoid fever are liable to *abscesses*, and a rather favorite seat of abscess under these circumstances is the region about the parotid gland; it is a peri-parotiditis. It usually occurs, if developed at all, in the second or third week, and when the inflammation has once commenced it almost always advances to suppuration. It occasionally happens that inflammatory abscess occurs in other parts of the body. But there is another kind of abscess to which the typhoid fever patient is liable; it is called the *cold abscess*. Such an abscess may occur upon the arm, over the sternum, perhaps upon the leg, but more frequently upon the upper part of the body.

There is little or no evidence of the existence of an inflammatory process as shown by heat, redness, or pain, but a swelling and fluctuation is usually the first thing noticed. Once observed, it is found that the abscess advances, dissects up the muscles, and, if left to itself, it will be found that a great deal of mischief will be done.

*Hemorrhage from the bowels* is liable to occur in the course of typhoid fever. I attended 100 cases of the disease before I saw one in which hemorrhage from the bowels took place, and I began to feel that the importance of this accident, as regards its frequency, was greatly exaggerated. But just then the cases came in a kind of shower; several came under observation in pretty rapid succession. The hemorrhage is of two kinds; first, that which occurs early in the disease; and second, that which occurs late, sometimes even during convalescence. When it occurs early, my conviction is that it is not because of gangrene of the intestine, as Niemeyer says, but that it is from hyperemia in the parts where ulcers are forming. The ulcers have not yet formed; there is no destruction of blood-vessels, and this early hemorrhage is apt to be quite innocent. The hemorrhage which is most alarming is that which occurs in the manner referred to, by the destruction of a blood-vessel of moderate size, as an ulcer advances. When it occurs during convalescence, it is evidence that the ulcers are not all healed when the fever subsides.

Of *perforation of the intestine*, perhaps sufficient has been said, except with reference to treatment.

#### MODE OF TERMINATION OF TYPHOID FEVER.

The disease terminates rather suddenly and in this respect resembles typhus fever. For example, you see the patient in the evening and find that his pulse, temperature, and the appearance of the countenance indicate the continuance of the fever, but at the morning visit you find that his face is pale, that his temperature and pulse have fallen, that his reason has returned, if he has previously been delirious, and when asked how he feels, he will answer, "Doctor, I am so weak!" the same as does the typhus fever patient. From that time he slowly recovers from the effect of the disease. His appetite returns; he is soon able to sit in a chair; and soon after he is able to walk. Recovery of strength, however, is almost always slow; it takes a month, perhaps two or three, and sometimes six months, to fully recover this.

With regard to the mode of termination of the disease, it is commonly in the manner described, but in a few cases termination occurs by *crisis*. In my own case, the first thing remembered after losing my senses was that four persons were moving me from one bed to another upon a sheet, and that I was dripping with perspiration; that perspiration lasted for an entire day. During its continuance I recovered my reason, and the doctor said, "You are better." After the



sweating ceased, I myself was conscious of being better and stronger.

There is a curious fact with regard to convalescence from typhoid fever, and that is, before the patient recovers his full strength, he often acquires an *unusual quantity of fat*. He looks as though he had sufficient strength, but he feels weak. It is to be noticed that this accumulation of fat all finally disappears, and the patient is brought back to the condition he was in previous to the occurrence of the fever.

There is another point with reference to the convalescence, and that is, the patient usually *loses his hair*. This may go on to such an extent that he becomes entirely bald. It is often the case that he becomes nearly bald; but there need be no apprehension regarding the permanency of the baldness, for the hair follicles remain, and a new growth of hair will be produced which will be nearly as good as the old.

#### TREATMENT OF TYPHOID FEVER.

We will now pass to the consideration of the treatment of typhoid fever. Active treatment of this disease has been long abandoned. It used to be the fashion to bleed, and also to produce ptialism. I remember doctors who said with confidence that where they saw evidence of the special action of mercury in these cases, they were sure of recovery. But all that has been abandoned.

Again, there were doctors, and perhaps there are some now, who put great confidence in a purgative plan of treatment; or, perhaps more strictly, an emetico-cathartic plan. An emetic and cathartic were administered together, and the cathartic was always calomel. It was claimed by those who resorted to this plan, that in certain cases abortion of the disease has been actually produced. I doubt that. In the course of an epidemic of typhoid fever, cases of ephemeral fever occur. These terminate of themselves within a few days, and the general opinion now is that those cases which have been reported as aborted cases were really cases of ephemeral fever, or cases of themselves abortive. At all events, since "Graves fed fevers," the tendency in the profession has been to treat typhoid fever with as little medicine as possible.

I may safely say to you that a case of typhoid fever of average severity needs no medication except for the relief of certain symptoms, such as sleeplessness, perhaps a little urgency in the diarrhoea, sensation of burning upon the surface of the body, etc. There are a great many cases of typhoid fever which need no treatment whatever by way of drugs, but everything by way of management of the case. Still, it does happen in many of the cases that some one of the symptoms requires treatment. The *diarrhoea*, for example, in many cases requires restraint.

Diarrhoea does not occur in every case of typhoid fever in this country; perhaps it does not occur oftener than in two-thirds of the cases. But when it does occur, the usual remedies are serviceable here as in other forms of diarrhoea. The astringent which I have referred to so frequently is found to answer a very good purpose. It consists of:

R. Bismuth. subnit. .... 3 i.

Morphiæ sulph. .... gr. i.

M. et div. in chart. No. xii.

One to four a day.

The common astringents tr. kino and tr. catechu may be employed, and the decoction of blackberry root is sometimes very serviceable. In some cases it requires the moderately free use of opium to restrain the diarrhoea.

There is always a *cough* in typhoid fever, but as it is not important in the average case, I have not mentioned it until now. There is slight bronchial irritation, which appears early in the disease, and continues usually until the period of imperfect anaesthesia is reached, when it may cease. The material raised is commonly a glairy mucus, but in some cases the slight bronchitis becomes a catarrh, and will require treatment. It will need the same treatment as bronchitis occurring under any other circumstances, except that the tonic expectorants will be most likely to do good. Perhaps one of the best that can be used is the *Co. Tr. of Benzoin*, in doses of ten drops on sugar once in three or four hours. A very good combination is the tincture of the balsam of tolu and the mistura guaiaci.

R. Mist. guaiaci. .... 3 j. to 3 ss.

Tr. balsam tolu. . . gts. vj. to x.

M.

This can be repeated every two, three, or four hours. Sometimes the inhalation of the vapor of warm water seems to be required for one or two hours each day.

*Restlessness* is one of the prominent features of the disease, and that will very frequently be entirely quieted by sponging the surface of the body with warm or cold water. If the temperature is high cold water is better than warm; and in some cases a Dover's powder will be required.

The *temperature of the body* will require your attention. In many cases of typhoid fever it does not rise to a dangerous point; in a few cases it does. You will see the greater number of cases go through the entire course of the disease without the temperature at any time reaching 105° F. In a case of average severity the maximum temperature is about 104° F.; in occasional cases it reaches 106° F. or 107° F., and then you will either give quinine in pretty decided doses or use cold water for its reduction. If the patient is a young person, the cold bath is the most convenient means for reducing the temperature, and certainly the most efficacious. The temperature of the bath should be only ten degrees below the temperature of the body when the patient is first put into it. If the temperature of the body be 105° F., the patient may be placed in a bath having a temperature of 95° F.; then some of the warm water can be removed, and be replaced by cold water until the bath has been reduced to 80° F. If the patient is permitted to remain in such a bath twenty minutes, the temperature is usually reduced 1, 2, 3, 4, or even 5 degrees.

He is then removed from the bath, put back into bed, and it will be several hours, usually, before the temperature will rise as high as it was before using the bath. When it rises, another bath is to be given, and in that manner you will go on repeating the bath as often as may be necessary to keep the temperature below the point of danger.

The son of one of the professors in this college has within the present session had typhoid fever. In his case the bath was used about five times a day for several days, and always with the result of reducing the temperature and affording great relief to the patient.

For the *hemorrhage from the bowels* there is but little that can be done, unless, in addition to absolute rest, the fluid extract of ergot be administered.

For the *perforation of the bowels*, I have some faith in the opium treatment. As I told you, I feel confident that I saved one doctor's life by the narcotizing influence of opium, and there is no objection in typhoid fever to the administration of this drug.

"Graves fed fevers," typhoid fever as well as typhus; and now we come to the two essentials in the treatment

of this disease. I am in the habit of repeating the old proverb, "Stuff a cold, and starve a fever," and then add that we stuff them both now. First, then, the administration, steadily and perseveringly, of such food as can be absorbed by the stomach. We cannot talk much of digestion; the stomach is in a diseased condition, and cannot digest well, consequently everything solid in the way of food is out of the question. Most of these patients dispose of milk pretty well. For all those who can dispose of it, milk is the best food that can be used. For those who cannot use it, you will be obliged to do the best you can with beef-tea, raw egg beaten up with water, and made of such consistency that it can be taken with a spoon; and the expressed juice of beef. The beef-tea does not contain a great deal of nourishment, and when it can be used, milk is a much better article of food.

The expressed juice of beef answers very well, and can be obtained by cooking a piece of steak so as just to crust the two surfaces, and then cutting it into pieces and squeezing the juice out with a lemon-squeezer. The broths are given rather as diluted food in the early part of the disease, when it is supposed that the patient should not take much nourishment, but as the disease advances, the food should be more and more sustaining. In cases in which the stomach fails to retain food, nutritious enemata should be employed. You will remember that the disease which produces the diarrhœa, is in the small intestine, not in the large.

The other essential of which I wish to speak is *fresh air*, but I will reserve that for the opening of the next lecture.

## THE OPERATION OF LAPARO-ELYTROTOMY.

By MONTROSE A. PALLAN, M.D.

BEING REMARKS MADE AT A MEETING OF THE NEW YORK ACADEMY OF MEDICINE, MARCH 21, 1878.

MR. PRESIDENT:—After the publication of Prof. T. Gaillard Thomas's first paper on this subject, at a meeting of the American Medical Association held in Philadelphia, five years ago, I then strongly advocated "laparo-elytrotomy," and predicted that it would ultimately take the place of the Cæsarean section as usually performed in cases where the integrity of the uterine neck existed. From the tenor of the remarks uttered this evening in the Academy, I felicitate myself that I was so fortunate as to recognize its advantages, so skilfully demonstrated since 1873 by Professors Thomas and Skene, in the successful issues of operations under their hands. Hereafter the obstetric surgeon will approach a labor-demanding craniotomy or abdominal section, with a degree of confidence in the result hitherto unknown. The statistics of saved mothers will be most materially benefited, and I hope the "slaughter of the innocents" will be of the past. The destroying angel will seldom sprinkle the door-posts with the sacrificial blood by and through the murderous perforator and cranioclast. Henceforward, with the perfection and promulgation of laparo-elytrotomy, so admirably executed by Professor Thomas, many of the trials and tribulations of the accoucheur will be obviated, and I, for one, most heartily thank him for the valuable work done in what has heretofore been regarded as the most dangerous and hazardous of surgical procedures, because it involves two lives instead of one. The Cæsarean section is as old as medicine itself, for, if we

are to believe Ovid, Esculapius himself was cut from his mother Coronis by Apollo, after he had slain her for infidelity. Bacchus likewise was removed by Mercury from the belly of Semele, after she had been destroyed in the embraces of Jupiter. Virgil mentions in the *Æneid* that Lycus was thus snatched from the dead body of his mother. These poetic fables, together with the *lex regia* of Numa Pompilius (wherein it was ordered that no pregnant woman should be interred until her abdomen was opened, lest the child be alive), as well as a passage found in the seventh book of the ninth chapter of Pliny, lead us to believe that *Cæsarian* was frequently practised among the Greeks and Romans. Scipio Africanus, Manlius Carthagenius, and Julius Caesar were said to have been thus delivered. If it were true of Caesar, his mother Aurelia survived the operation, as she was alive when he returned to Rome after his expedition to Britain. Mansfield relates that the Semitic races not only practised gastro-hysterotomy, but in the chapter *Mischajoth* of the Talmud it is expressly stipulated that the Israelitish women subjected to the operation were to be exempt from the forty days of purification required of lying-in women, and that a child so born had none of the rights of primogeniture. Shakspeare utilizes the traditional superstition when Macbeth declares his belief in the witches, and says:

"I bear a charmed life, which must not yield  
To one of woman born."

And Macduff replies:

"Despair thy charm,  
And let the angel whom thou still hast served  
Tell thee Macbeth was from his mother's womb  
Untimely ripped."

The first recorded operation upon the living subject is related by Rousset as having taken place in 1500, when Jacopus Nufer, a sow-spayer, operated upon his wife, Elizabeth Alepaschin, in the Department of Siegershausen, Turgovia. This man received a special permit to operate from the local magistrate, after the midwives and physicians had declared it impossible to deliver the woman. Strange to say, Elizabeth afterwards bore several children *per vias naturales*.

After the publication of Rousset's book on *Hysterotomokia* (Paris, 1581), the profession began to investigate what had been said upon the subject, more particularly with regard to the woman Godon, whom Rousset declared to have been operated upon seven times, and to the case Lenoir and Lebrun opened in three successive pregnancies. The facts were also sought concerning Nicole Béranger, who is described by Paré and Schenck to have been delivered, two years after an alleged section, of a daughter, and subsequently a son. The statements of Rousset, Baulin, and Simon were not believed to be absolutely correct, although they collated over sixty operations. Guillemeau failed twice, and Viart, Brunet, and Charbonnet each lost a case. Mauriceau, at first favoring it, afterwards looked upon it as an impossibility, "notwithstanding the statements of several impostors," although the section by *linea alba* is still known as his method. Peü declared he had no desire to perform it, and Dionis thought any surgeon who practised it upon the living subject should be punished. Delamotte, although he had once witnessed a successful issue at the hands of a surgeon of Pont-Labbé, was as bitter in his denunciations of Rousset as was Deventer loud in his praises.

In the last decades of the seventeenth and in the earlier ones of the eighteenth centuries, continental obstetric literature teemed with disputative dissertations on the Cæsarean section.



Baudelocque, however, has collected ninety-three cases, of which nine were successful prior to 1750, and twenty-four from that date to 1787. Velpeau also published an additional table of about fifty more successes by various French, German, Dutch, and Italian surgeons, bringing the dates up to 1830. But from 1750 to 1830 very many writers have recorded fatal issues. Thus, in Baudelocque's table of ninety-three cases, sixty were fatal either from the operation or from conditions coincident therewith. Sprengel says that sixty-one were fatal of the one hundred and six cases collated by him. Kelly and Hull record even greater mortality, one hundred and twenty-three dying out of two hundred and thirty-one sections. The British obstetricians have, until recently, but rarely performed laparotomy, either from a dread of the magnitude of the procedure or because they were wedded to craniotomy. A question well worthy of study is this peculiar fixedness in English, Scotch, and even Irish midwifery in favor of destroying the child by perforation or embryotomy, with the attendant dangers to the mother—very frequently fatal, as evidenced in the statistics of Blundell, Merriman, Burns, Rigby, Murphy, the Ramsbothams, Churchill, Simpson, and others. The British writers generally, prior to the last quarter of a century, either condemned the operation, or were so sparingly in favor of it that it may safely be said to be a *questio vexata*, if not a *questio damnata*.

Burns and S. Cooper did not know of one single successful effort in all Britain. Merriman, in his "Synopsis of Difficult Parturition," relates but one favorable result (that of Barlow). Denman never performed it, nor had he any knowledge of its performance in England. According to Hamilton, Fielding Ould declared Caesarean section to be a "proof of detestable inhumanity, illegal and barbarous." It is not at all improbable that British obstetrics was in a measure controlled by the teachings of Smellie and Denman, and not a little because of the supposed religious influences governing the continental accoucheurs, as Baudelocque impressed the French and Italian schools with his profound convictions on the subject of baptism, which were distasteful to the anti-Catholic views of the Saxon, who was equally strong in his belief that the life of the mother should never be weighed as against her unborn infant. Whatever may have been the cause, the Caesarean section found no home in Great Britain. May we not hope that the murderous sacrifice of so many infants will cease hereafter under the beneficent workings of laparo-elytomy. Had I been sooner permitted to know of this paper of Prof. Thomas, it would have been very gratifying to enter more into its merits, as well as details of the methods, indications, and performance of the Caesarean section, the Sigaultian symphysiotomy of the pubes, and the exsection of the branches of the pubic bones, first described by Aitken in 1785, then proposed by Desgranges and Champion, and afterwards performed by Prof. Catolica, of Naples, in 1825. This operation consisted of sawing out the horizontal rami of the pubes (bi-pubotomy); but the patient succumbed from peritonitis, and a dead child was delivered.

Whatever was hoped from these divisions of the pubic symphysis, as well as the removal of the pubic bones, resulted unfortunately; but they furnish most interesting chapters in the history of obstetric surgery. With regard to this operation of Prof. Thomas, of laparo-elytomy, I wish to show that to him alone belongs all the credit for the new era inaugurated by its performance. Since his first paper on the subject in 1871, it has been frequently said that it was Ritgen's

method, and for that reason I have particularly investigated the history of the procedure. It might as well be called Physick's and Baudelocque's (nephew). All three of these surgeons have proposed similar methods, but it is doubtful if any of them ever succeeded with it on the living woman. In fact, it is well known that in Baudelocque's operation (exactly as is Prof. Thomas's) he made a most signal failure, and had to complete the delivery by resorting to section through the linea alba.

Moreau, in his great work on midwifery, first published in 1840, speaking of the different methods of performing the Caesarean section, records four different operations: "1st. That of Levret, or rather Rousset, which consisted in dividing the abdominal parietes parallel to the outer edge of one of the two recti muscles, preferring the left, at an equal distance from these muscles, and another line drawn from the extremity of the third false rib to the superior spine of the iliac bones. 2d. That of Mauriceau, adopted by Platner, Solayrés, Deleurye, and Baudelocque, in which the incision was made in the linea alba. 3d. That called after Laverjat, although known prior to his time, consisting in a transverse incision from the outer edge of the rectus muscle to a level with the anterior superior spine of the iliac bones. 4th. Lastly, that which consists in making an incision parallel to Poupart's ligament from the spine of the pubes, beyond the anterior superior iliac spinous process, pushing back the peritoneum from the iliac fossa into the cavity of the pelvis, opening the upper part of the vagina, bringing the os uteri opposite to the wound in the belly, and then abandoning the delivery to the efforts of nature alone, or assisting her either by the hand or the forceps."

After considering the three first described efforts, Moreau says: "The idea of those who wished to isolate the peritoneum and the organs contained in it, in order to prevent their injury, is worthy of all praise; but we do not see how this method is exempt from the objections made to the others. Is not equally acute inflammation liable to follow the tearing up of the peritoneum, as an incision made through it? Effusion into the abdomen, indeed, is not to be apprehended; but can this plan be readily followed in practice? Baudelocque the nephew, who attempted it once, failed, and was obliged to resort to Caesarean section properly so called. And again, who will guarantee that, after its separation, the peritoneum will not be lacerated at the time of the passage of the child's head?"

These objections have been answered by the successful issues in the hands of Professors Thomas and Skene. In a supplementary paper by Paul Dubois (tr. Desormeaux's article on the Caesarean section, in the *Répertoire Général des Sciences Médicales*, Paris, 1834), this distinguished accoucheur took very adverse grounds to this procedure. He says: "Since the publication of the article several new methods have been proposed hitherto unknown, which consist in the operations of Ritgen, Physick, and Baudelocque. Ritgen's method consists in an incision transversely dividing the great muscles of the abdomen above the iliac crest, and a separation of the peritoneum down to the superior strait, and then to divide the upper portion of the uterine neck under the serous investment. The procedure of Baudelocque (nephew) is in cutting parallel to Poupart's ligament, terminating at the anterior superior spine of the ileum, either on the right or left side, opposite to the uterine inclination. After dividing the abdominal walls and securing the epigastric artery, the operator rolls the peritoneal re-

flection of the iliac fossa up from the excavation, and frees the superior portion of the vagina, which he opens sufficiently to give free passage to the fetus. A finger is then carried through the wound, by which the uterus is tilted towards the opening, whilst an assistant presses the body of the organ in the opposite direction. With the os uteri presenting to the wound, if the contractions are sufficiently energetic, the labor may be left to unassisted nature; otherwise the cervix should be dilated with the fingers, and the infant withdrawn either by the hand or by the forceps. The procedure of Physick is a combination of Ritgen's and Baudelocque's, and consists in an incision immediately above the symphysis pubis, a separation of the peritoneum from the bladder, and a diversion of the uterine neck.

"We have described these operations, because it was proper so to do, but we do not believe that they offer any advantage or possess any superiority over those hitherto performed. In fact, they present difficulties and dangers from which the others are exempt.

"An incision through the body of the uterus, as is done in the ordinary operation, opens an easy mode of egress for the fetus, and does not delay the operator or endanger the infant's life, or increase the mother's perils. Whereas, an incision made in a narrow compass much more limited and more difficult to reach, renders the operation extremely hazardous and makes the inconveniences inevitable. In opening the anterior wall of the uterine body, in dividing the great blood-vessels ramifying in its texture, there is undoubted danger of hemorrhage, but the energetic contractility of this portion of the uterus renders the danger a minimum. *On the contrary, by opening the lateral region of the uterine neck, or the vagina, which contains numerous large plexuses of blood-vessels, and under circumstances where this contractility is wanting, we cannot avoid an almost certain serious hemorrhage, besides the additional dangers of Cesarean section performed in the ordinary way.*" Dubois then dismisses the subject and proceeds to point out various methods, indications, and cares for the performance of the older methods of gastro-hysterotomy.

From the condemnation of Ritgens, Baudelocque's and Physick's methods by contemporary obstetric surgeons, from their failure to make successful operations themselves, and from the fact that Prof. Thomas has succeeded in laparo-elytrotomy, I feel quite confident that the profession at large will accord him the merit due his skill, by hereafter designating it as "Thomas's operation."

**PHYSICAL SIGNS OF MADNESS.**—The celebrated Legendre du Saulle is contributing to the *Gazette des Hôpitaux* a series of papers on the physical indicia of that form of intellectual degeneration designated as *folie raisonnée* (mania without delirium). In a great number of cases, he observes, with the recent disposition of Dr. Macdonald, that the period of puberty is to be credited with the etiology of the phenomenon, while in others some anomaly of the genital organs or perversion of their function is the starting-point of the disease.

**SANITARY SCIENCE IN RUSSIA.**—A Russian Society of Public Health has been established at St. Petersburg, under the presidency of Dr. Zdekauer, who, at its inauguration on the tenth of February, paid the highest compliment to English sanitary science as far in advance of that of other European States.

## Original Communications.

### ON URINARY FISTULA IN THE ANTE-SCROTAL REGION.\*

By ROBERT F. WEIR, M.D.,

SURGEON TO THE NEW YORK AND ROOSEVELT HOSPITALS.

THE paper now presented to you is intended to call attention to a method, heretofore but little known, of treating fistulæ occurring in the ante-scrotal portion of the urethra. These fistulæ (excluding those of congenital origin), you are aware, can arise from peri-urethral abscesses; from direct violence, such as blows, incisions, and gunshot wounds; from sloughing produced by strings, etc., tightly tied around the penis; from the too long retention of a metallic catheter in the bladder; from the presence of a calculus in the urethra, etc.

In these latter instances the point of ulceration is generally close to the scrotum, where not only the weight of a catheter is mostly felt, but where also the narrowing of the bulbous portion of the urethra into the spongy part is most likely to impact a calculus, whole or broken. Further forwards, and near the meatus, fistulæ are met with, resulting from chancreous and chancroidal ulcerations; from paraphimosis; and sometimes from a peculiar follicular inflammation complicating a gonorrhœa. The fistulæ arising from the urinary abscesses following stricture, are more commonly found in the perineum, though cases occasionally present themselves with openings from the same cause, in the anterior part of the penis, as well as in more distant localities. In the treatment of penile or perineal fistulæ resulting from stricture, or complicated by the presence of such a contraction, the restoration of the calibre of the canal is evidently the first thing to be attended to. After this has been accomplished we may perhaps find to our chagrin, that the fine hair-like opening into the urethra will not close by any of the simpler methods of cure which may have succeeded in the treatment of fistulæ of much large size. The procedures that are rightly employed prior to any resort to operation are: first, to cut off all passage of urine through the fistula by teaching the patient to use a soft rubber catheter whenever he wishes to urinate, and to withdraw it after the bladder is emptied with the outer end tightly compressed or occluded, so that the urine left in the catheter will not escape into the urethra. This latter manœuvre is all-important, and the whole method, well carried out, often suffices to accomplish the healing of the opening. Second, if it should be found necessary to do more, the application to the edges of the opening of some irritant, such as the nitrate of silver, nitric acid, or tincture of cantharides, is to be tried. The latter remedy was highly recommended by Dieffenbach, who, prior to using it, dilated the small fistulous tract by inserting a piece of catgut in it for a few hours, in order that the irritating fluid should reach to the mucous membrane. Sometimes the red-hot needle, heated either in the flame of a spirit lamp or by the galvanic current, is of the most service.

Such remedies were tried in the following case, which came under my charge when I was connected with St. Luke's Hospital:

**CASE.**—Edward F. B., æt. 22, was admitted to St. Luke's Hospital March 18, 1874, Dr. George A. Peters

\* Read at the Meeting of the State Medical Society, Jan. 15, 1878.



being on duty, with the history that he had contracted gonorrhœa for the second time a few months previously, and that shortly after its appearance an abscess had formed along the course of the urethra anterior to the scrotum, which was opened by a small incision that had not yet healed. He had been two years before, in 1872, a patient in the hospital for the treatment of his first attack of gonorrhœa, and had then a urinary abscess and a subsequent fistula in perineo. This healed under proper treatment, but broke out again during the second attack of urethritis, so that he now, at the date of his second admission to the hospital, had two abnormal openings into his urethra—one antescrotal and one in the perineum. Examination showed that he had quite a tight subpubic stricture; and bearing in mind the results obtained by Ségalas in 1840, who dilated a perineal fistula to drain and cure an anterior one, and also by Ricord in 1841, who, as originally suggested by Dieffenbach, purposely made an opening in the perineal urethra to place at rest the anterior part—remembering this, I say, Dr. Peters wisely did external perineal urethrotomy, cutting through the perineal fistula. But as the wound of this operation gradually closed, some urine would escape anteriorly, and thus bathe and keep open the fistula there. When my term of service came, I found him with his two urethral openings, one from the abscess and one from the operation. The use of the rubber catheter to empty the bladder and keep the urethra free from urine, as before detailed, with the application of nitrate of silver, was resorted to with persistent care, and with as equally persistent want of success. A subsequent examination detected one or two slight so-called strictures of large calibre, and these were divided by Otis's urethrotome. The red-hot needle was also applied. All these means accomplished nothing. Dr. Sabine, who succeeded me in service, tried the vesical siphon as suggested by Grippat; viz., a soft catheter was left in the bladder with its external end continued by rubber tubing to a lower level than the bed. This had, however, to be abandoned on account of the cystitis that was excited by it. Another exploration then showed that the urethra near the yet open perineal wound was not up to a normal size, and this opening was consequently enlarged to divide this point, and also to allow of freer escape of urine. Dr. Little, another of the surgeons of the hospital, subsequently employed in the patient's behalf what is known as Dieffenbach's lace-suture, which is made by carrying a threaded needle around, and a little distance from, the freshened edges of the anterior fistula, in and out like the string of a purse—taking care, however, not to dip through the mucous membrane of the urethra, for that would have probably caused several minute fistulæ to form along the course of the thread. The thread was finally made to emerge at the same opening it entered, and its two ends were then tightly drawn together and tied. This had the effect to pucker up and snugly close the fistula. It is an operation which often succeeds, but here it failed. The most successful of the simpler operations for the cure of these fistulæ is the denudation of the edges over a wide extent with coaptation by sutures, preferably of silver. Czerny, in a recent paper on the subject, in the *Archiv f. klinische Chirurgie*, vol. xxi., p. 25, states that in twenty-three cases where this was done, seventeen cures were effected, and much prefers this method to the lace-suture. Unfortunately so few cases have been reported (Czerny could only collect less than sixty), and so many methods of operation have been proposed, that we are not at all able to enter statistically into this part of the subject. To return to our man:

The lace-suture having failed, as did also the freshening and ordinary suture (just alluded to), he again came under my charge in December of the same year. The anterior opening then admitted a large probe freely, and was situated about two inches from the meatus, and the other opening in the perineum was nearly one and a half inches in length, and through which he mired freely. A little time was occupied in testing the result of a device of mine to thoroughly exclude the passage of urine along the anterior urethra. This was done by passing a half-inch rubber tube, fastened at each end to a bandage around the waist, across the perineum, just behind the scrotum, somewhat snugly, but not painfully. By the moderate pressure of this the urethra was so closed as to entirely prevent any urine coming forwards. This expedient effected but little in healing the fistula, but it overcame to a marked degree in the patient a difficulty which is an important one in connection with plastic operations on the penis. I refer to the erections that so often pull upon and tear asunder the delicate flaps made in such operations. Usually they are combated with more or less success by the administration of camphor, lupulin, or by large doses of chloral or morphine, carried to a considerable degree of narcotism.

As we were now fairly driven to the consideration of a plastic operation for the cure of this obstinate fistula, this exclusion of the influence of erections was most fortunate. The next question to be settled was, what plan of operation should be chosen. The fault that is common to nearly all the simpler urethro-plastic operations from the time of Cooper and Earle, who in 1818 and 1819 were the first to perform such, to the present, whether the flaps be taken from the penis itself or from the prepuce, scrotum, thigh, or abdomen (Delpech), whether lateral or antero-posterior, glided or twisted, is, that the line of junction of the wound is either immediately over or so nearly adjacent to the fistula, that any leakage that may occur is likely to defeat the operation. Hence, other methods were to be entertained, and to appreciate their value a properly brief outline of them must be given (illustrated by diagrams).\*

The endeavor in all is to carry the suture line away from the fistula, and also to form large surfaces for adhesion, in order that a partial primary success may be rendered a complete one by subsequent granulation and cicatrization.

Arnaud, in 1857, tried to accomplish this by simply superimposing one short flap over another longer one, the skin surface of which he scraped off, having first, as all operators do, scarified the edges of the fistula.

Rigaud, in 1852, took a square flap just below the fistula, turned it up and over like a hinge, so that its skin-surface rested against the fistula. This left the raw surface outwards and exposed, to be covered in turn by two small lateral flaps drawn or glided over it. Sédillot, in 1859, modifying one of Dieffenbach's methods, made two lateral flaps, dissecting from the outside up to near the fistula, turned them over and sutured them in such a way that the ends of the threads could be carried out through the meatus urinarius, and finally covered the raw exposed surfaces by a flap from the prepuce. (See figure 1.)



FIG. 1.

\* Only a few are here reproduced.—W.

The best of these doubling or hinge flap operations is, I think, that known as Szymanowski's (figure 2), and was the one I decided to use. Its conception is

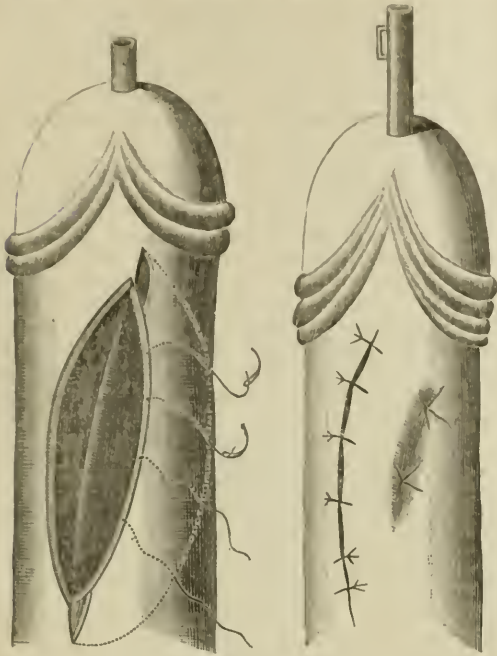


FIG. 2.

attributed to Langenbeck by Szymanowski, but the latter was the first to perform it.

The method consists in making a semicircular oval flap and dissecting it up to the edge of the fistula, after having first scraped off its epidermis, then turning it over and tucking it into a skin pocket formed by incising the skin along the other side of the fistula, and raising it up so as to make a receptacle for the first flap. Before the first flap is pocketed two or three points of suture are carried through its free edge and then through the skin at the deepest part of the pocket and finally tied externally. The loosened skin of the second incision is then drawn over, to cover up the gap caused by turning over the first flap, and secured by sutures. As copied from the hospital case-book, the details were as follows: "A straight incision was made coming close upon the left side of the fistula and extending nearly three-quarters of an inch above and below it. A second and crescentic incision, joining the first at its extremities and extending three-quarters of an inch to the right side of the fistula, was then made, and from each of these incisions the flaps were determined to the left, the skin between the two incisions having first been denuded of its epidermis by scraping it with a scalpel. Two fine silk sutures then turned over and drew the right-hand edge of the scraped skin under the inner edge of the left-hand flap, and secured the same there by being passed through and tied on the skin outside. Thus the freshly denuded skin covered over the fistulous opening and also rested upon a raw surface beneath, and in its turn, its own raw surface met a similar one above. The outer lips of the two incisions were now brought together by fine silk sutures, and the wound was dressed with a compress of lint and a bandage."

The deep surfaces united satisfactorily, but granulation closed a considerable portion of the superficial area. Five weeks after the operation total closure

of the fistula occurred, a delay of two weeks being caused by an extremely minute opening that threatened to be stubborn. No special treatment was given other than the continuance of the rubber tube. He left the hospital February 11, 1875, to return later for the closure of the perineal opening, which was done for him by Dr. T. T. Sabine, March 13th, by a modification of the above procedure, in making double flaps and dovetailing and pocketing them in a similar manner. Rectal puncture of the bladder was at the same time resorted to, to save the urethra from being flushed with urine, but the cannula inserted per rectum was not well borne, and was removed at the end of two days. The perineal fistula closed partially by first intention, and finally by granulation at the end of four weeks, the patient thus having been under treatment for his urinary fistula over a year. Czerny, in the article quoted, gives seven and a half months as the average duration of treatment in his numerous cases.

Since then this method of operation has been three times used with success: once by Dr. S. B. Ward, of Albany, and twice by Dr. McBurney, one of the surgeons of St. Luke's Hospital. To secure a more thorough denudation of the skin than was obtained by scraping it, Dr. McBurney in one instance blistered the skin a day or so prior to the operation; but not liking the working of this, in his second case he shaved off a thin slice of tissue with a sharp knife, with a happy result.

I have intentionally deferred until now calling attention to sundry other methods of operating for these fistulae, though they have been recommended by Erichsen, Thompson, and others. For instance, Dieffenbach (figure 3) proposed to close the edge of the freshened fistula after having detached it and the skin surrounding it from the subjacent tissues by means of two lateral incisions, which by this dissection communicated freely with each other. His idea was by this to allow the urine to escape easily through the

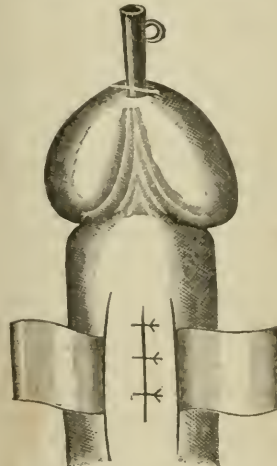


FIG. 3.



FIG. 4.

side cuts, while the sutured skin portion of the fistula closed, after which the recently made side openings were expected to rapidly close by granulation. Nélaton, in 1852, modified this "bridging process," as it is called, by making a small incision above or below (figure 4), and performing the dissection as much as possible subcutaneously.

I confess these methods do not strike me favorably, yet it must be admitted that no fixed rule can be set forth, as every case requires special study as to the



best manner to utilize remaining or adjoining tissues. Advantage may be derived in some instances by Reyard's (1856) or Delorme's (1874) (figure 5) method. These surgeons make large lateral flaps, bases outwards, whose raw surfaces are apposed over the fistula and held against each other not only by sutures at their edges, but also up to their bases, Reyard using the quilled suture, and Delorme interrupted ones, arranged like the tufts of a mattress—in fact, he calls them the “mattress suture.” Le Gros Clark, of London, makes use of flaps similarly held together. By the large surfaces thus brought in contact a greater chance of union is obtained.

While the statement incidentally made a short time since, that there was frequently more difficulty in closing a small fistula than a larger one, is true, yet there is to this a limit. For Pemberton, an English surgeon of eminence, has stated that there is no satisfactory record of a fistula being closed where more than one inch of the entire circumference of the urethra has been destroyed. Still, the recent successful urethro-plastic operations of Duplay (*Archives Générales de Médecine*, June, 1874), for the reparation of congenital absence of the urethra for several inches, leads me to hope that this dictum may be reversed.

Though particulars are wanting as to whether the urethra was totally destroyed in the space given, nevertheless Ricord's (1849) formation of a covering to a fistula of  $1\frac{1}{2}$  inches in extent moreover affords us an encouragement to the hope just stated. Also Earle's case, with a restoration of one inch, and Weinlechner's, of  $1\frac{1}{2}$  inches, are to be kept in remembrance before pronouncing as incurable a patient afflicted with a large fistulous opening into his urethral canal.

37 WEST 32D STREET, NEW YORK.

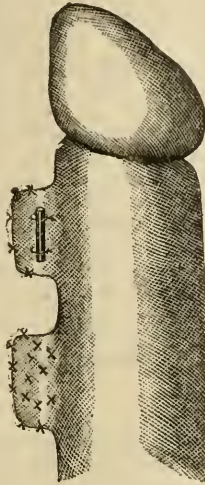


FIG. 5.

## A SUBSTITUTE FOR COD-LIVER OIL IN SKIN DISEASES,

ORIGINATING IN, OR ATTENDED BY MARASMUS.\*

By SAMUEL SHERWELL, M.D.,

MEMBER OF N. Y. AND AMERICAN DERMATOLOGICAL SOCIETIES, ETC.

It is well known that the “cake” which remains after the expression of linseed oil, is largely used by farmers and horse fanciers to fatten their cattle and horses, and to improve the appearance of their coats. This cake contains the principal nutrient albuminoid elements of the ground flaxseed, together with a varying proportion of the oil.

Having had of late a number of cases of cutaneous disease, in which marasmus from defective assimilation of the hydrocarbons was a prominent feature, and in which cod-liver oil was not well borne, it occurred to the writer that the oil of the flaxseed might prove an efficient substitute.

In its ordinary commercial condition, linseed oil is not a very palatable article of diet, but as met with in its natural combination in the fresh seed, is by no

means unpleasant to the taste. Believing that the same effects might be expected in the human subject as are known to follow the use of linseed in the lower animals, I have made it a portion of the diet of a number of patients who were unable to take cod-liver oil in the ordinary manner.

The better qualities of flaxseed contain about thirty per cent. of oil, so that by the use of the unpressed seed, a very considerable quantity of oleaginous matter can be incorporated in the daily diet. The seed may be used in several ways: First, the freshly ground seed may be taken in the mouth, and thoroughly masticated before swallowing; second, it may be given suspended in milk; and third, the unbroken seed itself may be used. This last method is the one that I prefer. To carry this out, I commonly direct the patient to carry in his pocket or other receptacle a quantity of the seed, and from time to time to take a little of it in his mouth, and to chew it thoroughly before swallowing, in order to insure complete insalivation. In this way some patients will consume several ounces a day, the amount, of course, varying greatly in different cases.

Thus far this use of the seed has not been attended with any disagreeable accompaniments. The stools are rendered easy and natural, without any tendency to diarrhoea, or other unpleasant complications.

The cases of pemphigus foliaceus, pityriasis rubra, lichen planus, and lichen ruber, which were some time since exhibited at the Society, have been taking the seed in the manner indicated with very decided benefit. It will be remembered that they were all in a more or less marasmic condition when first shown. During the use of the seed, however, they have greatly improved in general nutrition and in the condition of their skin.

The ordinary seed of the drug-stores is not the best that can be obtained for this purpose. A much better article being that known as Calcutta seed. Care should be taken that it is free from admixture with other seeds, chaff, dirt, etc.

As a substitute, in many cases, for cod-liver oil, we believe that it will be found, on further trial, to fully justify our earlier expectations concerning it.

In view of the fact that there is so much sophisticated cod-oil in the market, and that an inferior quality can be readily disguised under the form of an “emulsion,” a substitute that cannot be readily adulterated would seem to merit the consideration of the profession, and more especially that of dermatologists, in view of what I must consider its specific determination.

151 REMSEN ST., BROOKLYN, L. I.

## A CASE OF RECOVERY IN A CHILD, AFTER A POISONOUS DOSE OF CARBOLIC ACID.

By S. HENRY DESSAU, M.D.,

NEW YORK.

THE following case furnishes a remarkable instance of recovery in a child from a poisonous dose of carbolic acid. I was called in haste, Feb. 12, 1878, to see a boy  $2\frac{1}{2}$  years old, who had ten minutes before helped himself to about a teaspoonful of pure carbolic acid, equal in strength to Calvert's No. 2 preparation. The mother stated that immediately after the child had swallowed the acid he began to run around the room crying, when she took him in her arms, and he instantly became unconscious, turning livid in the face.

\* Synopsis of paper read before the New York Dermatological Society, Jan. 29, 1878.



his eyes staring, breathing slowly and noisily, and foaming at the mouth and nose. Sweet-oil was administered as soon as possible, and when I arrived he was still unconscious, breathing slowly and noisily, with a moan. The larynx was full of râles. His face was pale, cheeks livid, pupils dilated and not responding to light, and there were slight twitchings of the muscles of the extremities. The capillary circulation was very slow. There was a streak of excoriation upon the chin, where some of the acid had run. I gave more sweet-oil, and excited vomiting to a limited degree by irritating the fauces with a feather. Quantities of tenacious, partially coagulated mucus were expelled after each attempt at vomiting. The white of an egg was afterwards given. Consciousness was restored in a half-hour, and I left with orders to give frequently small quantities of milk and lime-water. I saw the boy again four hours later, when I was informed that about a half-hour after I left he twice vomited a large quantity of food that he had taken four hours before taking the acid. Shortly afterwards he again vomited a quantity of mucus mixed with arterial blood. I found him quiet and cheerful. I gave him small doses of subnitrate of bismuth and prepared chalk, to be taken every three hours. The next day I learned that he had not vomited since my last visit. He had been very restless and thirsty through the night. He had taken about a pint of milk and lime-water. His temperature in the rectum was 100° F. He occasionally coughed croupy. The throat was examined and the uvula found whitened and shrivelled. He had passed in the morning about a pint of clear urine, of a dark olive-green color, without odor.

Feb. 14th.—He was troubled in the night with a croupy cough, which has almost disappeared. Temp. 99 4-5° F. Bowels have not been moved since the day he took the acid. Tongue is coated, and he refuses food. Ordered him to have an enema.

Feb. 15th.—Bowels were moved after the enema, and the stools were of a greenish color. He is still a little hoarse, and, though cheerful, does not care for solid food. From this time on he was all right.

The urine was allowed to stand for five days before testing for carbolic acid. It remained clear and without odor up to the sixth day. When examined it was highly acid, of a dark, smoky color, and did not respond to the test for *free* carbolic acid, viz.: one per cent. watery solution of bromine. The bromine solution is a most delicate test for carbolic acid, showing a decided reaction in a solution of one drop to eight ounces. When the urine was slowly evaporated to dryness on a watch crystal and treated with strong nitric acid, there was a violent reaction, turning the residue first yellow, and afterwards red, and giving off distinct fumes of carbolic acid. These tests were kindly made for me by Mr. Geo. Kneuper, of Canal Street.

Dr. Ignazio Tortora's test for carbolic acid in the urine (*London Medical Record*, Nov. 15, 1877) was in part also used. He directs the urine to be gently heated, an equal part of nitric acid to be added, and then evaporated to dryness. The residue is then dissolved in alcohol, filtered, and treated with carbonate of potash. Picrate of potash, which is of a red color, is produced in solution. Tortora says in the article mentioned, that when urine, passed after taking carbolic acid, and nitric acid are gently heated together, yellow rings form in the capsule, which is a sure sign of the presence of carbolic acid. These rings were obtained by me upon the addition of nitric acid, without the aid of heat. These rings do not in-

dicate the presence of *free* carbolic acid, as no reaction was produced with the bromine, which is certainly a far more delicate test. The points of interest to be derived from this case are: the fact of the stomach being full at the time the poison was taken, and so distributing it that it was not all absorbed at one time, nor allowed to seriously erode the mucous membrane of the stomach; the absence of spasmodic stricture of the œsophagus, which symptom has been observed in numerous cases of poisoning from carbolic acid; the tendency of the acid in its action to paralyze the pneumogastric nerve-centre; and finally, the presence of the acid in the urine in the form of *carbulates*, and not as *free* carbolic acid, as demonstrated by the tests. Some of the acid is probably eliminated by the bowels, as their contents were of a similar color to the urine.

75 WEST 55TH STREET.

## Progress of Medical Science.

**INJURIES OF THE HEAD.**—Every practical surgeon knows the difficulty sometimes attending the diagnosis of injuries about the head, especially when the patient has been drinking before the receipt of the injury. An unfortunate answer to the question, "Is he drunk or dying?" has frequently brought upon our police surgeons no measured censure. In this connection it is interesting to note the opinion of so eminent a surgeon as Mr. Erichsen, who says there is not one absolute method of diagnosis, except by waiting to see the result. "It is impossible," he says, "for any physician or surgeon to discover off-hand and say what the exact cause of the symptoms of coma or compression of the brain may be. This diagnostic point cannot be established by any practitioner, however skilled, or however experienced, unless you give him time." In order to relieve the surgeon of responsibility, Mr. Erichsen suggests the establishment of wards for the reception of such cases, that they may neither disturb the other patients, nor die of neglect.—*The Lancet*, January 26, 1878.

**HYPODERMIC INJECTION OF DIALYZED IRON.**—Dr. J. M. Da Costa, of the Pennsylvania Hospital, reports an experiment of his own in the hypodermic injection of dialyzed iron in a case of anæmia, from which he concludes that extremely favorable results may be anticipated in such cases from the subcutaneous administration of the drug. The patient was an unmarried woman, twenty-one years old, with a history of hereditary lung trouble, but had never had rheumatism or malarial fever. Her digestion was fair, and she slept well, tongue pale, conjunctiva pearly, ears bloodless, rapid cardiac action, marked venous hum in the jugulars, total arrest of menses for three months. The nutrition had been excellent up to the date of admission. The daily quantity of iron injected was at first fifteen minims, diluted in water at the beginning, but subsequently given undiluted, and the treatment was continued for two weeks with a gradual advance to thirty minims per day; when menstruation reappeared, the unfavorable symptoms gave way, and the patient was pronounced cured. No abscesses resulted, nor was the slightest tendency to inflammatory action observed at the point of introducing the needle during the progress of the treatment. Dr. Da Costa argues from his success in this case, that the profession should give iron another trial in progressive pernicious anæmia.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## CHLOROFORM AND DENTISTRY.

NOTWITHSTANDING all that has been said regarding the dangers of chloroform for ordinary dental operations, there are still to be found dentists who are willing to take the risks. It is difficult to understand why this is so, unless it be that some members of the dental profession are determined to defy professional opinion and ignore recorded medical experience.

But, whatever may be the explanation, we are every now and then startled by the report of another death from chloroform in the dentist's chair. The latest of the kind comes to us from Philadelphia, and, as it helps to point anew an old moral, we give its history in some detail.

On March 20th, Mrs. Elizabeth Neely, of Hatboro, N. J., went to the office of Dr. H. G. Winslow, dentist, of Philadelphia, to have some teeth extracted. Dr. Winslow asked the patient whether she was in perfectly good health, and, upon her answering in the affirmative, at once proceeded to administer chloroform without making any previous examination of the woman's heart. Three teeth were extracted following the first administration of the drug. The Doctor again applied the anæsthetic and had extracted another tooth, when he was alarmed by discovering that his patient had stopped breathing. Electricity and other restoratives were at once employed, and several well-known practitioners called in, but their combined efforts could not resuscitate the unfortunate woman; she had died from heart disease precipitated by the incautious use of chloroform. Dr. Winslow at once surrendered himself to the authorities, and has been upon bail ever since. The Coroner's office was densely packed the other day upon the occasion of the inquest upon the body of Mrs. Neely. The Coroner's physician detailed the result of the post-mortem, which showed that the heart had been diseased. After the hearing of

all the testimony taken, the jury rendered the following verdict:

"We find that Elizabeth Neely came to her death March 20, 1877, at No. 224 North Tenth Street (Philadelphia), from chloroform, administered by H. G. Winslow, M.D., and we find the said Dr. Winslow guilty of criminal ignorance in administering so powerful a remedy without having made any previous examination of his patient."

Coroner Gilbert, addressing Dr. Winslow, said:

"Dr. Winslow, before discharging this case, I must perform a duty which I owe to the community as their representative in this office, and that is to censure you for using so dangerous a remedy as chloroform in so trifling an operation as the extraction of teeth, more especially when you have at your command a much safer substitute in sulphuric acid, and a perfectly harmless one in nitrous-oxide gas. You are not only to be censured for using chloroform in such a case, but also for using it without having previously made a careful examination into the physical condition of the various organs of your patient's system. Chloroform is a most powerful sedative, and far more dangerous to life than any of the other anæsthetics. On this account a number of hospitals have prohibited its use. The medical profession has, almost unanimously, settled down to the opinion that it should only be used in capital operations, and then only after the most careful examination. Although the verdict of the jury and this censure will not bring back the mother to the little ones, or the wife to the husband, it may be the means of directing the attention of dental surgeons to a more careful use of chloroform, and of the community—which is the party most interested—to the great danger attending its use, and thus perhaps similar accidents may be avoided in the future."

The accused was then committed by the Coroner to await the action of the grand jury.

The verdict in this case was an eminently proper one, and it is what might have been expected from the character of the testimony offered to the Coroner's jury. But it has an additional significance in connection with the fact that the jury was composed entirely of medical men. It is hard to arrive at any other conclusion than that the neglect to examine into the patient's condition, or even to feel her pulse, was not only culpable, but actually criminal. In this instance it would appear that death was the direct result of such negligence on the part of the gentleman administering the anæsthetic, inasmuch as a previous knowledge of the patient's condition, which an examination of the chest organs would have afforded, would have, or at least should have, ruled chloroform entirely out of the question. There is but little doubt that the grand jury will sustain the Coroner's verdict, and that the case will come up in the court for trial. There will then, doubtless, be brought up many interesting

scientific points connected with the case, which will invite further comment.

In respect to neglect of previously examining the patient, the case is similar to the recent Rahway tragedy, in which the boy died in the dentist's chair as the result of chloroform-poisoning. In that instance, however, the heart, and, in fact, all the organs of the body were in a healthy condition at the time, the only special contra-indication to chloroform being a full stomach, which condition was not ascertained previous to the administration of the anæsthetic. Although there was no doubt, from a medical point of view, that the boy's death was caused by chloroform carelessly administered it was difficult to prove that point, more especially as the prosecuting officer in that case did not seem to be equal to the occasion. As will be recollected, the line of defence was that of idiosyncrasy on the part of the patient, and the jury gave the prisoner the benefit of a doubt regarding that point. In the case of Dr. Winslow, however, it does not appear that such a defence can be urged, inasmuch as the heart was unhealthy, and of itself directly invited the fatal issue.

#### PAUPER LUNATICS IN ENGLAND.

It seems very doubtful, notwithstanding the somewhat rose-colored views of Dr. Wilbur, whether the pauper lunatics of Great Britain are any better provided for than ours. Not long since, according to recent medical advices, a deputation representing Leeds, Birmingham, and other large cities, had an interview with Mr. Selater-Booth, with the purpose of asking the government to give, with regard to paupers maintained by the unions, the same relief that is given to county asylums; and it was argued that if the pauper lunatics in asylums entitled those institutions to certain payments in the nature of subsidies, similar payments ought to be made on behalf of lunatics of the same class in the special wards of workhouses. In reply to the petitioners, Mr. Selater-Booth stated that the sum voted in 1875-76, to pay a subvention of four shillings a head for lunatics in asylums, amounted to 330,000 pounds per year, and that the amount to be found in the civil service estimates for that purpose for the year 1878, was 385,000 pounds, showing an addition of 55,000 pounds in the course of four years. Incidentally, the Commissioner supplied certain data for ascertaining the number of pauper lunatics in the poor-houses of London, by alluding to the state of facts existing there. He stated one instance, that 5,000 pauper insane were maintained in the London asylums for incurables, at a weekly cost per capita of seven shillings; but were a subvention of four shillings a head to be extended to the workhouses and poor-houses for the pauper lunatics confined in them, it would require 40,000 pounds a year for London alone, which, by calculation, provides for an aggre-

gate of 4,000 pauper insane in that city, for whom no special provision exists. This, according to expert estimates, is about three times the number not specially provided for in the whole State of New York.

#### THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL AND THE ABUSE OF MEDICAL CHARITY.

CONCERNING the present management of the out-patient department of the New York Hospital there appears to be but one opinion in professional circles. It is almost past belief that any board of managers of any respectable institution should, with such a set of rules, ever expect the countenance and support of its best friends. Perhaps, however, it dares to be ridiculous and absurd, because it presumes to be independent of popular or professional opinion. There is some ground for such a suspicion, from the fact that this board, from time immemorial, has been flattered and coaxed by many of the best men in the profession, until it would seem to be past the possibility of receiving any suggestion, or beyond the reach of any reasonable and respectful appeal. We believe, however, despite the recent action of the board concerning the protest of the East River Association, that some radical movement on the part of the profession will be made to bring up the matter for discussion again, with a view of effecting the necessary changes in the present management, and correcting the gross abuses of medical charity which are so directly invited by the existing regulations.

This out-patient department of the New York Hospital, although ostensibly established for the purpose of inaugurating the provident dispensary system, has, in reality, proved to be the greatest barrier to its realization. With a pretence of cultivating a certain amount of self-respect among those who can afford to pay only a small fee, it opens the door for the most bare-faced frauds, not only upon the profession, which always freely gives to the really poor, but to the poor themselves, to whom, and only to whom, such services belong. The management of this out-patient department is at the bottom of the worst possible abuses of medical charity, and until its plans are changed there is no use to hope for any of the necessary reforms which might initiate a proper and practical provident system.

We have repeatedly said that there was no objection to the small-fee system for those who could not pay more, but even the governors of the New York Hospital, and particularly the gentleman who has the reputation of being the dictator of the board, have no right to establish the low fee for all classes of applicants, and thus set a merely nominal price upon first-class medical services. It would have been eminently proper for the board to have striven to solve in a practical way some of the problems of the provident system. With abundance of means at its command,



and with the advantages of making new rules to suit a new administration, there was nothing to stand in its way. But instead of so doing, it has ignored all the rights of the profession, placed a premium upon fraud, and lost sight of every other consideration save that of adding to an already enormous income.

The profession asks for so little in this matter, it is surprising that its wishes were not long ago anticipated rather than ignored, as in the case of the East River Medical Association. Perhaps the committee of the County Society which has the matter now in charge may be more successful when it gets ready for work. If the proper spirit is shown, and the right determination manifested, there is no reason why some report should not be made at the next meeting of the Society. In the mean time it may not appear presumptuous to ask its opinion concerning the following articles which appear in the printed rules governing the admission of patients:

"All persons without distinction are entitled to receive the benefits of this branch (out-patient) of the hospital service, subject only to such regulations as may be deemed expedient." . . . . "Applicants will be furnished with a card of admission which will give the privileges of the service for one month." . . . . "The price of the card of admission will be \$1.00. Prescriptions will be put up for 10 cents each." . . . . "All patients from the country will be furnished with a written diagnosis of their disease, which will be directed to their local physician, with suggestions as to proper treatment and remedies."

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

#### SECTION OF THEORY AND PRACTICE OF MEDICINE.

*Stated Meeting, March 12, 1878.*

DR. E. F. WARD, CHAIRMAN.

#### THE DIAGNOSIS AND TREATMENT OF DIPHTHERIA.

A REGULAR meeting of the Section was held at the rooms of the Academy, 12 West 31st Street, on Tuesday evening, March 19th, when the Chair announced the subject for discussion as above. It had been expected that Dr. T. H. White would read a paper on diphtheria; but, unfortunately, he had not had the time to prepare it, nor was he able to be present to state his views.

DR. ALEXANDER HADDEN was the first speaker. In order to open the discussion, he said he would ask a question, viz.: Is diphtheria a disease *per se*, or is it an affection which is superinduced upon a previously inflamed condition of the mucous membrane of the throat or other parts? From the tone of a number of papers that have of late appeared in the medical journals, he would be led to infer that it was to be regarded merely as a local condition which may supervene upon any inflamed surface, and which would bear much the same

relation to that part that erysipelas or gangrene would to an ordinary wound. These papers, he went on to say (and he mentioned those of Drs. Jacobi and Billington particularly), leave us somewhat in doubt in regard to the matter. At first they seem to speak of diphtheria as a distinct disease, but afterwards to regard it largely as merely a condition, and local in its manipulations. As for himself, he would be inclined to believe that it is a disease in itself. The principal grounds for that opinion were found in the fact that though the local symptoms might be of a very trivial character, the affection might still be attended or followed by the most serious troubles, such as violent nephritis, enlarged liver or spleen, paralysis, etc., as he himself had not infrequently observed. He thought that the mere local lesions were quite insufficient to account for the after-symptoms, and he had never heard of a case of simple or follicular tonsillitis being followed by paralysis. Yet he had seen the most extensive paralysis result from very slight cases of diphtheria, and he had also observed the same phenomena in children who had had no pseudo-membranous exudations whatever upon any portion of the mucous membrane (as far as could be observed, or even suspected), but who belonged to families some other members of which exhibited the ordinary symptoms of diphtheria. He mentioned a case in point, that of a child three years of age. Nephritis, too, was very common, even where the local lesions were not at all well marked.

There was another class of cases, on the other hand, in which the local symptoms were of the most violent character, and accompanied by a very high degree of temperature. In these gangrene frequently set in, and death occurred very rapidly—sometimes in forty-eight or fifty hours from the commencement of the attack. In these he could easily understand how a septicæmic condition had been caused; for death could not be attributed either to asphyxia or to interference with the cerebral circulation, the lesions being usually confined principally to one side of the throat, and, therefore, not offering sufficient obstruction to prevent venous return from the brain.

DR. J. LEWIS SMITH said that, as regards grave constitutional symptoms in connection with very slight local lesions, he could recall two striking cases in which there was scarcely any pseudo-membrane in the fauces, and no catarrhal symptoms sufficient to account for any deposit at all upon the Schneiderian membrane, and yet in which, at the same time, the most violent nephritis was going on. One of the children barely escaped with his life, and the other one died from total suppression of urine. In his experience he had found that it was exceedingly common for diphtheria to attack the kidneys.

As regards the character of the affection, he thought that all the best authorities now admitted that there were two distinct forms of it, viz.: the idiopathic and the secondary. The latter might occur whenever there was any inflammatory condition of the mucous membranes, and not infrequently supervened upon scarlatina, pertussis, and typhoid fever. If the disease occurred in the idiopathic forms, its local manifestations would also perfectly show themselves whenever there happened to be any irritated or inflamed surface at the time, as, for instance, from bronchial catarrh, or the action of a blister.

DR. WARD stated, in this connection, that during the late war, when scurvy broke out in the army before Port Hudson, he not infrequently noticed the appearance of diphtheritic patches upon the surfaces of scorbutic sores. In some cases the throat was affected

and in others entirely free from any diphtheritic appearances. Typhoid fever was also prevailing in the camp at the time.

Dr. SMITH then went on to speak of the treatment of diphtheria, which, he said, must ever be a subject of the greatest interest and importance to practitioners, and especially at this time, when, as far as he could judge from the recent increase of cases in his part of the city, another epidemic of the disease seemed commencing. In the first place, he wished to state distinctly that he did not believe that we had any specific for diphtheria, in the sense that quinine is a specific for malaria, though a number of so-called specifics had been from time to time urged upon the attention of the profession. Among these might be mentioned bromine, cubebs, the sulpho-carbolate of soda, and, more recently, alcohol, as advocated by Dr. Chapman, of Brooklyn, in a paper read before the Kings County Medical Society. In a letter which Dr. Smith had just received from Dr. C., he stated that he believed alcohol was as much a specific for diphtheria as quinine is for intermittent. If called in during the first day or two of the attack, he thought he could save every case by the administration of alcohol in intoxicating doses. In the monograph which he read before the Kings County Society, he reported a series of cases treated in this way, in which there was but one death out of sixty-five, and in a series of cases observed subsequently, but one death out of forty. Dr. Smith thought that we were hardly justified in calling any remedy a specific, for the reason that the agents which had been claimed as such, and all of which seemed to have produced such admirable results, were entirely dissimilar in nature, and acted in an entirely different manner. In the last two or three years, he said, we had some six or eight *specifics* offered us; but, of the whole number of remedies proposed, he was inclined to think that alcohol approached more nearly to a specific than any other which we have at our command at present.

Dr. Smith then made the statement that the more he saw of diphtheria, the more he felt compelled to depart from Ertel's views that it is primarily a local, and only secondarily a constitutional affection. He could not but regard it as a general disease, the germs or contagium of which are transmitted to the patient by means of inspired air. He therefore thought it was just as useless to look for any specific (that is, any remedy that will absolutely cure it or abort it) as for scarlatina, measles, typhoid fever, or any other such idiopathic disease; and could see no reason why we should be more successful in finding one for this affection than for any of the others. If another epidemic were about to begin in this city, he intended to give Dr. Chapman's plan of treatment a thorough trial, because, with his present views upon the subject, it seemed to him to offer the best chance of good results. His method was to administer a teaspoonful of brandy every hour or even every half-hour, to a child one or two years old. Under ordinary circumstances, of course, this would produce marked intoxication; but, on account of the depressing influence of the diphtheritic poison, he had found that children would tolerate an exceedingly large quantity of alcohol without any such effect being produced. Personally, he had employed the treatment in a number of cases during the past month, and he had had every reason to be greatly pleased with it. At the same time he would not give up such agents as iron and quinine; but he thought that we should now abandon all forms of local treatment which will cause irritation and an increased area of redness, for by their use, as has now been already

demonstrated, we only increase the area of exudation. We should, therefore, employ only such local remedies as are not at all irritating to the mucous membrane. Disinfectants were particularly called for when there was a gangrenous state of the exudation, for the reason that the patient was constantly inhaling the deleterious gases which were given off by the sloughing membranes. He thought it utterly useless, however, to employ local measures for the purpose of aborting the disease, under the idea that it was at first merely of a local character; for he did not by any means believe that such was its nature.

Dr. HADDEX stated that he frequently met in consultation gentlemen who believed that follicular tonsillitis, membranous croup, and what is more strictly regarded as true diphtheria, were all of the same character, and should all be treated by means of tonics and stimulants, and that he should like to have some information on the subject. In his experience, some cases of real diphtheria were well treated by means of alcohol; but what he considered as membranous croup was not well treated with alcohol.

Dr. SMITH replied that he did not believe it possible at the present time, in this city, to make a differential diagnosis between membranous croup and diphtheria, on account of the comparative prevalence of the latter here. He regarded local measures (and particularly the steam-atomizer) of the greatest possible importance whenever the larynx was invaded by the deposit of false membranes. He was of the opinion, however, that croup and diphtheria were two entirely distinct affections. During the period from 1804 to 1857, when diphtheria was entirely unknown in this city, there were cases of membranous croup continually occurring.

Dr. W. T. WHITE mentioned that up to 1857 there was no such disease as diphtheria recognized in New York, and Dr. Smith thought that it was a strong argument for the difference of the two affections, because croup was observed constantly while there was no diphtheria whatever. He had recently conversed with a physician from Onondaga County, who told him that he saw, on an average, about three cases of membranous croup each year, but that there was no diphtheria at all in that region of country. In his great work, which appeared many years ago, when diphtheria was practically unknown, Rokitsansky had distinctly stated that every mucous membrane was liable to croupous exudation, a statement that was based on the observations derived from thirty thousand autopsies. At the present time, however, when a practitioner reports having seen more than four or five cases of membranous croup, it was certainly questionable whether they were not really cases of diphtheria.

Dr. C. E. BILLINGTON thought it was a matter of great practical importance to clearly distinguish diphtheria from follicular tonsillitis, and one in which there was a good deal of confusion in the minds of some practitioners. In follicular tonsillitis the patches covered portions of the tonsils, but the margins differed from those in diphtheria, in which they are red and angry-looking. In follicular tonsillitis the patches disappeared very rapidly, leaving little excavations, which are characteristic of this affection and seen in no other. The rapidity with which they disappeared was so constant that in any doubtful case the diagnosis could be made perfectly clear by waiting a day or two, and in several instances he had resorted to this plan. To decide definitely upon the appearances in any given case often required a good deal of practice, and experience was the only safe guide in making such a diagnosis. When one has seen something of both affections, how-



ever, it was usually not at all difficult to distinguish the definite membranes of diphtheria from the creamy and pulpaceous patches of follicular tonsillitis.

Dr. E. D. HUDSON, Jr., asked Dr. Smith if, when diphtheria was epidemic, the type of any ordinary sore-throat was not liable to become changed into diphtheria; when the latter replied that follicular pharyngitis was not only more apt to become diphtheritic than simple pharyngitis, and not nearly so much so as the scarlatinal variety. He did not doubt, however, that almost any form of angina might become diphtheritic under certain circumstances. In regard to the differential diagnosis of diphtheria there were two affections liable to be mistaken for it, viz.: follicular tonsillitis and the formation of a fungoid or vegetable growth upon the inflamed mucous membrane of the fauces. The latter was easily distinguishable, because this growth could easily be scraped off from the surface where it appeared. In follicular pharyngitis the white substance, as he had noticed it, appeared around the different follicles. If a patch were a quarter or half an inch in diameter, and penetrated the mucous membrane, he would be disposed to believe that it was a case of true diphtheria. So in ordinary croup, the exudation did not penetrate the mucous membrane, while, as had just been stated, this was always the case in diphtheria. There was also a line of demarcation. Still, in each affection the membranes were fibrinous, with epithelial cells between their meshes, and he did not believe it possible to make a differential diagnosis between them at the bedside.

Dr. HADDEN—"Then you would at once put the patient upon alcohol and other supporting treatment, whether you thought the case one of croup or one of diphtheria?"

Dr. SMITH—"Undoubtedly, though I should also attend carefully to the local treatment (especially the use of steam-inhalations) as of the very greatest service."

Dr. BILLINGTON said that it was now granted by the best authorities (whatever might be their theories as to the nature of diphtheria) that most of the cases of croup occurring at the present time are diphtheritic. He had seen cases of diphtheria in which the symptoms were very severe, and yet the amount of exudation apparently very slight; but in such cases he believed that there was always a good deal of membrane in such positions as to be invisible, as, for instance, upon the posterior surface of the tonsils and the soft palate. In several instances where he had suspected this to be the case, he had succeeded in washing out considerable quantities of membrane by thoroughly syringing the parts. He was in the habit of using copious injections of tepid salt water, which was not at all irritating to the surfaces.

The fact that diphtheritic exudation occurs in other affections, and supervenes upon wounds or ulcers, was suggestive to him that the contagium of the disease (whether chemical or organic in its nature) acted locally. It was well known that absorption was favored by a denudation of the epithelium, and it seemed to him that the point where the contagium was deposited was the local origin of a constitutional disease.

Dr. SMITH differed from Dr. Billington in this matter. He said that he understood that now, contrary to the former teaching, the best authorities held that, when a chancre made its appearance, the constitution was already affected with syphilis. So in vaccination, when the characteristic vesicle appeared, the system was under the influence of the vaccine poison, or ferment, or whatever it might be called. It could not be doubted that, in a certain proportion of cases at least, the diphtheritic poison was conveyed into the

system by inhalation, and he was therefore of the opinion that, when the membranes appear in the throat, the general system is already affected.

Dr. BILLINGTON thought there was one point in which the analogy between small-pox, or vaccinia, and diphtheria, instituted by Dr. Smith, did not hold good, and that was this: in small-pox it was impossible to cut the disease short, while he believed this was possible in diphtheria by the appropriate use of local measures. He was confident that he had been able thus to shorten and actually cure a great many cases, though, of course, others might not agree with him in this; and he urged upon the profession the more careful recording of the grounds for diagnosis and the history of all cases of diphtheria.

Dr. WARD mentioned another point in which he thought Dr. Smith's analogy was defective. The having had syphilis or small-pox once was supposed to be protective against future attacks, but this was not the case with diphtheria.

Dr. SMITH replied that it was possible to have erysipelas twenty times, and yet it was a constitutional disease. Also, like diphtheria, it had no fixed period of duration. He had seen instances of scarlatina get well in three or four days, and sometimes in such cases he was on the point of reversing his opinion, under the idea that he had made a mistake in the affection, when the occurrence of one of the well-known sequelæ of this disease showed that the diagnosis had been correct.

After some remarks on the clinical history of diphtheria, Dr. HADDEN gave a sketch of the plan of treatment which he is now in the habit of employing. If he saw the case early, he said, he usually produced free purgation by means of calomel, after which he relied simply on local measures. He had given up the employment of quinine entirely (until the patient had become convalescent), as he now regarded it as worse than useless. He had formerly employed alcohol freely, but as his patients frequently died while taking it, he had given that up also. His great reliance was upon keeping the affected parts thoroughly washed by means of a Davidson syringe, the injection which he usually employed being a mixture containing fifteen or twenty drops of bromine to the pint of water. He also depended a good deal on the local application of persulphate of iron in glycerine (a half-drachm or drachm to the ounce). If there was any phagedæna, he was in the habit of brushing the parts with Prof. Wm. H. Thomson's solution of bromine. Since adopting this plan of treatment, he was happy to say that he had met with highly satisfactory results in his diphtheria cases. He had had two recoveries from membranous laryngitis after tracheotomy, the second of the two cases being, apparently, an exceedingly unfavorable one. In this case he had injected iron and glycerine (of the strength of a drachm to the ounce) through the tube. He had used the application as freely in this manner as upon the tonsils, and it had the effect of dislodging the membrane, which had extended below the seat of the operation. In another case of tracheotomy performed the same day, in which no injections were made through the tube, the patient died.

Dr. HUDSON thought it possible that Dr. Hadden's apparent success in diphtheria, by the method which he had detailed, might really be due to the season. It was well known that, during the last year or so, diphtheria had not been nearly so fatal in this city as for three or four years previously. Dr. Thomson at one time met with quite a long series of uninterrupted successes with his bromine treatment; but suddenly

he lost three or four cases almost at once, notwithstanding its employment. He was in favor of employing both local and constitutional remedies, and thought the practitioner who neglected either class laid himself open to criticism. Among the former he included all the various disinfectants which have been found of service. He was also inclined to think that in some instances the disease might be aborted, and then related a case by way of illustration. It was that of an adult living on Seventh Avenue, who had a violent chill and marked constitutional disturbance, and the excessive engorgement of whose throat led him to expect a case of diphtheria of the most serious character. Under the use of heroic and often repeated doses of quinine, however, and the constant application of the cold spray to the fauces, all the symptoms, both local and general, gradually subsided.

Dr. RANDALL stated that he was the family physician in attendance upon the cases which had been alluded to as having died under the care of Dr. Thomson. There were eight children in the family, and they all had diphtheria. In the first of the cases the exudation extended to the larynx, and the child died from suffocation. In the second case the disease was of a much more violent type, and Dr. W. T. White was called in consultation. The treatment consisted of chlorate of potassium, glycerine, and carbolic acid. Under its use the exudation seemed to break down in flakes; but it afterwards reappeared in the larynx, and the child died. The fourth case was the most violent of all. On returning from school one day, the child had a chill, which was followed by high fever; the temperature running up to 104 or 105 degrees. In twelve or fourteen hours the fever suddenly abated, but the child lived only thirty-six hours after the commencement of the attack. An enormous slough had formed within twenty-four hours from the initial chill. Six of the eight children died: two from asphyxia (on account of the exudation in the larynx), and four from exhaustion. Three of them had died when Dr. Thomson was called in consultation. He proposed an entire change in the treatment, and, in accordance with his advice, all the remaining children were brought under the influence of bromine. The bromine treatment was carried out thoroughly, and he himself made the applications to the fauces of the children; but, notwithstanding, three more of the little patients died. Thus, out of four children upon whom the chlorate of potassium treatment was employed, three died, and out of four upon whom the bromine treatment was employed, three died. The father, mother, and grandmother also had the disease, but recovered.

Dr. SMITH inquired if the urine of these children was examined, and Dr. RANDALL replied that he thought it had not, though there was nothing abnormal about its appearance in any of the cases.

Dr. SMITH then stated that in malignant cases albuminuria might be found as early as the close of the first day, though the urine was perfectly normal in appearance, having none of that smoky look which is so common in scarlatinal albuminuria. It was now his practice to examine the urine in every case of diphtheria that came under his care. In his experience, diphtheritic nephritis was an exceedingly frequent complication, and he regarded it as much more grave than the scarlatinal nephritis. Dr. Chapman's idea was that the early and free use of alcohol would prevent nephritis and other serious complications or consequences, and if it could be proved that this was really the case, the treatment would certainly soon be held in the highest estimation.

Dr. RANDALL remarked, in conclusion, that after

the unfortunate series of cases which had been described, he continued to use the chlorate of potassium and glycerine, with brandy punch given freely, and that he had not lost more than two or three cases out of quite a large number, many of which were quite as severe as some of those in the family in which such frightful mortality occurred.

## SURGICAL SECTION.

*Stated Meeting, March 12, 1878.*

Dr. STEPHEN SMITH, CHAIRMAN.

### REPAIR AFTER EXSECTION OF THE HIP-JOINT.

Dr. LEWIS A. SAYRE gave, as an illustration of the repair which might take place after exsection of the hip-joint, a detailed history of the case of Rosa Mullins, who was operated upon in Bellevue Hospital, September 29, 1875. The patient died March 4, 1878. The report consisted of the history of the case and notes as made in his private case book, also as written in the hospital records, was accompanied by a post-mortem report as dictated by Dr. E. G. Janeway, and a report of the microscopical examination as made by Dr. C. Heitzman. The morbid specimen accompanied the paper, and exhibited a most remarkable amount of repair which had occurred since the operation. It was the case to which allusion had been made by Dr. C. Fayette Taylor, in a paper read before the New York Medical Journal Association, February 15, 1878, and published in abstract in *THE MEDICAL RECORD* for March 2, 1878. From the hospital record, it was shown that, on October 30, 1875, the incision made in the operation was closed, and that the child could walk by the aid of a wheel-crutch. At that time there was a small open sinus on the posterior aspect of the hip, and that sinus remained open during life, but, at autopsy, it was found that it did not communicate with dead or diseased bone. The repair which had taken place gave to the upper extremity of the femur a most striking resemblance to the great trochanter neck and head of the healthy femur upon the opposite side. There was considerable motion about what might be called the newly-formed head, and the microscopical examination demonstrated the presence of newly-formed cartilage. From May 19, 1876, until November, 1877, Dr. Sayre did not see the child, and from the hospital record it appeared that no means were employed with the view of maintaining extension, from the first date up to the time the child died, and yet the lower extremities were of equal length. The liver, spleen, kidneys, and intestines had undergone waxy degeneration, and there was angular curvature of the spine, although there was no carious bone present. The liver was enlarged, and there was evidence of waxy kidney at the time the operation was performed. Notwithstanding the unfavorable condition of the child, it seemed very evident that the operation had been followed by most extraordinary repair, and in no sense could it be said that the child died because of its performance. On the contrary, Dr. Sayre believed that the autopsy proved that the operation was not only justifiable, but demanded even in cases in which it was evident that waxy degeneration of internal organs had already taken place.

Dr. C. FAYETTE TAYLOR remarked that he thought Dr. Sayre did not quite appreciate the object which was in view, when, in his paper, he referred to the case of Rosa Mullins, which had just been reported. Dr. Taylor had taken it for granted that disease had been reproduced at the seat of the operation, and he



did not see how any other conclusion could have been reached in absence of post-mortem examination, which at the time he read his paper had not been made. It seemed that the inference that the sinuses reached the joint was a mistaken one, as the specimen demonstrated. The specimen exhibited a most remarkable amount of repair. But what right had surgeons to assume that such wonderful reparative effort could not take place under other forms of treatment as well as after excision. After admitting all that was claimed for excision, Dr. Taylor still thought that a better record could be shown by more conservative methods.

The only point, however, which he wished to make in his paper, was that the operation of excision was unreliable with regard to ultimate results—that is, results a long time after the operation had been performed, and even the sinuses closed, at which time they were commonly reported as cured. He did not question the veracity of Dr. Sayre's report, but he simply doubted the reliability of the operation with reference to ultimate results.

Dr. SAYRE remarked that if disease could be produced in healthy bone, it could be much more easily developed in newly-formed tissue; but that fact did not in any way invalidate the claim that patients suffering from hip-joint disease were cured by the operation of excision. Of the seventy cases on which he had operated, twenty-three were perfectly well, recovery had taken place with less than one inch of shortening, and there was more or less of motion. In two cases, recovery had taken place with more than the normal amount of motion. In all these cases he regarded it as evident that the disease must be developed anew, if the patient again suffered from morbus coxarius.

Dr. Sayre then reviewed the statistics given by Dr. Gibney, and published in THE MEDICAL RECORD for March 2, 1878, and believed that an analysis of his own cases showed a marked result in favor of the operation, as compared with the results obtained by leaving the cases to nature.

Dr. STEPHEN SMITH raised the following question: In a case like the one reported, one of advanced hip-joint disease, with waxy degeneration of internal organs—one which had received no treatment, and, if left to itself, would probably not progress towards recovery—which would be the best method of treatment, excision or treatment by means of extension, liberating pus, etc.?

Dr. SAYRE believed that, if dead bone was present, excision, supplemented by proper mechanical treatment, was unquestionably the most proper method.

Dr. SMITH remarked that the dead bone would come away of itself after a time, and that the question was yet left, which is the shortest route to a cure?

Dr. SAYRE believed that the history of the case, and the specimen, showed that the operation was the best method of treatment. If the spine and hip had been properly treated, the general condition of the child would have been improved. No repair at the hip could have taken place until the dead bone was removed, and its removal could be effected much quicker with the saw than by leaving it to the slow process of nature.

Dr. POST asked, would not the disease of the liver and kidneys probably have been prevented had the operation been performed at an earlier date?

Dr. SAYRE replied that, undoubtedly, it would have been prevented.

Dr. POST remarked that, with regard to diseases of the bones, there were two points of practical importance:

1. Free outlet should be secured for all purulent discharge; and

2. Every source of irritation, which might arise from carious or necrosed bone should be removed.

Dr. TAYLOR remarked that he was not sufficiently satisfied that a case, such as reported by Dr. Sayre, could not be treated successfully without excision. He had treated a case which was in as bad condition as any case could be—treated it by extension mainly, and the patient had recovered as rapidly as recovery had followed excision. Whether more recovered under excision than under mechanical treatment, or more recovered under mechanical treatment than under excision, was a fair question for discussion; but he regarded it as hardly fair to assume that excision was the best method of treatment, in absence of a comparison with the results obtained by other methods of treatment. There was no question that cases occurred similar to that reported by Dr. Sayre; that was not the question at issue; but the question was, were all the facts relating to excision yet developed—were there not other facts which would materially modify conclusions that had been made regarding the value of the operation?

Dr. Taylor then presented the ratio of mortality that had occurred in ninety-four cases of morbus coxarius, which had received mechanical treatment and had been under continuous observation. Of this number, three had died of the disease, or the ratio of mortality was 3½ per cent. In a certain sense, those were selected because the doctor would not undertake the treatment of any case unless he could have it exclusively under his control. The representation, therefore, as a matter of course, was better than it would have been had it been based upon all the cases which applied for treatment. Of the ninety-four cases, twenty-five had abscess, either intra- or extra-capsular, or both. Of these suppurating cases, two, or 8 per cent., died.

Dr. SAYRE remarked that, from one of the facts just stated by Dr. Taylor, his statistics were worthless, for it was not known what became of the cases which were seen, and which did not remain under treatment.

Dr. TAYLOR remarked that he had no right to report except upon the cases which had remained under observation. The statistics were good as far as they extended. He did not regard the case as cured unless the patient was discharged with as good a joint as could be obtained.

Dr. JUDSON remarked that Dr. Taylor's statistics were interesting mainly with reference to those cases which he classed under abscess. It would be interesting to know what proportion of the twenty-five cases were proper ones for excision. Dr. Judson was of the opinion that a patient with a suppurating joint—one which would be regarded as proper for excision, if free discharge of pus could be given, would stand as good, if not better, chance of getting well with a long and useful limb, by the use of mechanical apparatus as by excision, which was an operation unquestionably followed by shortening, except in extraordinary cases.

Dr. POST remarked that necrosis or caries of the bone must be added to suppuration, to place the joint in the most unfavorable condition for recovery to take place.

Dr. TAYLOR remarked that even some of those cases recovered without any treatment.

Dr. SAYRE said that he had seen many cases of suppurating joint recover without excision.

Dr. SMITH asked Dr. Taylor if in such cases recovery was not usually with ankylosis.

Dr. TAYLOR replied that anchylosis did not necessarily result; after the head of the bone was destroyed, they were more apt to recover with motion.

Dr. GUNNEY referred to a case in which exsection was performed six months after the opening of the abscess. At the end of three years there was still active suppuration.

Dr. SAYRE remarked that the dead bone was not all removed, and as a matter of course suppuration would be continued as long as the dead bone remained. If dead bone was so situated that it could not be removed, the operation of exsection was not followed by any special benefit.

At a late hour the Section adjourned.

### OBSTETRIC SECTION.

*Stated Meeting, March 18, 1878.*

Dr. S. CARO, CHAIRMAN.

#### HEART-BURN, WATER-BRASH, AND VOMITING DURING PREGNANCY.

Dr. SELL referred to a case which was effectually relieved, after all ordinary treatment had failed, by the use of the *co. elixir of helonias*, or, as he used it, in the form of pills composed of *helonias*, *caulophyllin*, and *viburnin*. He regarded the remedy as a uterine tonic and sedative.

Dr. HALL said he had used oxalate of cerium for the same purpose, and had become convinced that the best results were to be obtained by the use of large doses.

#### FATAL HEMORRHAGE FROM THE UMBILICUS.

Dr. DOWNS reported a case in which fatal hemorrhage occurred from the navel of a child ten days old. The cord dropped off on the fifth day; the hemorrhage began on the tenth day. Dr. Downs saw the case in consultation; used Monsel's solution, and the hemorrhage was arrested; but the child was exsanguinated, and died within a few hours. The question arose, could not the blood-vessels have been ligated? At one time the attending physician was obliged to use pressure with the finger, in order to check the bleeding, the blood welling up from the navel.

Dr. POST thought that perhaps the vessels might have been ligated, or that the actual cautery could have been employed.

Dr. CARO related a case in which he arrested bleeding from the navel by lifting it up with a tenaculum, and embracing the whole substance with a piece of tape, which was tied tightly. The mother was suffering from chronic malaria at the time the child was born, and the child's liver was hypertrophied. The liver rapidly diminished in size after the bleeding, and Dr. Caro was of the opinion that the hemorrhage from the navel saved the child's life. The tape was allowed to remain eight days.

#### QUINCY SORE-THROAT ABORTED BY OPIUM.

Dr. J. C. PETERS referred to a case in which suppurative tonsillitis had occurred a number of times, each time resisting all efforts to cut the disease short, and in which latterly he had arrested the disease by the use of opium. He had administered Magendie's solution of morphine, in doses of five drops, repeated every three or four hours.

Dr. CARPENTER had noticed in a few cases, that, after tonsillitis had advanced to suppuration three or four times, the patient occasionally suffered from all the premonitory symptoms of quincy, but with-

out special treatment suppuration did not occur. Might it not be that, in certain cases, a kind of tolerance was developed, and that in Dr. Peters' case the apparent abortion was simply a feature in the natural history of the disease, rather than the result of any method of treatment?

Dr. PETERS suggested that repeated attacks of suppurative tonsillitis might give rise to more or less fibrous induration, thus diminishing the liability to the development of suppuration.

Dr. HALL referred to carbonic acid water as a gargle for the arrest of threatened suppuration of the tonsils.

Dr. O'SULLIVAN believed he had aborted cases of quincy sore-throat by the use of croton oil and turpentine externally, and nitrate of silver as an internal local application.

Dr. F. V. WHITE related a case which seemed to militate against the idea that repeated attacks of suppurative tonsillitis were followed by a tolerance of the disease.

Dr. DOWNS had been in the habit of resorting to free scarification as a means for aborting tonsillitis.

#### FOLLICULAR PHARYNGITIS AND TONSILLITIS.

Dr. J. LEWIS SMITH referred to cases of this affection, and remarked that, from their history, the thought had arisen in his mind that perhaps the disease was contagious. He made inquiry, therefore, with reference to that point. He had noticed that some writers spoke of "herpetic inflammation of the throat," and he made inquiry of Dr. Piffard as to what was understood by the term.

Dr. PIFFARD replied that he knew nothing of herpetic inflammation of the throat; that is, a disease which was analogous to any herpetic eruption upon the skin. It might mean an eczematous condition, similar to an eczematous condition of the skin; or it might mean little vesicles which sometimes appeared in the mouth, and when they ruptured a circumscribed erosion remained.

Dr. O'SULLIVAN referred to a family in which six children suffered from follicular tonsillitis and pharyngitis within two weeks. He had not, however, thought that it was contagious.

Dr. PETERS remarked that he had been quite familiar with the affection during the last thirty years. Thirty years ago it was very abundant, and was attended by marked prostration. He had not entertained the idea that it was a contagious disease.

Dr. POST had seen considerable of the disease, but did not regard it as a contagious affection.

Dr. CARO related the history of three cases occurring in one family, and believed them to be due to contamination of the house by sewer-gas. The plumbing was found deficient. During the winter he had seen a great deal of follicular tonsillitis between Madison and Fourth Avenues, and 59th and 63d Streets, a territory on which there was a great deal of made land and deficient drainage.

#### SCARLATINA ANGINOSA AND DIPHTHERIA.

Dr. PETERS referred to scarlatina anginosa, which appeared in great abundance some twenty-five years ago, and asked whether there was any difference between it and scarlet fever complicated with diphtheria of the present day. He was not able to recognize any difference, and did not believe there was any diphtheria in such cases, but that the condition of the throat was a part of the scarlet fever.

Dr. J. LEWIS SMITH believed that there were cases in which the patient had scarlet fever at first, and per-



haps at the end of a week or more true diphtheria supervened, and the case went on with diphtheria complicating the scarlet fever.

The Section then adjourned.

## Correspondence.

### THYMOL AS AN ANTISEPTIC.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR—Permit me to call the attention of your readers to the use of thymol as a substitute for carbolic acid in the antiseptic treatment of wounds. The injurious effects of the latter upon instruments, and its irritant and anæsthetic effects upon the hands of the surgeon, have prevented some from attempting, and others from properly carrying out this method. Thymol has not these disadvantages, and is, moreover, to be preferred to carbolic acid from the fact that the details of the dressing are less complex, the secretions less in quantity, the cost not so great (owing to longer retention of the dressings—although the price of the drug is considerably higher), and the duration of the healing process shorter. But one solution is necessary for all purposes, spray, instruments, sponges, etc. This is of the strength of 1 part thymol to 1,000 parts water, with the addition of a small quantity of alcohol and glycerine to increase the solubility of the thymol. The formula is

|            |              |       |                |
|------------|--------------|-------|----------------|
| Thymol,*   | 1.0 grammes. | ..... | or gr. xvss.   |
| Alcohol,   | 10.0         | "     | ..... " 3 iij. |
| Glycerine, | 20.0         | "     | ..... " ss.    |
| Aque,      | 1000.0       | "     | ..... " xxxiv. |

This makes a clear solution of agreeable odor. It does not irritate the wound surface, and hence the "protective silk" may be dispensed with. The gauze is made in the same way as the carbolized material, but spermaceti is substituted for paraffine, since the latter is believed to cause the erythema and occasional eczema of the skin about wounds. The proportions are 1,000 parts of gauze, 500 of spermaceti, 50 of resin, 16 of thymol.

The method of using this dressing is the same as for the carbolic acid. The carbolized cat-gut is retained, and rubber drainage-tubes still preferred.

My source of information in this matter is an article by Ranke ("Ueber das Thymol und seine Benutzung bei der antiseptischen Behandlung der Wunden") in the *Samml. klin. Vorträge* (No. 128), which contains an elaborate account of the chemical properties of the drug, with directions for using it, and a table of cases in which it has been employed. The author states that it is in every respect to be preferred to carbolic acid, and that since the first of this year it has almost entirely replaced the latter in the clinic of Professor Volkmann, at Halle. Fifty-nine operative cases are cited, chiefly of minor importance, but including several excisions of the breast, amputations of the foot and leg, excisions of the elbow, and kelotomies. In only two was there formation of pus. Olshausen has used the dressing in three ovariectomies without subsequent reaction.

I have used this material in only one or two minor cases, but can testify to its unirritating character and

agreeable odor. Some excellent gauze has been prepared by Messrs. Caswell & Hazard.

Respectfully,

WM. T. BULL, M.D.

26 WEST 33D STREET, April 6, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 6, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| March 30, 1878... | 0             | 2              | 77             | 0                          | 84       | 48          | 1          |
| April 6, 1878.... | 0             | 6              | 78             | 3                          | 116      | 58          | 0          |

ASYLUM ABUSES.—Report of the committee appointed by the Medico-Legal Society to memorialize the Legislature on the subject of Dr. Spitzka's paper, read before the Society February 6, 1878:

The committee appointed to memorialize the Legislature on the subject of Dr. Spitzka's paper on asylum abuses, read before the Society at its meeting February 6, 1878, respectfully report: That they met and duly considered the subject, and, as the result of their deliberations, forwarded to the Hon. I. I. Hayes a memorial, of which the following is a copy:

*To the Honorable the Senate and Assembly of the State of New York.*

The undersigned, a committee of the Medico-Legal Society of the city of New York, respectfully ask your honorable bodies to institute an investigation into the condition and management of the lunatic asylums of this State.

The committee has great reason to believe that the unfortunate inmates are, many of them, treated in a manner which is disgraceful to civilization, cruel, and barbarous, and not in accord with the present advanced state of medical science. In support of these allegations, which are made with all due solemnity, the committee not only (as directed by the Society it represents) appended a copy of a paper read by Dr. E. C. Spitzka before the Society at its meeting on the 6th inst., but it affirms its readiness to substantiate them by the testimony of experts in psychological medicine in all parts of the State and country, as well as by the declarations of eminent foreign alienists, and by comparison with like institutions in Great Britain, France, and Germany.

The committee asks the attention of your honorable bodies to the whole system by which the insane asylums of this State are managed, and especially to the State Lunatic Asylum at Utica, an institution against which grave charges have been made by responsible and competent persons.

The committee, therefore, for the accomplishment of the objects in view, respectfully requests your honorable bodies to appoint a Joint Committee of Inquiry, with power to take testimony, or to proceed in such other manner as to your honorable bodies may seem best.

\* In getting the equivalents of the measures of the metric in this formula there is an excess of 1-6000 gr. of thymol an 3 lss of water.

And your memorialists, as in duty bound, will ever pray, etc.,

JOHN C. HAMMOND, M.D.  
WILLIAM A. HAMMOND, M.D.  
D. S. RIDDLE.  
JACOB F. MILLER.  
EDWARD C. SPITZKA.

NEW YORK, March 18, 1878.

This memorial was introduced into the Assembly, accompanied by a resolution providing in the fullest manner for the appointment of a committee, with power to investigate the insane asylums of this State. There is reason to believe that the resolution will be considered by the Assembly within a short time.

The committee, however, is of the opinion that the efforts of the Medico-Legal Society should not stop here, and therefore begs leave to offer the following resolution:

*Resolved*, That a committee of six members, taken equally from the medical and legal professions, be appointed to take into consideration the subject of mechanical restraint in lunatic asylums, and to report to the Society what further measures are necessary to secure its abolition within the limits of the State of New York.

The committee would also recommend the passage of the following resolution:

*Resolved*, That the thanks of the Medico-Legal Society be tendered to the Hon. I. L. Hayes, for the promptness and thoroughness with which he acted in introducing into the Assembly a measure tending to ameliorate the condition of the unfortunate patients confined in the lunatic asylums of this State.

The report was accepted, and the resolutions were adopted.

The committee appointed under the first resolution was composed of Dr. William A. Hammond, Clarence W. Seward, Esq., Dr. E. C. Harwood, T. B. Wakeham, Esq., Dr. Thos. C. Fennell, and Cephas Brainard, Esq.

THE BROWN-SÉQUARD TREATMENT IN EPILEPSY.—The typographical error which occurred in the *Bost. Med. and Surg. Journal*, in one of the principal ingredients of the formula, and occasioned our being led astray, has been corrected by Dr. Ayer. It should read as follows:

R. Sodii bromidi,  
Potassii bromidi,  
Ammonii bromidi..... āā ʒ iij.  
Potassii iodidi,  
Ammonii iodidi..... āā ʒ iss.  
Ammonie sesquicarb..... ʒ i.  
Tinc. calumbæ..... f ʒ iss.  
Aquæ destillat..... ad f ʒ viij.

M.

Full dose: one and a half drachms before each meal, and three drachms at bed-time.

This is the special formula that Dr. Ayer mainly relied upon, though we are informed by Mr. Neergaard, of this city, that Dr. Brown Séquard modified it in a good many instances.

DEATH OF PROF. FRANCIS GURNEY SMITH, M.D., OF PHILADELPHIA.—Prof. Francis Gurney Smith, M.D., of the University of Pennsylvania, died at his residence in Philadelphia last Saturday. Dr. Smith was born in Philadelphia, March 8, 1818, and was the fifth son of Francis G. Smith, a prominent merchant. He obtained both his academic and medical education in the University of Pennsylvania, receiving his degree of Doctor of Medicine in 1840. For about a

year after graduating he was one of the physicians of the Department of the Insane of the Pennsylvania Hospital. In 1842, he was elected Lecturer on Physiology by the Philadelphia Medical Association. In 1863 he was elected Professor of the Institutes of Medicine in the University, and filled the chair of that professorship until his death. For six years, commencing in 1859, he was one of the attending physicians of the Pennsylvania Hospital. Prof. Smith is well known in medical literature as one of the compilers of the text-book, the *Compendium of Medicine*, which has passed through numerous editions; as one of the editors, for nine years, of the *Philadelphia Medical Examiner*; as the author of frequent contributions to professional periodicals; as the editor of American editions of Carpenter's and Marshall's works on physiology, etc., and as the first American translator of Barth & Rogers' *Manual of Auscultation and Percussion*.

COMPLIMENTARY DINNER TO MR. REGINALD HARRISON, F.R.C.S., OF LIVERPOOL, ENG.—During the visit of this distinguished gentleman to this city, he has been the recipient of many attentions from his medical friends, who have vied with each other in doing him honor. On Tuesday evening last, Dr. L. A. Sayre gave him a dinner at the New York Club. The particular compliment of the occasion was centred in the representative character of the gentlemen present. Allowing our natural modesty to make a single exception, it is safe to say that rarely on similar occasions and for a small company has more distinguished medical gentlemen been gathered together. The following sat down at the festive board: Dr. Fordyce Barker, Judge John R. Brady, Dr. R. Cauldwell, late surgeon of the Russia; Drs. Austin Flint, J. W. S. Gouley, Samuel W. Gross, of Philadelphia; Montrose A. Pallen, John C. Peters, Alfred C. Post, W. M. Polk, D. B. St. John Roosa, L. A. Sayre and his sons, Drs. Charles H. H. and Louis H. Geo. F. Shrady, Isaac E. Taylor, T. Gaillard Thomas, and William H. Van Buren. Drs. James R. Wood, Austin Flint, Jr., and Drs. Pancoast and Samuel D. Gross, of Philadelphia, also invited, were unable to be present, and sent letters of regret.

Numerous toasts were drank, and, as might have been anticipated, many admirable speeches were made. Mr. Harrison was entertained at luncheon on Wednesday by Dr. J. W. S. Gouley, at the residence of the latter, and in company with several distinguished medical gentlemen.

CLAUDE BERNARD.—A monument to Claude Bernard is to be raised in Paris by public subscription. The *Société de Biologie*, of which he was one of the founders, and for many years the President, has taken the initiative in the subscription. The list will be headed by the Minister of Public Instruction.

M. HIRTZ.—The death is reported of M. Hirtz, formerly Clinical Professor in the Faculty of Strasburg. He was the author of numerous and valuable contributions to medical science, his studies on digitalis, veratrine, and the antimonial preparations being particularly valuable. M. Hirtz was one of those who refused to remain in Strasburg after the city became part of Germany, preferring to lose his home and his professorship rather than change his nationality.

ADULTERATION OF FLOUR.—A miller in Einbungen, Germany, was condemned last month to three months' imprisonment, for mixing gypsum with his flour. One specimen of his flour contained 8.7 per cent., and another 13.7 per cent. of gypsum.



## Original Lectures.

## LECTURES ON FEVERS.

By ALONZO CLARK, M.D.,

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(Reported for THE MEDICAL RECORD.)

## LECTURE III.

TYPHOID FEVER (CONTINUED)—TREATMENT—BASTARD TYPHOID FEVER—EPHEMERAL FEVER—CESSPOOL FEVER—TYPHO-MALARIAL FEVER.

GENTLEMEN:—In the treatment of typhoid fever you cannot be too careful to have an abundance of *fresh air* admitted into the sick-room, both for the benefit of the patient and for the safety of those who are attending him. I never fail, except under circumstances which render it impossible, to have a window on the side of the room opposite the patient dropped a certain distance from the top, even in the winter season, and then make the patient comfortable by bed-clothing, and protect him from a draught of air by the use of a screen. You may remember what I said with reference to fresh air in the treatment of typhus fever, and I value it quite as highly in the treatment of typhoid.

There are a few other considerations which must be mentioned. First, of *bed-sores*. These are likely to come upon certain parts of the body which specially press upon the bed, and there is no remedy so effectual for their prevention and treatment as the water-bed. The water-bed equalizes the pressure of the body, and allows the sores to heal, whether they occur in consequence of fever or in consequence of paralysis. If the water-bed cannot be obtained, about the best substitute is the padded ring or a rubber ring filled with air. There is no wash, no plaster; there is nothing, except to relieve the part from pressure, which will prevent the occurrence of these sores when once they commence, or allow them to heal when they have been formed. When one threatens to form upon the heel, remove all pressure from that part by placing a proper support under the calf of the leg. When they threaten to form over the scapula, some kind of support must be placed under the back and along the spinal column, so that the weight will be removed from the part threatened. These bed-sores increase the danger and complicate the disease in proportion to their extent.

For the *tympanites*, Hasse, of Sweden, in giving a summary of 3,000 cases, attaches a great deal of importance to the application to the abdomen of cold compresses, and covering them with oil-silk. He thinks that this application exerts a derivative influence such as prevents, to a certain extent, the formation of ulcers in the intestines. The Peyer's patches situated nearest the ilco-cæcal valve are affected earliest and most constantly. From that point the disease advances upwards, and Hasse thinks that by the use of cold wet compresses the development of ulcers in the upper part of the small intestine is prevented, and the tympanitic distention of the bowels is diminished.

In some cases the distention of the bowels becomes so considerable as to be the cause of a great deal of distress; the diaphragm is crowded upward, and breathing is very much embarrassed.

Under such circumstances, several expedients have been resorted to for the relief of the patient. Commonly some moderately stimulating injection will be found to be of service. An injection of half a pint of fluid composed of Labarraque's solution 1 part, and water 16 parts, will sometimes prove very effectual in removing the gas from the intestines. Dr. Wood, of Philadelphia, thinks the removal of the tympanitis can be best effected by the use of spirits of turpentine in doses of from 8 or 10 drops, given in mucilage. It is thought that it acts by stimulating the muscular coat of the intestine to contraction.

With regard to *abscess*, which occurs in the advanced stages of the disease. It frequently happens that pus is produced very rapidly, and it may do a great deal of harm by dissecting up muscles and separating parts which should remain united. The only way of relieving the patient from mischief by this dissection is to open the abscess early. Do not mind what the surgeons say about not opening cold abscesses until pointing is well marked, for they have not seen as much typhoid fever as have the physicians, and the physicians open them as early as possible, however small the abscess may be. Following the advice of the surgeon, I have seen, more than once, empyema produced by perforation of the sternum and emptying of the contents of the abscess into the mediastinal space, and into the pleural cavity.

That is not a pleasant complication, especially when it could have been prevented by opening the abscess early.

When there is *peri-parotiditis* cold may be applied in its early stage, either in the form of cold compresses or ice. If the inflammation advances to suppuration, open the abscess early, and so prevent the extension of the disease.

If the doctrine be true that evacuations from the bowels of persons sick with typhoid fever are a source of contagion, a precept follows to which all will agree, and that is to *disinfect the discharges* at once. By this I mean mix with them something which will prevent any putrefaction or fermentation, and the best manner is to place in the bed-pan or vessel a half pint or pint of a solution of the sulphate of iron just before it is to receive the evacuation. This is, perhaps as good a hindrance to fermentation as any among the many substances called disinfectants. Besides this, there should be particular care that none of these disinfected dejections are put into the privy vault; they should be deposited in a hole dug in the ground and from time to time covered with fresh earth. The spot where the dejections are deposited should be so situated as to exclude the possibility of contaminating water used in the family.

The *bed-clothes*, as soon as they are soiled, should be removed from the bed and plunged into a tub of water which is sufficiently impregnated with carbolic acid to secure effectual disinfection. When this is done, I believe they may be safely sent to the washer-woman. If the doctrine of fermentation is true, the disease should not be permitted to spread at all. I am not sure that it is true. We have not had opportunity to give it a full study. But it comes to us with so much authority that the rules derived from it deserve consideration.

With regard to the *administration of medicines*. There are many physicians, especially in England, who attach considerable importance to the use of mineral acids, and, as far as we can judge, it does not matter much which one is used. One physician prefers the phosphoric acid; another prefers the muriatic; and still another the sulphuric; but all agree that there is

an amelioration of symptoms when these medicines are used. Some of the German physicians are much attached to preparations of iodine in the treatment of typhoid fever. For instance, 6 grains of iodine and 12 grains of iodide of potassium are dissolved in 1 ounce of water; of this they give 2, 3, or 4 drops every two hours.

Another German writer attaches much importance to the administration of 5 grains of calomel once, twice, or three times a day in the early part of the disease. We have been very familiar with the use of calomel in this country in the treatment of typhoid fever, and it has been pretty generally abandoned.

Next, with reference to the *use of stimulants*. It is one of the most difficult things in the world to keep the medical profession plumb. At one time they will bleed for certain diseases, and bleed *coup sur coup*, and at the end of no more than ten years, perhaps scarcely a medical man can be found who bleeds in the treatment of any disease whatever. The pendulum goes up upon one side, and when it comes down it does not stop at the perpendicular, but swings high up upon the opposite side. So it is with whatever medical doctrines are brought forward; they are carried to extremes, are found to do harm, are then rejected, when probably there is some good in them all. This is especially true with reference to the use of stimulants in the treatment of disease. Thirty years ago they were regarded as harmful except in certain conditions. Afterwards came a day when they were used for the relief of almost every disorder, and now I found it very difficult to keep my young men in the hospital from the excessive use of them.

As a matter of fact, two-thirds of the patients sick with typhoid fever do better without than with alcoholic stimulants. Occasionally a case occurs in which the feebleness and frequency of the pulse, and the general condition of prostration, will suggest the inquiry, whether alcohol should not be given. When alcoholics diminish the frequency and increase the force of the pulse, they do good, and then they should be given in such quantity as is necessary to give this force and diminish the restlessness and suffering of the patient. But in considering that point you are to bear in mind another: the stage of the disease. I cannot, perhaps, better illustrate what I mean to say than by referring to two cases which I saw on the same day.

I went out of town a few miles to see a case of typhoid fever, and found that the patient had the symptoms of the third, in the first week of the disease. There were the dry tongue, sordes upon the teeth and lips, delirium, restlessness, imperfect consciousness, involuntary evacuations from the bladder and bowels.

I said that man must die. To give him alcohol would be of no benefit whatever. He died in the beginning of the second week, and I do not believe that all the alcohol which has been distilled since the sun began to shine could have saved his life.

In the evening of the same day I visited a young lady who was in the fourth week of typhoid fever. Her condition was almost exactly that of the man whom I had visited in the early part of the day. There was the dry tongue, the delirium, the rapid, small pulse, etc.—in short, she had symptoms belonging to the fourth week of the disease—and the question was, Shall we give brandy? Answer, yes. For if we can keep her alive to the end of this week her life probably can be saved; and the result was, she recovered. The very severe symptoms appearing early will not yield to any remedy which can be given. The heart will fail

before the natural period at which the disease terminates can be reached.

As a rule, when a person has had this disease he will not have a second attack. In the town of Richmond, Mass., Dr. Jennings saw two epidemics of typhoid fever, occurring with an interval of two years. About sixty persons were attacked in each epidemic. In the second *two* of those who two years before had had the fever had a second attack, and that is what is likely to occur in any epidemic recurring within a short period. Those who have had the disease may regard themselves as having an immunity not entirely complete from its recurrence. Exactly the same experience occurred to Dr. Jennings with reference to scarlet fever. So typhoid fever may be pretty safely compared with the eruptive fevers with regard to liability to a second attack. Persons advanced in life are not liable to an attack, or only in a slight degree. Infants, quite young, do not have the disease, but after one year of age they can.

#### BASTARD TYPHOID FEVER.

There is a form of disease, which has a certain resemblance to typhoid fever, and yet has not probably its characteristic lesions. A man, for instance, finds himself quite uncomfortable; after a little time he feels chilly; perhaps these chilly feelings last for a day or two; he has alternating with the chills periods of heat, and, altogether, he does not feel well. He rises the next morning, feels about the same, has but little energy, perhaps lies upon the sofa. He takes some light article of food, but his appetite is nearly gone. He goes to bed at night, thinking that a night's rest will make him feel better. He gets up on the following morning, and, as soon as he begins to move about, he finds that he is weak; it is much more agreeable for him to sit than to stand, and he had rather lie down than do either. His pulse is moderately increased in frequency. His temperature is 102° F., perhaps 103° F. In this condition he goes on day after day, until he becomes accustomed to this continuation of symptoms, and then he keeps his bed most of the time. It is not a dangerous illness, and yet it lasts about the same length of time as does typhoid fever. There is no diarrhoea, no tympanitic distention of the abdomen, no eruption of any kind, no delirium—or if delirium is present, it occurs at night, and is only of short duration. There is loss of appetite, and a rather mild fever, which lasts about four weeks. I have described the disease in this way for many years, and I have observed that persons in other countries have observed the same kind of fever. I do not know what it is; we are ignorant concerning its lesions, for, in my observation, there have been no deaths. For want of a better name, I have called it *bastard typhoid fever*. The treatment is entirely by symptoms, from beginning to end.

We have no reason to suppose that it is communicable, as I have not seen two cases in any family, and, in that respect, it would be distinguished from typhoid fever.

#### EPHEMERAL FEVER.

There is a fever which I have already mentioned, and to which I must again make brief reference. It is the ephemeral fever. It is best known during an epidemic of typhus or typhoid fever. It begins just as these two fevers do. It runs in the most marked cases only about one week, and then subsides of its own accord. While it continues you cannot be sure that it is not typhus or typhoid fever, whichever disease may



be prevailing. I have often thought that it would be worth while to inquire whether it does not occur, for the most part, in persons who have had typhus or typhoid fever, and in whom the susceptibility to those diseases is limited.

At all events, it is an affection which does not run a definite course; it is not a distinct fever. It usually subsides after two or three days, and then the patient is soon well again.

#### CESS-POOL FEVER.

Every summer I see a certain number of cases of a febrile disease, which is attended by exhausting diarrhoea and great prostration, and in almost every instance the sickness can be traced either to foul water, water made foul by the admixture of human excrement, or to neglected privies.

Most of you will remember something of such a disease, which took for the most part a chronic form, occurring in one of the hotels in Washington several years ago. It was a chronic diarrhoea; there were some acute cases; but most of them were chronic, continuing at least for several months, and in some cases for one or two years. Some of those patients recovered, but a great many were worn out by the disease. We see the same thing here sometimes arising from contamination from sewers.

The number of deaths occurring yearly in New York from this cause I do not know exactly, but probably it is fifteen or twenty. From what I know of the disease, it always has the same history. It is not usually ushered in by a chill; sometimes it is, but there is always a certain amount of fever; there is a diarrhoea, and its duration is usually two or three weeks. You may perhaps obtain a better idea of the leading features of the disease from a letter which I received some three years ago from a physician whose son died of it while at school. He writes: "I was summoned to visit my son on Monday, September 23, 1874. I found him in bed, pale and emaciated; pulse 100, soft and moderately full. His tongue was covered with a white coat; his mind was clear when awake, and I learned that he had been unwell a little more than two weeks with diarrhoea, consisting of from four to eight large discharges daily. Early in his sickness he had a chill, but had a diarrhoea before the occurrence of the chill. He had not had any headache at all, no epistaxis, no tenderness or pain in the abdomen or iliac region. He had had no appetite for solid food for a week previous to the commencement of his sickness, but had taken milk with relish. There were no scordes about the mouth, no tympanitis, no rose-colored spots. On Monday night he slept some. Delirium was moderate, and like that in typhoid fever; he kept trying to get out of bed, and saying that he wanted to go home. From this time he grew rapidly worse; the pulse increased in frequency, and became small and feeble; the diarrhoea continued, and he died from exhaustion on Wednesday evening. The temperature on Wednesday was 101½° F. in the axilla, and at that time the extremities were cold." Such was the history of the case, and now for the circumstances which are responsible for his death. "His room was upon the second floor, was fifteen feet square, had a high ceiling, and had two windows. One window opened into the back yard, the other into the vestibule of the water-closet, used by 70 or 100 persons. The closets were very foul, had no ventilation except by a square box, to which was attached a pipe about six inches in diameter, running horizontally through the room occupied by my son, and emptying into the chimney.

The stench from these privies was something horrible." In this case it is uncertain whether the disease came from the gases which were produced in the privies or from contaminated water, as no investigation was made with reference to the latter question.

At one of our watering-places, however, only a few years ago, there were repeated cases of a similar disease, a disease having the same symptoms substantially, and they were traced distinctly to a communication between the pipes from the water-closet and the pipes which supplied the house with water. There was a pretty clear solution of the sickness. It must have been caused by water contaminated with human excrement. The disease is not the "typhoid affection," so far as we can judge from the symptoms. Its lesions are not yet fully studied.

Whether the disease which occurred in eighteen out of the twenty persons who attended a picnic in Connecticut was truly typhoid fever, or was of the character of the cess-pool fever, I have not been able to ascertain.

These cases come from every region of the country. Not long ago I saw a case which came from the White Mountains, and it would seem that discharges from privies, or emanations from them, can produce this form of disease anywhere.

There is no treatment for it except symptomatic. You will endeavor to stop the diarrhoea, and for that purpose you will use exactly the same means employed to suppress a diarrhoea arising from any other cause.

Naturally you would consider the source of the disease and remove that, and doubtless the use of some disinfectant will be suggested to you. Small doses of carbolic acid may be given, but it is not certain that it will produce decided results. At the same time it can be given with safety, and it is proper that it should be administered. The hyposulphites, of soda particularly, the bisulphites and the sulphites, may all be used for the same purpose. It is probable that they may do some good. The gravest feature of the disease is the exhausting diarrhoea; and this suggests the use of brandy or port wine. In one case that I saw transfusion of blood was made, but with only temporary benefit. There is no general febrile movement of much severity; consequently, quinine would be required more as an antiseptic than as a sedative.

#### TYPHO-MALARIAL FEVER.

There is another form of fever to which I wish to direct your attention, and it is that which Dr. Woodward, of Washington, has described under the name of typho-malarial.

I have long known that a certain relation existed between malarial disease and typhus and typhoid fevers, but it did not occur to me to give it a name. To give you an illustration, which is perhaps better than a general description: in 1847 a young physician in Bellevue Hospital was taken sick with typhus fever. He was from a malarious region, and a year before had had remittent fever. His typhus fever went on, not with extreme severity, nor was it light enough to relieve anxiety. In the course of two weeks I found him, at one of my visits, in profound coma. What had happened I was not able to say. Whether there had been a sudden accession of meningitis, or whether the condition was due to some unexplained cause, I was not at first able to determine. After three or four hours he began to recover from his coma, and in a short time was quite himself again. That fact in an adult would exclude the idea of meningitis. The question then came, Can there be any malarial influence at work to produce this congestion of the brain?

On inquiry I found that about one year before, while living in the neighborhood of Philadelphia, he had an attack of remittent fever. I immediately began the administration of quinine; but the coma recurred the next day, in a milder form, and by the third day was wholly conquered. After this the typhus ran its regular course, and he recovered. Symptoms as severe as this do not commonly occur in typho-malarial fever, but accessions of fever are very apt to correspond with the accessions in the intermittent and remittent fevers—that is, the highest temperature is more apt to be present in the morning than in the evening. In other words, malarial poison will work in conjunction with typhus and typhoid poisons and make a compound disease. Of course, your treatment in such cases will be modified to correspond with the complication. By use of quinine the malarial element can be pretty promptly eradicated, without producing any special effect upon either the typhus or the typhoid fever. Your treatment, therefore, will be antiperiodic as well as sustaining.

## Original Communications.

### ON TRUE ANIMAL VACCINATION.

By HENRY A. MARTIN, M.D.,

BOSTON, MASS.

In a previous communication I endeavored to give some idea of the causes of "shocking results" erroneously attributed to vaccination. I have had ample experience in the investigation of such cases and of the often very incorrect, imperfect, and exaggerated rumors and reports of them since I was summoned, in 1850, as an expert, to the inquest on "the Westford cases," till the present moment. I feel much as did that great, good, and all too soon and too completely forgotten man (the "Jenner of America"), Doctor Benjamin Waterhouse. Having imported into America a new disease (*Vaccinia*),\* he felt obliged to investigate and explain every circumstance connected with it. In September, 1870, I introduced into America the method of *true*† animal vaccination, and have felt a peculiar necessity and obligation to investigate most thoroughly every report of ill result from the use of bovine virus. The cases in which uncomfortable complications and results, or even mere *sequelæ* of the use of true animal vaccine have been reported, have been extremely few, yet the investigation of them has involved a great amount of very irksome labor. I am happy to say that *in every instance* in which fatal or even serious results have been reported as compli-

cating or following the employment of *true* bovine virus, the report has been erroneous, and I regret to say that, in more than one instance, the error has arisen from intentional and interested misstatement, which has only been revealed when it became evident that further misrepresentation would have been worse than useless. Although I possess, and can at any time produce, ample evidence to corroborate the truth of this statement, I have not, hitherto, considered it worth while to formally refute the very few reports unfavorable to *true* animal vaccination which have been published.

Such refutations involve, necessarily, a great deal of explanation, a vast amount of writing, laborious to the writer, and very seldom carefully read, or indeed more than glanced at, by the "busy practitioner," and have but very little effect in neutralizing the ill consequences of the original misrepresentation. The original short, crisp, piquant lie, even although its source may be unknown, irresponsible, or even anonymous, will be read, and, if not fully credited, will still produce a decided and lasting impression and prejudice in the minds of ten readers, of whom perhaps, indeed, probably hardly one will take pains enough to investigate its credibility or even to carefully read a denial, which to be conclusive must almost necessarily be very long. Long and repeated experience having fully convinced me of all this, I have been satisfied to possess the documentary and other evidence necessary to vindicate *true* bovine vaccination from all injurious imputations hitherto made without writing any formal paper with that intention. The total number of cases in which ill results are even reported as, at any interval, following the use of *true* animal vaccine is so utterly and insignificantly small, compared with the prodigious aggregate of vaccinations and re-vaccinations made with that virus in America since September 23, 1870, that, if they were ten times as numerous, and all absolutely authentic (as I pledge my honor to, if necessary, prove them to be false), they might well be disregarded. Few of your readers can probably have an absolute or even approximative knowledge of the perfect revolution effected by true animal vaccination in America in the past seven years. If this revolution in practice had been associated with the operations of some extended and dignified organization like the National Vaccine Establishment of England, and its progress recorded, from year to year, by the publication of able and imposing blue-books and essays, and statistical tables, it would doubtless have made more noise in the world and produced an infinitely greater effect on some weak minds, but it could not have been more complete.

As a result of the general intelligence and education of the American people, the independence of the American profession, and a general conviction with both that vaccine virus *might* be the vehicle of human disease; but, above all, that by long human transmission it had lost much of its power to induce a perfect and permanently protective form of *vaccinia*, there was a very general willingness, and even desire, to give a fair trial to a method which was certainly free from *some*, and might be free from *all* the defects of the "Jennerian," or "arm-to-arm" method of vaccination. During the summer of 1870 I experimented in the vaccination of animals and of the human subject with virus thus obtained, and in September of that year I offered to the profession an opportunity to obtain true bovine virus. On October 20, 1870, I published, in the *Boston Medical and Surgical Journal*, brief announcements to that effect, with statements of the results of observation to that date. Two or three

\* If it were not from a fear of appearing pedantic, I should use the original and proper term, *Vaccina*, which may be found in most of the older authorities. There seems no reason but a mistaken notion of euphony for the change in the final syllable; but why not *Scarlatinia Variisilla*, etc., etc.?

† I use the term "*true* animal vaccination," as that of "animal vaccination" and "bovine vaccination" are applied to the method of retro-vaccination (the vaccination of animals with humanized virus, and employment of lymph so obtained), a very different thing from true animal vaccination, and the very and deservedly bad reputation of which has been a great stumbling-block to the understanding and acceptance of the latter. By "*true* animal or bovine vaccination" is always to be understood the inoculation of a young selected bovine animal with the virus of original spontaneous cow-pox, of another from this, and so on in continuous series, as a source, and the only source, of supply of virus for human vaccination. A very common error is to confound with this "*variolo-vaccination*" (inoculation of bovine animals with the virus of human *variola*), a method always uncertain and never safe, and which can never be of any practical value or importance.



months after this Dr. F. P. Foster obtained virus from me, and commenced the propagation and sale of bovine virus in New York. Dr. Griffin, of Fond du Lac, Wisconsin, commenced the same laborious specialty, with instructions and virus supplied by myself. The variolous epidemic then prevailing creating an extraordinary demand for virus, a very large number of individuals, mostly physicians, engaged, in different parts of the country, in the propagation of the Beaugency cow-pox on animals of the bovine species. The consequence of this was that ample supplies of virus were easily attainable, and an unprecedented panic and wish to be vaccinated and re-vaccinated accompanying the progress of the epidemic led to a rapidity and thoroughness of protection of the entire population from *variola*, never before even distantly approached in this country, or even Europe, and indeed not possible, unless with the supply of virus (only limited by the demand) afforded by the method of animal vaccination. The immediate result of this general and thorough vaccination of the population of the United States with bovine virus is the present wonderful immunity from variolous disease—an immunity almost absolute, which has continued for three years, and which, I prophecy, will continue in a less remarkable and general, but still unprecedented degree, for from six to ten years longer. The only marked exception to this immunity from variolous epidemics since January, 1874, will be found in the epidemic in San Francisco, and, to a less degree, throughout California in the summer of 1876. The variolous epidemic which, with a malignity and mortality unprecedented in living memory, raged throughout the continent of North America from 1868 to 1873 (inclusive) made its first appearance on the Pacific coast, and continued throughout California during 1868-9 with terrific intensity and mortality till it had exhausted the entire susceptibility of the population.

What vaccination was done was necessarily with virus of very long humanization, and we have the official evidence of the late Dr. Rowell, Health Officer of San Francisco during the whole of that dreadful visitation, that the general vaccination and re-vaccination of the population was totally without effect in arresting the pestilence, and Dr. Rowell's opinion is very decidedly expressed that vaccination during that epidemic rather predisposed the patient to the attack of variolous disease than prevented it.\* This want of prophylactic efficacy Dr. Rowell attributed to extraordinary epidemic influence, and not at all to any defect in the virus employed, "which was of the old stock, *humanized*, and believed to be as good as that used in any portion of this country or elsewhere." The population of San Francisco ravaged by small-pox in 1868-9, and very generally vaccinated during these years with virus of long humanization, became subject again in 1876 to a similar epidemic of equal malignity. On this occasion, but not till the epidemic had attained very formidable proportions, a general vaccination with true bovine virus was ordered, and very thoroughly and rapidly accomplished.

All, or very nearly all, the virus used was of the Beaugency stock, and the report of that general vaccination, in direct contrast with that of the same population exclusively with long-humanized virus, is one of the most important sanitary documents ever published. I will make but brief quotation from the report at this

time, but hope that my allusion to it may attract the attention of the profession, and lead to a more perfect and extended appreciation of the very remarkable and important facts it records.\* After relating Dr. Rowell's experience, and opinions of the effect of the general vaccination in 1868-9, Dr. Meares says: "We have just passed through an epidemic of equal malignancy, and of almost equal fatality, and yet how different is the experience of your present health officer from that of the late Dr. Rowell in regard to the prophylaxy of vaccination! I wish to place on record the emphatic declaration that of the many thousands successfully vaccinated by this Department, and by practitioners generally of this city, with bovine virus (Beaugency stock), not one has been attacked with small-pox, notwithstanding these vaccinations have been performed during the prevalence of an epidemic of a most malignant and fatal character." In another place: "I have found it, in my large experience—having personally handled more than fifteen hundred cases of small-pox during the year, and having personally vaccinated hundreds who, for weeks, were daily and hourly exposed to the contagion—absolutely protective, where the patient was vaccinated before the period of incubation of small-pox, and, as I have elsewhere stated, where the period of incubation had been going on for several days, the disease has, in every case coming under my observation, been rendered entirely harmless by vaccination with bovine virus."† Again: "Erysipelas, axillary and pectoral abscess so seldom result from the use of bovine virus that no case of either has occurred within my knowledge." "There are, I know, some few medical men who continue to use humanized virus in preference to bovine. Fortunately for their patients the introduction and general use of bovine virus in the Eastern States and on the Pacific coast has furnished these gentlemen with virus but slightly removed from the animal. It is exceedingly doubtful whether any of the old stock of vaccine can be found in the United States."‡ Dr. Meares is no enthusiast or partisan. In

\* "Report of the Health Officer of the City and County of San Francisco for the Fiscal Year ending June 30, 1877. By J. L. Meares, M.D., Health Officer." Dr. Meares very kindly sent me a large number of copies of this report, which I have sent to England and elsewhere. It is probable that copies may still be obtainable by application to Dr. Meares.

† The Boston Medical and Surgical Journal, in a notice of this report recently (Nov. 8), asks, after quoting this paragraph, "What, we would ask, does 'entirely harmless' mean?" To ordinary minds there does not seem much mystery or obscurity in the statement; but in an extremely interesting private letter to me Dr. Meares explains, and as the explanation is very instructive, I transcribe that part of his letter: "A case of confluent small-pox was reported in the person of a Mr. Casaboni, a policeman. I saw Mr. C. on Thursday, the third day of the eruption. He died in a few days. The attending physician had vaccinated the five really beautiful children of Mr. Casaboni before I visited the family. The Sunday following Mrs. C. sent a request that I would call and vaccinate the children. The attending physician was out of the city and his vaccinations had not taken. I visited the family and vaccinated the five children with the bovine virus. On the seventh day after I had vaccinated the children I was again called to see the family. Three of the children were quite sick. One of them, a fine boy, five or six years of age, was taken with fever the day before (the sixth day after vaccination), and the other two were taken with fever the same day I saw them (the seventh day after vaccination). When I saw the children the next morning, I found the little boy sitting up, eating an orange. He had a few papules on his face, and a few scattered over his body. He had no fever, said that he was quite well, and indeed was not sick a moment afterwards, the papules all having aborted. The next day the other two children had two papules each on their faces, and a few scattered over their bodies. These papules also aborted, and recovery was as rapid as it could have been from the mildest form of variella. And this is what I mean when I say, 'even when the period of incubation,' etc. The other two children escaped altogether. I argued, at once, if this virus would so throttle this terrible disease after a period of incubation of at least four days in the case of the boy, and of three days in the cases of the two other children, besides having protected entirely the remaining two, that it was my duty to discard, as far as possible, the humanized, and substitute the animal virus. Nor has it disappointed my expectations, as my report will testify."

‡ Dr. Meares's Report, p. 16.

\* "Report of the Health Officer of the City and County of San Francisco for the Year ending June 30, 1869, by Isaac Rowell, M.D., Health Officer," p. 23. I am under the greatest obligation to Dr. Meares, Dr. Rowell's successor, for a copy of this extremely rare and valuable report.

a private letter he has informed me that, when appointed health officer, he had no experience of animal virus. A quantity, sent to the editor of a medical journal, came accidentally into his hands, and it was the remarkable effect that he witnessed from its use in a large family, already (six days before) vaccinated without effect with humanized virus, and for from four to six days exposed to the contagion of *variola*, that led him to its more extended use, an observation of equally remarkable results, and, finally, to the adoption of bovine virus exclusively in the general vaccination of the city.

I have said that the *immediate* result of the recent unprecedentedly complete vaccination of the United States is the present entire immunity from *variola* in an epidemic or endemic form, and, indeed, from sporadic cases unless imported; and it is very remarkable that in no instance, of many within my knowledge since 1873, has small-pox extended beyond the cases bringing the disease from Canada and foreign ports; and here an important fact may be mentioned. Canada has continued, since 1873, to be the field of small-pox prevalence; and in Canada, although bovine virus has been extensively employed in *private* practice, the old humanized stock from England and elsewhere is still extensively used, and all the *public* vaccination, with very trifling exception, has been done with virus of a greater or less degree of humanization. What may prove to be the more enduring effect of this great experiment is only to be surmised now, but can be clearly established by time alone. The whole population of the United States was most thoroughly vaccinated during the years 1871, '72, '73. This vaccination was done with virus direct from the heifer, and with very early human removes therefrom, for it is certain that the amount of long-humanized virus used during those years was inappreciably small, and it is not probable that during 1873, and from that till now, a particle of vaccine virus of *long*-humanization (5 to 79 years) exists in the United States.

Those gentlemen who have seen fit to oppose true animal vaccination from its inception, without anything like proper or practical investigation, are still practising it and enjoying its benefits, for the most enlightened advocates of the new method do not insist that a few human removes from the animal essentially impair the prophylactic efficacy of vaccine virus, but that by a *long* series of such removes it is very seriously and vitally influenced and impaired. A single human remove *may* be syphilitic. And virus of even one human remove has not that wonderful exemption from erysipelas noticed in that *direct* from the animal; but it is not certain, or indeed probable, that one, or even ten, human transmissions essentially impair its most important quality. Even those who exclusively employ bovine virus do not assert this; and one of the great advantages of *true* animal vaccination is that it enables the practitioner to obtain at will heifer-transmitted cow-pox virus, and in this way to renew his "strain" of vaccine, and to be absolutely cognizant of its entire human pedigree. If, when the next variolous epidemic shall occur, it shall be found that the probably at least 10,000,000 people vaccinated and re-vaccinated in 1870-6 with true bovine virus, direct from the animal or of very early human removes, are absolutely protected from small-pox, or protected to a degree and with a permanence far beyond that attained by the use of virus of long-humanization, the victory of the new method will be complete and absolute. Then, too, may be definitely settled whether, as is not probable, a few human removes essentially impair the prophylactic efficacy of

vaccine virus. It must be admitted that few experiments have been on a more extended scale, or of more prodigious importance to humanity for all future time than the recent very general vaccination of the people of America. Few men, if that experiment results, as the writer most fervently and firmly believes, will deserve the enduring gratitude of their species more than those who, through good and ill report, and a very unfair share of the latter, have upheld and labored for the extension of true animal vaccination.

If this method was the means of supplying virus, no more efficacious than that obtained by the "arm-to-arm" method, there are still reasons why the innovation should be regarded as of very great importance and value. I will briefly allude to three of these reasons.

1. The ability of true animal vaccination to afford, at a few days' notice, supplies of virus utterly unattainable by the old method, and limited only by the demand. As formerly in America, now in England, during variolous epidemics, the immediate demand for virus is far beyond the supply. Virus is taken from poor and spurious vesicles; from perfect vesicles by repeated tapplings and drainings, day after day; from vesicles at too advanced a stage; from secondary vaccinations, and, as a notorious result of all this, there are made an immense number of spurious and quite unprotective vaccinations. One of the most fertile causes of the prevalent discredit of vaccination, is the impairment of the protection of those whose arms have been robbed of lymph and the full development of the vaccine disease interfered with. During the late variolous epidemic in England, every issue of every medical journal contained paragraphs, editorials, and communications headed "Vaccine Famine," loudly complaining, in spite of the very admirable and most efficient and energetic National Vaccine Establishment, of the almost utter deficiency in the supply of vaccine virus; so inadequate was all that could be obtained to meet the immediate and great needs of such an occasion. It is notorious that, if the epidemic had not suddenly and unexpectedly subsided, this great and crying "famine" would have led, notwithstanding official red-tape opposition, to the adoption, as a temporary expedient, of true animal vaccination. If this had been done, the new method would have become the established and only one of vaccine supply in England, and in precisely this way *will* true animal vaccination eventually be introduced and established in our good old motherland, whose conservatism is so safe and so preventive of much that is evil, that we can almost excuse her for what sometimes seems unreasonable obstructiveness of what is desirable and good.

2. The entire immunity of vaccination with true bovine virus, direct from the animal, from erysipelas. This quite unexpected immunity was first noticed by myself and others, within six months after I introduced the new method. I published it in March, 1872,\* and have repeatedly alluded to it in various publications since that date. During the thirteen years that I furnished humanized virus exclusively to the profession (1857-1870), I issued an annual average of about 25,000 "charges," and must have received from correspondents notifications and complaints of over one hundred and fifty cases of vaccinal erysipelas, besides occasional cases of axillary abscess, and many cases of the irritable spurious vesicle.

\* Report of Special Meeting of Physicians to Investigate Animal Vaccination, March 9, 1872, Journal of the Gynecological Society of Boston. Numbers for April and June, 1872.



During the somewhat over seven years that I have supplied bovine virus, I have issued an average of over 150,000 "charges" annually (450,000 in one year, 1872-3), and have had but two reports of erysipelas, and none of abscess or of the irritable spurious vesicle. The two cases reported were: one in which, twenty-one days after vaccination, a physician tried to remove two crusts—one came off easily, the other he endeavored, with undue force, but ineffectually, to remove. He was sent for the next day, and found that erysipelas had begun at the edge of the crust he had vainly tried to tear away. In the other case a patch of mild erysipelas (erythema erysipelatosum) was perceived on the left foot of an infant vaccinated on the right arm six hours before. I do not think that either of these cases can, in any way, be attributed to vaccination, but they are, literally and absolutely, all that have been reported to me, or that have come to my knowledge as *sequelæ* of vaccination with true bovine virus.\* I have been informed that statistics carefully kept by the New York Dispensary, and by its predecessor, the New York Kine-Pox institution, for a great many years, and covering an immense aggregate of vaccinations, show an average of one case of erysipelas in 500 vaccinations with humanized virus, and my own very large and long experience in the use of that virus fully confirms these statistics. The reader can readily approximatively calculate the number that, at this rate, should have been reported to me from the use of far over 1,000,000 charges of animal virus. One thing more I wish to say of vaccinal erysipelas. It is a gross mistake to suppose that this affection, complicating vaccination with humanized virus, is, in any way, a proof of the bad quality of the virus employed, or of the morbid condition of the vaccinifer yielding it. On the contrary, almost every case I have seen, and I have seen many, has complicated a peculiarly perfect development of *vaccinia*, from the use of virus from an unexceptionable *vaccinifer*, in whom erysipelas had never appeared. I do not remember or think that I ever saw a case of vaccinal erysipelas, in which the vaccinifer manifested that disease. Vaccinal erysipelas is simply an *accident* of vaccination with humanized virus, which no amount of knowledge or care can avert. It is, as I can prove by many instances, peculiarly apt to appear, just as the *areola* declines, in cases in which the development of *vesicle* and *areola*, particularly the latter, has been typically fine and perfect. Every vaccinator (with humanized virus) of large experience will fully acknowledge and confirm the truth of what I have written, and from his own experience recall how great an annoyance this accident always is, what vast trouble and anxiety it gives, and, above all, what unjust and often seriously injurious aspersions its occurrence is apt to occasion. If immunity from erysipelas were the only recommendation of bovine lymph, it would be a very great one. I unhesitatingly assert that immunity, an immunity absolutely total, for the two cases which have come to my knowledge were not cases of *vaccinal* erysipelas, and the occurrence of a thousand just like them would not invalidate the truth of my assertion.†

\* For two years and a half after I introduced true animal vaccination, I issued also virus of *one* human remove, and that of the old long-humanized "stock." During that period I received reports of several cases of erysipelas. Since I ceased myself to use virus of even one remove I have issued, to a few correspondents, crusts of a single remove. From the use of one of these, two cases of erysipelas were reported.

† The term *erysipelas* is most loosely applied to the results of inoculation of septic poisons, of pus, of diseased secretions, from exposure to cold, and often to mere erythema, and even to a full and peculiarly perfect development of the *areola* of *vaccinia*. The term *vaccinal*

3. One other advantage of bovine vaccination is its freedom from liability to induce the irritable, spurious *vesicle*. This I have verified by many hundreds of primary vaccinations made with bovine virus and that of the long-humanized "stock" of the English Vaccine Establishment, each on one arm of the same patient. Very often I have seen, on the humanized side, a vesicle more or less, and sometimes completely irritable and spurious, while on that arm vaccinated with bovine virus there has been *invariably* a perfect development of the disease, regular in all respects of duration and intensity in the development of the *vesicle* and *areola*, and also in the very important, but now almost entirely overlooked, process of "scabbing," the formation of a crust or scab of exactly characteristic form and color, which has remained adherent for at least twenty-one, and usually for over twenty-five or a greater number of days, while on the humanized side, anything like a typical vaccine crust has very often failed to form at all, and, in many instances, the seat of the *vesicle* has been occupied by an ulcerated surface covered by a thin, soft crust, frequently removed and as frequently renewed. I need not, however, expatiate on the various forms and degrees of the imperfect vaccine vesicle; every vaccinator with humanized lymph is perfectly familiar with them. Pure, perfect, true bovine lymph has never, in primary cases, in my experience, induced those irregular developments, but, invariably, a perfectly regular and typical form of *vaccinia*. I have alluded to this very important fact in my report in 1872, and in several other publications, and at length in a report on animal vaccination which appeared in the recently issued volume of the Transactions of the American Medical Association. I have also stated in these various places, as a result of these experiments of vaccination of a single subject with both sorts of virus, the occurrence of erysipelas in several cases, and *invariably on the humanized side*; and also the fact that the cause of my final abandonment, forever, of the use of vaccine virus of even a single human remove, was the occurrence of erysipelas in five such cases in February, 1873,\* and I will not enter into further detail now, but simply repeat the statement that I never saw or knew the irritable spurious vesicle to appear as a result of *primary* vaccination with *true* bovine lymph. It would be very hard to overestimate the importance of the three ascertained advantages of *true* bovine vaccination to which I have alluded, and neither of them is so important as its diminished liability to induce irregular and unprotective forms of vaccine eruption. The spurious irritable primary vesicle extensively observed, both in

*erysipelas* is only properly applicable to erysipelatos disease appearing at and spreading from the vaccine punctures or incisions between the time vaccination is done and the *undisturbed* scabbing of the *vesicle* and fall of the crust. It is *not* applicable to cases in which patches of *erythema* or *erysipelas* appear at some other part of the body in a few hours after vaccination of the arm, or to cases in which a vaccine crust is wrenched from the arm with even moderate violence. It is not pretended that in a patient with latent *erythema* or *erysipelas* vaccination will prevent its eruption. It may, indeed very certainly *does*, hasten such eruption or that of eczema or any other latent cutaneous affection. Neither is it pretended that even true animal vaccination is prophylactic of erysipelas. Formerly I held the theory that, in all cases in which erysipelas complicated vaccination, it was simply latent in the *vaccineæ*, and would have appeared at any scratch or incision, and that it appeared in vaccination almost always as the *areola* declined, because, till that time, its development, in accordance with "Hunter's law," was kept in abeyance by that of the vaccine disease, the entire true pathological existence of which terminates with the decline of the *areola* (proved by the fact that the eruption of measles and scarlet fever, complicating vaccination, appears with the decline of the *areola*). This theory of mine has been modified, if not exploded, by the immunity of bovine vaccination from this pest.

\* "A Few Words on 'Unfortunate Results of Vaccination,'" by Henry A. Martin, M.D." Boston Medical and Surgical Journal, February 1, 1877.

England and America, at the very dawn of vaccination, gave rise to infinite trouble and confusion, and from the frequent cases of small-pox following it, almost sealed the adverse fate of that blessed innovation. Nothing but the wonderful good sense and shrewd observation of Jenner and Waterhouse saved its reputation. Since that time it cannot be doubted that much of the discredit into which vaccination has certainly fallen, and the enormous prevalence, *particularly in this country*, of post-vaccinal *variola* and *varioid* within very short intervals after nominal "vaccination," has been and is due to the great proportion of imperfect and even quite unprotective results from the use of virus which, through very long humanization, or collection at improper periods of the disease, or careless selection of *vaccinifers*, or vicious methods of preservation, has become deteriorated and effete.

I have thrown these remarks together without much method, more with a view to calling the attention of the profession to questions now very ripe for discussion and of extreme importance, rather than with any notion of winning personal reputation as a writer. The report to which I have referred, in the last (xxviii.) volume of Transactions of the American Medical Association, is quite voluminous. To that report I refer such of my readers as may desire further and much fuller information on subjects which seem to me of unapproachable importance.

I have devoted a long professional lifetime to the study of vaccination, in the hope of helping in a humble way in the extension of a great, but most inadequately appreciated blessing, and in throwing some light on problems connected with it as yet imperfectly or not at all resolved, and thus, in a distant and remote way becoming associated with the fame of Jenner and Waterhouse, to whom, in every city of Europe and America, should, long since, have arisen memorials in "everlasting bronze."

To this ambition, since the introduction of true animal vaccination, I have devoted every day and hour, have sacrificed a practice, the laborious accumulation of twenty-five years, have waived the rewards and attractions of more brilliant and pecuniarily profitable, and far less laborious and difficult, fields of professional and literary effort. If, in return for all this ceaseless labor, I shall reap for myself the satisfaction of being recognized as an efficient agent in firmly establishing *true* animal vaccination in America, and, for this country, the credit of being the first in which this infinitely important and beneficial innovation was first calmly, dispassionately, and fairly investigated,\* and, as a result, firmly, permanently, and exclusively adopted, I shall be repaid, much more than a thousand times repaid, for all the efforts and sacrifices I have made.

27 DUDLEY ST., BOSTON, March 1, 1878.

\* True animal vaccination, as a source and method of vaccine supply, was very unfortunately first introduced in France (in 1866) by the eminent Professor Depaul. Before there had been any sufficient experience in its practice to ascertain its difficulties and overcome them, it became a subject of the most absurdly violent and protracted discussion in the Academy of Medicine, and the defects due to this want of experience were criticised with a vindictiveness and passion peculiar to the nation, and savoring far more of personal antagonism and even hatred than of a calm desire to perfect a new method and then fairly judge its merit. The method of retro-vaccination which preceded it (introduced into Paris from Italy by Dr. Lancini in 1864) was practised in a very quackish manner, and with a view to private aggrandizement and profit, far more than to scientific progress. All the circumstances amid which animal vaccination was introduced in Paris to the notice of the rest of the world were unfavorable and calculated to give an unfair and distorted impression of a method which has, however, in Belgium and this country been, since that time, more calmly studied and more justly judged.

## SOME REMARKS REGARDING

### ABSCESS OF THE LIVER, OPENED ARTIFICIALLY THROUGH THE ABDOMINAL WALL, FOLLOWED BY COMPLETE RECOVERY.

WITH IMPERFECT NOTES OF TWO CASES SIMILARLY AFFECTED, BUT NOT RECOGNIZED AS SUCH DURING LIFE, TERMINATING IN DEATH.

By RUDOLPH TAUSZKY, M.D.,

OF NEW YORK.

THE exceedingly interesting paper on "Abscess of the Liver," which Dr. Davis read before the N. Y. County Medical Society, on Monday evening, the 25th of February last, proved to my mind conclusively, as it must have convinced all those who were present at that meeting, that the method of relief advocated so ably by him, viz.: that of opening such an abscess boldly, as soon as its presence can be ascertained, without first taking any preliminary steps for the purpose of causing the anterior surface of the liver to become adherent to the abdominal wall by a preliminary operation, as has been done by some eminent surgeons in many instances, and recorded in the literature on this subject, is the best, the safest, and the most reliable mode of giving the patient thus affected a chance for life. Surgeons operate now successfully for perityphlitic abscess. We evacuate purulent collections safely to the great benefit of the patient by surgical means from the pleural cavity. Why neglect to do the same in a case of collection of pus—with or without the formation of a so-called pyogenic membrane—in the abdominal or pelvic cavity, or in any of the organs located therein? My friend, Dr. Leonard Weber, has operated successfully four times for abscess of the vermiform appendix, on persons who would certainly have died without such operative procedure.

Fortunately, the occurrence of abscess, or abscesses of the liver, is with us, in the United States, a rare disease. I have ascertained from the records of the Bureau of Vital Statistics of the Board of Health of this city, that during the past five years there were returned to it fifty-four certificates of death, the causes of which having been given as "abscess of the liver." In 1873 there were 13; in 1874, 14; in 1875, 12; in 1876, 3; and in 1877 there were twelve deaths ascribed to this cause.

Most physicians have no doubt met with abscess of the liver in post-mortem examinations in pyemia, or septicemia, or, as a consequence of the dissemination of particles, or germs if you please, as emboli in the liver, the spleen or the lungs, from sarcomatous growths of the skin or other organs, these being transported there, as Rudolph Virchow has shown, by the tumors growing into the blood-vessels from without. Small particles are thus constantly being washed away by the current of the blood coming in contact with them in accordance with the law, "gutta cavat lapidem non vi, sed sæpe cadendo." The drop excavates the stone, not by its force, but by its repeatedly falling upon it. These particles are often carried by the blood-vessels into the liver, and not by the lymphatics—as is the case in carcinoma, for instance—thus causing emboli, around which abscesses form. We meet with abscesses of the liver, as is well known, as a sequela of hepatitis, hepatic cysts, *hydatids*, *calculi*, or as a consequence of fevers. Rarely we meet with this affection occurring after gunshot, stab, or cut



wounds. Since these traumatic causes are soon followed (in most instances at least) by death, before an abscess had time to form.

As stated by Dr. Davis and Sir Thomas Watson (in his celebrated work, entitled "Lectures on the Principles of the Practice of Physic," London, 1866, where, page 964, an excellent description of the subject under consideration may be found), in the tropical regions this formidable disease is not very rare, for the reason of the climatic and antihygienic influences being favorable to its occurrence. Dr. Davis, if I mistake not, has collected two hundred and eighty well-authenticated cases of hepatic abscess—most of which proved fatal, the majority of these cases at least. No one of the gentlemen present at the meeting of the County Medical Society, above referred to, mentioned having seen any case or cases of abscess of the liver, when the subject came up for discussion, with the exception of myself. The hour for an adjournment having arrived, I did not feel justified in detaining the Society, and I simply briefly referred to the only case I had met with during my connection with the U. S. Army medical service, in which an operation for the evacuation of an abscess of the liver through the abdominal wall was crowned with success, and was followed by complete recovery of the patient. I met with this, to me, remarkable case in 1862, in the month of December, in the person of a U. S. soldier, who was brought to Harewood (U. S. Army) General Hospital, in Washington, D. C., with about seven hundred other sick and wounded, after the unfortunate battle of Fredericksburg, Va., under General Burnside. This man presented symptoms, commonly denominated as hectic. He was extremely emaciated and prostrated, he vomited frequently and was partly delirious. High fever was also present. It was self-evident that the man had but a few days to live at the furthest. A careful examination revealed the fact that he had a deep-seated abscess of the liver. All the surgeons of the hospital, myself among the number, connected at that time with the Harewood Hospital, of which Dr. Thomas Antisell, Professor of Georgetown Medical College, Washington, D. C., had charge, agreed as to the correctness of the diagnosis, but, although at that time from half a dozen to a dozen capital surgical operations were being performed in the hospital daily, none of us dared to plunge a knife into the man's liver, for fear of perhaps killing him instantly by such a procedure. Only one of our number, a Dr. Hirschfield, whom I have not seen since 1863, boldly opened the abscess through the abdominal wall; a pint or more of pus was thus evacuated, and the patient's symptoms gradually improved. After a few weeks' careful nursing he entirely recovered. To my knowledge this case has never before been placed on record. I wish therefore to add this one successfully treated case of "abscess of the liver," to those already published by others, as having come under my personal observation, and to place it on record through the columns of your esteemed journal. I regret only that the full history of the case has escaped my memory, since it occurred more than fifteen years ago.

With our present mode of making exploratory punctures, and of using Dieulafoy's aspirating needle, and the use of the carbolic acid spray, the utility of which is to-day admitted not only all over Germany, Austria, England, and other countries, but also in our own, where Prof. Lister's method is gaining ground from day to day, no surgeon should, in my humble opinion, hesitate for one moment, where human life would be endangered by delay, to open any abscess occurring in any part of the human body, as soon as

its presence has been ascertained beyond a doubt, and even in abscess of the liver we need not wait, as advised even by that great English teacher, Sir Thos. Watson (*loco citato*), for an adhesion of the liver to the abdominal wall to take place before having recourse to an operation. In this I fully agree with Dr. Davis, above referred to, who made this the punctum saliens of his paper, read before our County Society.

That there are many cases that die of abscess of the liver without having been recognized during life, there can be no doubt. I have but recently heard of the death of a gentleman of my acquaintance, who went by the name of "Uncle Ralph," and who lived with his relatives, a family named Schaeffer, in 50th Street in this city, between the 8th and 9th Avenues. This patient had been sick but two weeks before he died. He had vomited incessantly, and was delirious most of the time during his last illness. He was attended by two surgeons, friends of mine, Dr. C., of W. 45th Street, and Dr. R., of Abingdon Square, in this city, and had the late Dr. K. in consultation with them. These eminent surgeons diagnosed the case as one of perforation of the intestine. Only upon the body being opened post-mortem they found that an "abscess of the liver" had killed the patient. This man was not quite fifty years of age, and had never been ill in his whole lifetime up to his last illness, just mentioned, of which he died—with the exception of an attack of a violent colic, with obstinate constipation, lasting for several days, two years previous to his death, at which time Dr. C., I am told, removed a large biliary (?) calculus from his rectum.

After the removal of this calculus he felt as well as ever until the last attack that terminated his life.

Whether other calculi found after death caused the hepatic abscess which had not been diagnosed during life, I cannot tell from the meagre data obtained from a relative of the deceased.

The third case was that of a surgeon, a graduate in medicine of the Bellevue Hospital Medical College, who, up to the time of his death, filled the position of house surgeon to the Mount Sinai Hospital in this city. This surgeon presented all the symptoms of typhoid fever, and had been treated for that disease from the time he was taken ill until his death, five or six weeks later. The post-mortem examination in this case also proved the presence of a very large hepatic abscess which had not been recognized during his lifetime, as far as I am aware, and was the cause of his death.

Dr. C. Murchison, in his "Clinical Lectures on Diseases of the Liver, Jaundice, and Abdominal Dropsy" (New York: Wm. Wood & Co., publishers, 1868, page 180 and seq.), relates the history of a case of abscess of the liver in the person of a soldier, *æt.* 33, under his care in November, 1853.

This author says: "The hepatic dulness in the right mammary line was eight inches, the increase being due to a projection downwards from the lower margin of the normal area of hepatic dulness. There was also considerable bulging of the lower right ribs. . . . On December 8th patient died.

"On examination of the body, ten hours after death, one enormous abscess was found in the right lobe of the liver. It contained upwards of four quarts of pus."

Dr. Murchison speaks, in his admirable work referred to, of pyæmic multiple abscesses and of the single "tropical abscess of the liver." His cases, XXXVII., XXXVIII., XXXIX., and XL., are described minutely. The first three of these died. The last one, No. XL., had been punctured with a large trocar, and recovered.

I adduce this statement of the eminent London surgeon in corroboration of the correctness of the practice which Dr. Davis has advocated, and which I desire to lay principal stress upon, namely to open any abscess, wherever accessible, as soon as its presence is made out beyond a doubt.

"Even hydatid tumors of the liver were tapped by Sir Benjamin Brodie many years ago, and the patients made a good recovery. See Murchison (*loco citato*), *Med. Chir. Trans.*, vol. xviii., p. 119. Successful cases were also published by Dr. Bright, and by many other observers."

Dr. Murchison also thinks it necessary to wait for the formation of adhesions between the tumor and the abdominal wall, or to endeavor to induce them, before puncturing, from fear of otherwise causing either, 1st, acute peritonitis, owing to the escape of a portion of the fluid into the peritoneal sac, or, 2d, from the admission of air into the abdominal cavity.

Prof. Austin Flint, in his "Treatise on the Principles and Practice of Medicine," Phila., 1867, also advises to open hydatid (or echinococci hominis) cysts by an incision into the tumor, which he considers warrantable only provided adhesions have taken place around the space in which the opening is made.

Dieulafoy's aspirator and Lister's spray obviate both these dangers.

## SUCCESSFUL TREPHINING

FOR THE RELIEF OF CEREBRAL COMPRESSION FROM  
EXTRAVASATED BLOOD WITHOUT EXCISING  
LESION OF THE SKULL OR SCALP.

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In the *American Journal of the Med. Sciences* for January, 1877, I published a series of cases of "Head Injuries," and some remarks concerning their treatment, which seemed to me to be specially fit and appropriate. My conclusions from these cases prompted me to advocate a somewhat bolder resort to operative interference than is generally advised in the various modern works on surgery.

My experience, since the publication of that article, has served only to strengthen the opinions I then held. Again I refer to the writings of Gross and Erichsen, they having more influence over the practice of surgery in America than any other authors or teachers. The treatment advocated by the former for the relief of cerebral compression from extravasated blood may be found in vol. ii. (Ed. 1872), page 133, line 31, also page 142, particular attention being paid to the paragraph beginning with 12th line from the bottom of the page. The substance is, that if the extravasation of blood is uncomplicated by fracture of the skull, no one is justified in resorting to the trephine, but reliance must be placed in medical treatment alone. He reports only one case in which an operation was performed under these circumstances (and, therefore, contrary to the rule he lays down), and this case recovered. Dr. Physick was the successful operator.

Erichsen (Ashhurst's Ed., 1869), in the paragraph beginning with the 14th line from the bottom of page 354, allows more latitude than Gross. He dwells more than the latter upon the distinction to be made between the meningeal and cerebral form of extravasation, the diagnostic differences being described on the preceding page, under the head of Symptoms. He says, however, that instances are very rare in which

an operation for the removal of extravasated blood, uncomplicated by fracture of the skull, is justifiable. He mentions only three cases in which operations were performed to remove extravasated blood. Two died, the third recovered. This latter, however, was complicated by a stellate fracture of the skull. It seems, then, that the case of Dr. Physick, mentioned by Dr. Gross, is the only one known to either Gross or Erichsen, in which recovery took place when the extravasation was uncomplicated.

I think, therefore, that I am justified, by the rarity of the following case, in its publication:

Berry Henderson, colored, age seventeen, received, at 11 P.M., Sept. 24, 1877, a blow on the left side of the head two inches above and slightly in front of the ear, from a comparatively flat smooth stone. He was knocked down, but was able, with assistance, to walk home, a distance of several hundred yards. At 12 midnight Dr. Phythian saw him. He was then beginning to recover from concussion of the brain. There was neither scalp wound nor fracture of the skull, a slight contusion alone indicated the seat of injury. As there were no symptoms of compression, and those of concussion improving, the doctor left without doing anything for him. The next morning, at 9 o'clock, he was found by Dr. P. to have decided convulsive movements of the right side and serious symptoms of compression. These had commenced about 1 o'clock the night before, only a few minutes after the doctor had left. Purgatives, cold to the head, and large doses of the bromide of potassium were ordered. The two latter were kept up until late in the afternoon. The symptoms continuing to grow worse it was determined to cut down upon the skull and search for a fracture. The scalp being incised and reflected, no fracture could be found. In this dilemma the bromide and cold water were continued with the understanding that if the symptoms were not materially relieved by morning trephining should be resorted to. Morning came and with it an increase in the severity of symptoms. Upon consultation trephining was unanimously advised. The instrument was applied to the skull immediately under the contused scalp, the necessary incision having been made the day before. Upon lifting out the disc of bone the clot was plainly to be seen between the dura mater (which was uninjured) and the skull. There being some difficulty in removing the clot through the opening already made another disc was taken out. The clot extended in every direction beyond the edges of the opening. Only about an ounce of it could be removed, but we hoped that this, together with the relief of pressure from the absence of bone, would be sufficient. While the boy's condition was not improved as much as we desired, still there was sufficient abatement of the symptoms to justify the operation and lead us to expect recovery. In a few days he was out of all danger, and in due time fully recovered. He is now engaged in farm work near Frankfort. He suffers no inconvenience from any cause. That he would have died without operative interference is almost as certain as that he recovered with it.

I conclude that a surgeon is perfectly justified in trephining for the relief of compression of the brain from extravasation of blood (with or without accompanying fracture of the skull), provided, 1. That the clot is meningeal: for the necessary diagnostic differences refer to Erichsen, *loc. cit.* 2. That the clot can, with some degree of certainty, be localized. For instance, if a man is struck with a missile, injuring more from its *velocity* than *weight*, and extravasation is the result, I think it would be safe to trephine over the injured spot. If a man were to fall from cars in mo-



tion, from a horse, out of a window, or over a stairs, where the weight of his body produces the injury of the head—in other words, if the extravasation is possibly the result of counter-stroke, and upon examination no decidedly localized point of contact can be found, the propriety of trephining becomes very doubtful. That cases of extravasation uncomplicated by fracture in which an operation is admissible are *very rare* cannot be denied. But that all such cases should be treated on the medicinal or expectant plan I cannot believe.

FRANKFORT, KY., March 14, 1878.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

#### INTERESTING CASE—DIFFICULTY IN DIAGNOSIS—PROLONGED RECTAL ALIMENTATION.

THERE were certain points of interest worthy of note in the case of a married female patient, *æt.* 26, who entered the hospital on the 5th of January, 1877. Her family history was good, and there was no evidence of syphilis or intemperance. Through life she had had poor shelter, little food, and much abuse. During her first pregnancy an abortion occurred; had not carried a child to full term; had had three abortions in all, the last being two years ago. Prior to the last abortion she suffered severely from dysmenorrhœa and menorrhagia, but since that date those symptoms had been worse. She took cold while her menses were present, suffered from severe pains in the pelvic region, and was brought to the hospital in an ambulance. On admission she was recorded as a "pale, thin, delicate looking woman." She vomited occasionally, and suffered considerably from pelvic pains; was restless, moaned, and had an anxious expression of countenance. The abdomen was not tympanitic, temperature normal, bowels constipated, pulse fair strength, urine normal, and the uterus had a slight lateral displacement. Enema of castor-oil followed by suppositories of opium and belladonna.

January 6th.—Temperature  $99\frac{1}{2}^{\circ}$  in the morning, and  $100^{\circ}$  F. in the evening.

January 7th.—Temperature  $99\frac{1}{2}^{\circ}$  in the morning, and  $98\frac{1}{2}^{\circ}$  F. in the evening.

Since admission to the hospital, the vomiting and pain were much relieved by the use of poultices over the abdomen, warm vaginal injections, opium, camphor, cannabis indica, etc. The pains were shooting in character rather than steady. Bowels kept open by enemata. Pains recurring, *gtt.* xv. of chloroform were administered with some benefit.

January 8th.—Temperature  $99^{\circ}$  in the axilla,  $100^{\circ}$  F. in the rectum in the morning, and at 2 P.M.  $101\frac{1}{2}^{\circ}$  F.

Without known cause, the patient began to suffer from sharp pain in the lower part of the abdomen, burning pain at the epigastrium, and paroxysms of pain of great severity shooting through to the back. The pain became exceedingly severe, and was accompanied by a constant and almost uncontrollable vomiting. The material vomited was a watery fluid stained with bile, and finally eight or ten ounces of black fluid were thrown up, which contained blood-corpuscles, bile pigment, and mucus. Morphine used hypodermically was the only thing that had any effect in con-

trolling the vomiting and pain. A blister was applied to the epigastrium. *Nutritive enemata* containing brandy, egg, U. S. solution of morphia, and milk, were repeated every three hours.

January 9th.—Patient much better; enemata continued.

January 10th.—Patient very comfortable. Temperature  $101^{\circ}$  F. in the evening.

January 11th.—Up to last evening the patient steadily improved; vomiting had ceased, and she suffered only slightly from pain. She was nourished entirely by nutritious enemata. The progress of the case was favorable when, seemingly without provocation, another severe attack of vomiting and pain came on with exacerbations as before.

The material vomited was, at first, clear mucus, but towards morning it was stained with bile. The legs were flexed upon the thighs, and the thighs upon the abdomen. Fomentations were applied to the abdomen; morphine was administered hypodermically in doses of 15 to 20 drops of Magendie's solution repeated every hour and continued several hours, but it gave but little relief, although the pupils were contracted, and it was thought possible that it was the cause of the moderate delirium which existed.

January 16th.—No fever; some thirst, and no appetite. Nutritious enemata have been continued, and morphine reduced to an occasional hypodermic of Magendie's solution. Catheterization necessary.

January 17th.—Shooting pains in the abdomen, but not so severe as before. Patient complains of a feeling as if there was a "lump" in the stomach; there is considerable thirst and occasional swallows of carbonated water are allowed, but no nourishment by the mouth. The bowels are loose, and it is with some difficulty that the enemata are retained.

January 18th.—The patient is considerably better; she has no fever; does not complain of hunger; not much of thirst; and her general condition seems good. Suppositories of opium and tannic acid are used one hour before giving an enema, and with good effect in way of relieving the irritability of the rectum. During the last *eleven days* she has been supported almost exclusively by rectal alimentation.

The points of interest in the case were:

1. The length of time the patient was sustained by nutritious enemata. The patient's general appearance in the mean time had improved in a marked degree, showing that the body had been well nourished.

2. *Diagnosis.*—How were the recurrences of intense pain to be explained? The fact that the pain when it recurred was paroxysmal in character militated against peritonitis. The fact that there was no fever present at any time was a still stronger evidence against peritonitis. Again, the length of time the patient had had the recurrences, the absence of tympanitis and rigidity of the muscles of the abdomen, favored the exclusion of peritonitis.

Still further, the patient was just as sensitive to touch over the chest as over the abdomen, and was exceedingly sensitive to pressure over the spine. Hepatic and renal colic were readily excluded, and the absence of permanent relief by the prolonged use of hypodermic injections of morphine excluded simple intestinal colic. The visiting physician was not prepared to say that it was not a case of gastric ulcer, and yet there was not sufficient evidence to warrant such a diagnosis, notwithstanding the hæmatæmesis; the vomiting at times had been too prominent a symptom. At first it was not easy to exclude peritonitis. The case was regarded as one of well-marked neuralgic affection referable to the abdomen, recurring in

paroxysms and accompanied by irritability of the stomach—enteralgia. An attempt was to be made, on account of the irritability of the rectum, to return to the administration of food by the mouth, beginning with milk and lime-water in small quantities, and repeating them often.

February 1, 1878.—The patient, from the date of the last note, has been nourished almost entirely by the rectum. Several attempts have been made to return to alimentation by the stomach, but vomiting was produced, and an immediate return was made to nutritive enemata. The paroxysmal attacks of pain have recurred irregularly, probably as often as every two or three days, but they have progressively diminished in severity. There has been a notable improvement in the general condition of the patient, her lips present a very fair color, and the pulse is good.

The treatment has consisted in nourishing the patient; relieving the pain by the use of opium; usually administered in the form of Magendie's solution of morphine, ℞xx, hypodermically, and repeated every hour until relief is obtained.

The visiting physician did not yet feel that there was sufficient ground for making a positive diagnosis of gastric ulcer. The patient had vomited blood only once, there was no point at which tenderness upon pressure was specially marked, and the persistent irritability of the stomach could be explained on the ground that it might occur as a functional disorder.

February 2d.—Patient had an exacerbation of pain last night of moderate severity. Treatment as heretofore.

February 7th.—Patient had a slight attack of pain last night. Blister behind the ear relieved the headache.

February 12th.—Patient had a slight attack of pain on the 9th, but has had none since: is hungry, sits up in bed, rarely vomits, and her general condition is improving.

February 13th.—Nutritive enemata discontinued. Quinine by the rectum continued. Patient very comfortable.

February 20th.—Patient greatly improved; sits up for several hours at a time; has occasional attacks of pain at night, but hypodermics of water relieve them and send her to sleep. Record discontinued.

even dangerous symptoms of quinine when given during the fit, and may be taken during the fit without causing any unpleasant feeling.

4. Quinetum never causes noises in the ears.

5. Persons who are liable to suffer from the toxic effects of quinine, and who therefore cannot take it without the greatest discomfort, can take quinetum without this unpleasant effect, and yet obtain a similar therapeutical result.

6. The influence of quinetum in chronic cases is greater than that of quinine.

7. The tonic action of quinetum is similar to, and perhaps even greater than that of quinine.

8. The action of quinetum in cases of marked or larval malaria, and especially in rheumatic affections due to malarious influences, is incomparably greater than that of quinine.—*Practitioner*, February, 1878.

VISCERAL AND PARIETAL HYDROCELE.—Mr. Samuel Osborn, F.R.C.S., has published, in pamphlet form, an article on "Hydrocele of the Tunica Vaginalis," which he divides, according to origin, into visceral and parietal hydrocele. The former depends upon an extension of inflammation from the organ to the membrane; the latter may arise from traumatism, and is the form usually found in old persons, where it arises from relaxation of the vessels and tissues generally. The testicular sensation is frequently absent from the visceral variety, when secondary to some form of orchitis. The division of the treatment into palliative and radical is scarcely correct, for the former occasionally cures, and the latter frequently fails. Out of fifty-four cases treated by injection of iodine, nineteen had been previous iodine failures. Of these fifty-four, twenty-five have been followed up, and seven found intact, the other eighteen having refilled; two of these were of the original nineteen failures. The various other substances used for injecting by different operators are mentioned, including glycerine and carbolic acid, used by Dr. Lewis, of Philadelphia. Excision of a portion of the tunic, he mentions only to deprecate. The old method by incision should only be performed for the removal of loose cartilaginous bodies, which may be the exciting cause of the hydrocele.—*St. Thomas's Hospital Reports*, Vol. VII., 1876.

## Progress of Medical Science.

QUINETUM AND ITS THERAPEUTICAL VALUE.—The name quinetum was given by Dr. De Vry to the collective alkaloids obtained from Peruvian bark; it has been extensively used by physicians throughout Holland in cases where the salts of quinine had been habitually employed. Dr. H. J. Vinkhuysen, Physician to the Household of the King of the Netherlands, has closely observed its effects, and arrived at the following conclusions:

1. The only malarious disease in which quinetum cannot be employed in place of quinine, is in pernicious fever. Quinetum requires more time to act than quinine, and as rapidity of action is absolutely necessary in this disease, quinetum cannot be used in it as a substitute for quinine.

2. In all forms of pure malarial intermittent fever, quinetum has the same apyretic effect as quinine, but is less powerful and acts more slowly. It must therefore be given in large doses, and at longer intervals before the ague fit, than quinine.

3. Quinetum does not produce the unpleasant and

ARTERITIS IN THE COURSE OF TYPHOID FEVER.—An account was given on page 248 of the current volume of the *Record*, of the cases reported by M. Lereboullet, in which typhoid fever was complicated by gangrene of the feet caused by the formation of clots in the abdominal aorta and iliac arteries. M. Potain now reports two cases of typhoid fever occurring at the Hospital Necker, in which convalescence was complicated by arteritis, which, however, ran its course without the formation of clots. Both subjects were young men, one of eighteen, the other of twenty-two years of age, and in both the symptoms were very similar. These were, pain along the course of femoral vessels, diminution in pulsation of arteries, increase of the circumference of the affected limb, without however any oedema, and an absence of any cord-like induration of the vessels. In one of the cases the temperature of the affected limb was appreciably raised above that of its fellow. Both cases did well, the affection lasting but a few days, when it disappeared without leaving any traces of its presence. M. Potain considers that these prove that arteritis in the course of typhoid fever does not necessarily lead to gangrene, and considers it a primary affection, and not consecutive to an embolus.—*Le Mouvement Médical*, Feb. 23, 1878.



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## OUR RELATIONS TO OUR FEMALE PATIENTS.

A FEW days since a young physician in this city, and one of the staff of the North-Eastern Dispensary, was charged by a female patient of that institution with the commission of the crime of rape. When the announcement to that effect was made in the daily papers, those gentlemen who were personally acquainted with Dr. Oppenheimer, and the profession generally, of which he is a reputable member, did not, of course, believe that there was any foundation for it in fact. We are happy to say that a thorough examination of the case has justified such an impression. Perhaps the best way to prove this is a statement of the facts somewhat in detail.

The girl, eighteen years of age, entered the 57th Street Court-room and charged that on Thursday, March 28th, between 3 and 3.30 o'clock P.M., she entered the Dispensary and proceeded to Room 3 to have her toe dressed, the surgeon, Dr. Davis, being alone with her in the room. While there, she further stated, Dr. Oppenheimer, a physician of the Dispensary, entered, and Dr. Davis, after some sign to him, left the room for the purpose of allowing him the opportunity of making an indecent assault. The latter, she alleged, was accomplished when Dr. Davis returned, and she went home.

Judge Otterbourg, observing the girl's actions in the court-room at the time of making the charge, and doubting the possibility of an indecent outrage in a crowded dispensary, together with the fact that two respectable physicians were charged with complicity in the act, refused to grant a warrant of arrest, but privately invited both gentlemen to his room to explain the matter.

On Thursday, April 3d, at 4 o'clock, in the judge's private room, the girl, accompanied by her guardian, repeated her story, contradicting herself, however, on some points, in the presence of the judge and the physicians of the Dispensary. Dr. Oppenheimer stated in

his defence that on the day alleged he entered the Dispensary at 2.20 P.M., went to his room, saw his patients, called on Dr. Tansley, whose room adjoins his, and left the Dispensary at 2.50 P.M., his departure being noted by Dr. Tansley and Dr. Gunning, the Assistant House-Physician. He also affirmed that at no time on that day was he in Dr. Davis's room, the place of the alleged assault, and that he did not remember ever having seen the girl before, except once, about a week previous to the alleged assault, when on entering the surgeon's room, to borrow a spirit lamp, he saw Drs. Davis and Gunning dress her toe, and remarked that he believed he had seen her toe-nail removed a year ago by Dr. D.; and that having obtained the lamp he left the room.

Dr. Davis stated that on the day of the alleged assault Dr. O. had not been in his room, nor had he seen him anywhere else in the Dispensary; that Drs. Maguire and Gunning were in the room with him while attending the girl, and that afterwards she immediately left the room and the Dispensary; that he did not leave the Dispensary until about 5 o'clock, and that no such assault could have taken place without a dozen physicians and forty to fifty patients becoming aware of it, as the rooms are separated by mere boards with large intervening cracks, so that the slightest noise in one room would call the attention of all the inmates of the institution.

Dr. Gunning stated that he saw Dr. O. leave the Dispensary at 2.50 P.M., long before the girl entered, and that as Assistant House-Physician, he called the doctor's attention to his early departure, and that Dr. O. had answered he was busy and wanted to get home early. He was also positive that the girl entered after the doctor had left the Dispensary, it being his duty to mark the card of admission of all patients on entering the room. That he went to the surgeon's room, where he saw Drs. Davis and Maguire, that the girl entered, and during her presence and after her departure he remained in the room, discussing with the doctors a medical topic.

Dr. Maguire stated he was in Room 3 before the patient entered, and remained in the room with Drs. Gunning and Davis long after she had left the Dispensary, and that Dr. O. had not been in the room all day. He further stated that he knew the girl, and did not believe her to be in a sound mental condition, as he had previously treated her for hysterical convulsions, after which she had stated she was going to heaven, etc. This fact the guardian admitted; and he, with his wife, acknowledged before the examination that the girl was not of sound mind. The girl, while waiting in the examination-room, was constantly smiling and smirking at reporters, doctors, and even at the judge himself, and this was also noticed. She contradicted a portion of her previous statement, and during the examination was seized with an hysterical convulsion.

The judge was satisfied that the whole story was a delusion on the part of the patient, and the girl not competent, on account of her impaired mental condition, to make a complaint. To vindicate the doctors, he advised a commission of medical men to examine her mental condition, and for that purpose Profs. Hammond, Meredith Clymer, Jacobi, Lusk, and Dr. Dawson were appointed. On the Saturday following, at her residence, these gentlemen examined the girl, and found that she was an old epileptic, of unsound mind, and, moreover, that she was then suffering from a severe attack of specific gonorrhœa. They gave it as their opinion on summing up that the whole story was a delusion on the girl's part, as there was no physical or moral possibility of such an assault taking place as she described. Thereupon the guardian withdrew the charge, promising to send the girl to an asylum.

Although this is as full a vindication as one might desire, the physician has, nevertheless, been placed in a very unpleasant position before the public. In this, as in all similar cases, prevention of the charge would have been so much better than the most satisfactory explanation afterwards, that we are tempted to make one or two suggestions bearing upon that point. It is universally conceded that physicians are particularly liable to charges similar to those made against Dr. Oppenheimer. Considering the opportunities which are offered to disreputable persons for so doing, it is a matter of some surprise that we do not hear of more such cases. It is certain, however, that we cannot prevent such charges being made, but for individual protection we have a right to protest against their publicity until all the facts can be thoroughly investigated. The latter was the intention of Justice Otterbourg, but, in consequence of stupidity on the part of an officer of the court, the charge found its way upon the blotter in the police-station, and was then the legitimate prey of the sensational news monger.

It is a fortunate circumstance that the Dispensary was selected as the place in which the crime was said to have been perpetrated. If the private office of the physician had been named it would have been more difficult to have disproved the charge, and in the mind of the public there might have been much room for doubt as to the completeness of the vindication. Although in the present case the charge was absurd, and was to the last degree such as might have been anticipated from a weak-minded, hysterical female, it does not follow that similar ones may not be made, founded on more reasonable grounds. At all events, while glad of the opportunity for vindicating the medical gentleman who has suffered so much from the public notoriety of this case, we can seize an opportunity, which a general view of it affords, for urging the exercise of the greatest care in the treatment of such cases, and for guarding as much as possible against all suspicion of unprofessional conduct.

It is well understood that there is always more

or less danger of malicious prosecution in treating some females without the presence of a third person, but physicians are very apt to forget this. Especially is there danger when vaginal examinations are necessary, or when anaesthetics are to be administered, and when, during any part of the operation, the surgeon may be alone with the patient. The general rule then is a good one—for every practitioner to be on his guard against such occurrences. With gentlemen in large gynecological practice it is the custom to keep female nurses in attendance, and to send them to the houses of the patients in advance of the visit at which a vaginal examination is to be made, or a gynecological operation is to be performed. Although this is not necessary with ordinary practitioners, and in fact cannot be expected of them, still it is always wise to follow such an example, as near as circumstances will admit.

Fortunately for the profession of medicine the public at large are not willing to credit any scandal of the sort to which we refer. Medicine has earned for itself a general reputation for honorable conduct which long antedates the Hippocratic oath, and which, from time immemorial, has entitled the medical adviser to be admitted into the most sacred confidences of the family circle. Hence, as an offset to any dangers which may beset our reputations as honorable men, we can enjoy the proud satisfaction of knowing that the public at large is prejudiced in our favor, and that the burden of proof of guilt must necessarily rest upon our accusers.

#### OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

THE next meeting of the Medical Society of the County of New York will be held Monday evening, April 22d, when it is to be hoped a report will be made on the Out-Patient Department of the New York Hospital by the Committee appointed for the purpose. There is but one way to view the matter as regards the board of managers, and that is in the light of a gross abuse of medical charity. As we have said on a previous occasion, the profession asks for very little in the way of a reform, and that is a discrimination simply between those patients who can only pay the very small monthly fee and those who are well-to-do, but who are openly encouraged by the present regulations to cheat the poor and struggling practitioner out of his just dues. We have been informed that twelve hundred dollars were collected by these small fees during the first year, and that a motion to divide the sum among the medical staff was lost. This is doing very well for a beginning, and quite conclusively shows what kind of an African there is in the fence. But we do not care to anticipate any of the facts which may quite naturally find their way into the report. We hope, however, that the latter will be made



directly to the Society for some expression of opinion on the part of the members before it is referred to the Comitia.

#### BLACKMAILING OF SURGEONS AND MALPRACTICE SUITS.

It appears, from a closely printed pamphlet of twenty pages just issued by Eugene F. Sanger, M.D., of Bangor, that the statute law of the State of Maine, as concerns prosecutions for malpractice, might be modified with material advantage both to the medical profession and to the public. A suit tried at the January term, 1878, of the Superior Court in Penobscot County, was based, according to defendant, Dr. Sanger, upon the following facts: One Bowley, of the town of Alton, the plaintiff in the case, had manifested latent symptoms of disease of the bones and articular structure of the right knee-joint for twelve years, when, in April, 1876, he received a blow on the internal aspect of the leg just below that joint, causing an abscess in the fleshy tissues just beneath the contusion, and rekindling a tendency to the joint-disease commonly styled white swelling. He had been treated by Drs. Folsom and Perley, of Oldtown, and by Dr. Seavey, of Bangor, who had twice aspirated the abscess, and finally lanced it in August, 1876, over the knee-joint. He had been lame ever since, the abscess having gradually extended itself after the last operation, until on the night of August 10th (the ninth day of the lancing) he sent for Dr. Sanger, who saw him the next day. The swelling had rapidly increased down the leg; the skin was red, infiltrated, baggy, and threatened mortification from the burrowing and detention of acrid matter, decomposed by exposure to the air through the opening. Calling to his assistance the late Dr. Weston, who, previous to his demise, made affidavit to the facts detailed by the defendant, Dr. Sanger examined the joint, Bowley stating that Dr. Seavey had let out the joint-water by careless lancing, and probably ruined his leg. Having passed a grooved director into the wound and explored it cautiously in various directions, they concluded to enlarge the opening, in order to give free vent to the purulent matter burrowing within and gradually diseasing the subjacent tissues; and ether having been administered by Dr. Weston, Dr. Sanger reintroduced the director, with the groove looking towards the surface, ran a knife along the groove so as not to injure the underlying structures, and made a bifurcated incision about three inches in length, with the opening of the fork at the bottom. A cotton tent, to absorb the acrid matter, was introduced into an opening admitting the little finger, which ran backward from the bottom of the abscess towards the calf of the leg. Drs. Folsom and Briggs both testified to having treated the patient's knee, the former for several seasons previous to 1876, and the latter in conjunction with Dr. Seavey; and Bowley was especially notified by Dr. Sanger, on the morning of August 12th, that stiffness of the joint

and the existing disease were events for which he would not be responsible. Bowley remained under Sanger's care twelve days, improved rapidly, and was able to be down-stairs and out of doors within a week after the operation. On August 23d, the patient went to Orono, with the understanding that he was to return in a few days for a more thorough examination of the diseased joint, making it a crucial test that if the abscess did not fill in and heal rapidly, it would confirm the suspicion of established bone-disease, in the event of which surgical interference would be necessary to save the motion of the joint and the limb from amputation. On the following day, August 24th, he sent a postal card to Dr. Sanger: "Need not look for me; two or three doctors say you have injured me; I have two good doctors for my evidence; you must settle all damage."

At Orono, Bowley boarded with Mrs. Deane, who testified to his having placed himself under the joint care of Drs. Fisher and Seavey, to whom he told the story that Drs. Sanger and Weston had cut out a large piece of sound flesh and punctured the capsular ligament, letting out the "joint-water," exposing the knee-joint to the air, injuring the delicate structures of the joint, etc. The case turned upon the evidence of an ignorant Irishman, who deposed that he was present at the operation performed by Dr. Sanger, but of whom Dr. Weston's ante-mortem affidavit stated that he was in and out on that occasion, and not in a position competent for exact observation, even were a hack-driver, such as Finnegan was, competent of intelligent observation under the best of circumstances.

Of course the suit came to naught, as any prosecution so obviously without competent basis properly should. But its initiation serves, under the circumstances, to point a moral that should not be forgotten; and that is, that in some parts of this country the position of the surgeon before the law is a standing invitation to irresponsible parties to engage in vexatious prosecutions, at the instigation of rival practitioners, of a clever and unscrupulous lawyer, or even of personal gain. Whether he defends successfully or not, the reputation of having been prosecuted for malpractice is not a desirable one, and no triumphant vindication can fully resolve the doubt thus cast upon his judgment and ability in his profession; and, if successful, he has to defray the expenses of a defence which has barely served to avert a bill of damages, but cannot reinstate him in his former undoubted professional position. As Dr. Sanger very truthfully observes, wealthy surgeons far prefer, even when they might defend with success, to submit to blackmail and exactions of a pecuniary nature, rather than to accept the unpleasant notoriety of a legal issue in their favor. We believe, however, that this is a mistaken policy, and has a tendency to propagate an evil which in the end reacts with terrible force upon the poorer surgeon who manfully stands up for his rights before the law.

There appear to be two laws respecting malpractice suits in operation in this country. Under the one, the patient has practically nothing to hinder him from starting a malpractice prosecution upon mere speculation or malice. He has only to make a case, and the State takes the responsibility. Under the second, the prosecuting party has to give bonds to pay the taxable costs of the suit, provided it issues against him. In cases of flagrant malpractice, public sentiment is not long, as every careful observer is well aware, in providing the injured party with the means of bringing the action; there are too many lawyers who want business, for an eligible suit against a medical man of property to lie neglected. It should be remembered, also, that there is a class in every community who, though able to pay, never settle their physician's bill without dispute and ill-feeling, and are only too glad to promote prosecutions as a means of gratifying their malice. Taken all in all, it would seem, therefore, that the safeguards against malpractice are sufficient, when its most flagrant aspects are made criminally punishable and the injured party has his undoubted remedy in a bill of damages, without encouraging such suits by a law that allows a pauper to set on foot a causeless prosecution, and, when it collapses, to leave the State and the successful defendant to pay the costs. The surgeon, it must be recollected, makes no pretensions to infallibility. The fact that he has had a special training as an operator enables him to undertake a work with less danger of blunder than a layman, and he is trusted because of his trained judgment and experience. Doing his best, guilty of no intentional blundering, his failures are landmarks of experience for others, although perhaps reacting unfavorably against his own reputation. The common law requires simply the exercise of all the skill he may possess, and when this condition is fulfilled he is not accountable for disastrous results.

## Reports of Societies.

### MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, March 25, 1878.*

DR. J. C. PETERS, PRESIDENT, IN THE CHAIR.

#### THE MECHANICAL TREATMENT OF BOW-LEGS FROM RICKETS.

DR. E. F. HORST read a paper which was devoted to answering the question: "Is mechanical apparatus necessary in the treatment of bow-legs due to rickets?" In the first place he gave a review of the opinions of those who favored and of those who opposed mechanical treatment, and then passed to the question of etiology. Here it was also found that there was a variety of opinion among authors; some regarding it as a condition essentially scrofulous, others that it was in no way associated with scrofula, and again there were those who believed that it was intimately

related to syphilis, while others claimed that bow-legs had no such relation.

The history of a few cases was related which seemed to show that rickets was a disease which might depend upon *diathetic* and *hereditary* influences. The doctor did not wish to assert that struma and heredity were causes of rickets, but it had seemed that children born of strumous parents were especially predisposed to the disease.

With reference to the tendency of bow-legs to recover spontaneously, Dr. Horst thought it could be safely inferred that no such tendency was manifested in the cases which had fallen under his observation. On the other hand, it was not claimed that in all cases the condition would be benefited by the use of mechanical apparatus. An objection had been raised to mechanical apparatus because atrophy of the muscles was apt to follow its use. To a certain extent the objection was good, because the apparatus pressed upon muscles, and, until the child became accustomed to its constraint, it would not run about much; but after a little time the apparatus was worn without difficulty. What atrophy did occur, affected only the muscles pressed upon. It might be supposed that constant pressure would induce paresis of the muscles, but such did not seem to be the case. Forty cases had been examined with reference to that point, and in none was muscular contractility diminished.

Dr. Horst then proceeded to analyze sixty cases which he had had under observation at the Hospital for Ruptured and Crippled; fourteen in which no mechanical treatment had been used; and forty-six which were treated by means of mechanical apparatus.

The conclusions reached were that, in bow-legged children over three years of age, not much improvement attended the use of mechanical apparatus. In none of the forty-six cases was there any increase of the deformity while wearing the apparatus, and in that way it prevented the great curvature. Improvement occurred in all except eight cases. It was as follows: in eight no improvement; in fourteen slight improvement; in eleven fair improvement; in ten great improvement; and three cases were regarded as cured. In one-half of the cases mechanical treatment afforded considerable relief.

It was thought that the use of mechanical without constitutional treatment was not advisable. In the Institution, however, preparations of lime had been abandoned, chiefly on account of their expensiveness. Cod-liver and iron were beneficial as tonics.

The paper was accepted by the Society, and being open for discussion,

DR. LEWIS A. SAYRE remarked that it was plain, practical, common-sense to give the limbs of rachitic children mechanical support until the bones of the legs could, without bending, bear the entire weight of the body. He regarded cod-liver oil and preparations of lime as very essential in the treatment of these cases, for it was the absence of the salts of lime in the bones that made them yield under the weight of the body. It was, therefore, very poor economy to deny the children that which was necessary to give their limbs proper strength. No child was fit to stand whose bones could be sprung out of shape; but if permitted to assume the erect posture the limbs should receive mechanical support.

DR. J. LEWIS SMITH remarked that he had had but little experience in the use of mechanical apparatus in the treatment of bow-legs, but that he had used constitutional remedies in quite a large number of cases. By the early recognition of rachitis he had insisted upon keeping the child quiet, and then had



given medicinal remedies, together with the use of such hygienic measures as were necessary, until the limbs could support the body. The remedies which he had found most serviceable were cod-liver oil combined with the lacto-phosphate-of-lime, and the syrup of the iodide of iron.

DR. SMITH did not fully accept the theory that rachitis was always due to the presence of an excess of lactic acid, although an excess of that acid might prevent the deposit of the salt-of-lime, which was one of the best known features of the disease. He was of the opinion that the disease might exist as a congenital affection. He had seen one case of bow-legs without rachitis.

DR. D. W. YANDELL, of Louisville, remarked that rachitis was rarely seen in Kentucky, but he was not of the opinion, however, that its absence was due to the fact that the water of that region contained a large proportion of lime. The young negro children were very commonly rachitic, but as soon as they were able to run about and get a better supply of food than that obtained from the mother, their limbs began to straighten and they grew up well-formed men and women. It was formerly supposed that the formation of urinary calculi was favored by their limy soil, but in Western Tennessee there was plenty of calculous disease, and yet the soil contained scarcely any lime. He would not like to say that rachitis was due to the absence of lime in the system, or to the presence of an excess of lactic acid, but preferred to regard it as the result of faulty nutrition dependent upon the absence of proper hygienic influences and the use of improper food. Dr. Yandell drew attention to the fact that rachitis occurred among the calves in England and in Texas, and also had been frequently seen in dogs.

The Society then adjourned.

## Correspondence.

### THE TREATMENT OF ABORTION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I trust you will allow me, in connection with a recent case, and even at this comparatively late date, to call attention to an article in the RECORD for Dec. 29, 1877, page 817, entitled: "Abortion, its Symptoms and Treatment. Being the Substance of Four Lectures delivered before the Medical Class of the University of Pennsylvania, by R. A. Penrose, M.D."

The treatment is divided into two heads—the preventive and curative. Under the latter division the following language is used: "If abortion occur during the second or third month, strive to secure a complete evacuation of the uterus. Otherwise the placenta will remain behind, and, becoming detached in the course of a day or so, will give rise to very serious hemorrhage. . . . When the child has been expelled, introduce your finger into the cavity of the uterus, and feel for the after-birth. If it remains in the cavity, it must be removed at all hazards. Have the woman brought to the edge of the bed, place one hand upon the abdomen, and insert a finger of the other hand into the uterus. Press the uterus well down upon your finger inserted into it, and scrape away until you have removed all the after-birth. Never leave this work to nature, but see to it yourself at once. When the placenta and membranes cannot be removed by the finger, various instruments have been devised for seizing them and bringing them out.

. . . . The only instrument that has proved efficient is this species of duck-bill forceps which I now show you. I defy anything to get away which has once been caught by this instrument."

It may seem presumptuous for a "country practitioner" to take exceptions to any of the above language of the distinguished professor, but I beg leave to enter a protest to the radical method suggested. It is not only unnecessary but extremely hazardous, not to say extremely difficult often, to "press the uterus well down upon the finger inserted into it, and scrape away until you have removed the after-birth." In most instances in which we are called to these cases of early abortion we find the hemorrhage excessive, the bedding saturated, the patient exsanguinated, pale and faint, and filled with apprehension. We all know that entire safety is only secured by emptying the uterine cavity of fœtus and placenta, and in our zeal to secure this end we may sometimes be tempted to resort to the methods suggested by the professor, duck-bill forceps and all. If successful, and we can present to the patient and friends at once the little "embryonic man," and the fresh little placenta fished from a mass of clots, it pleases all concerned; and we may leave the premises with a comfortable fee, and the blessings of the patient. The writer has followed that teaching and mode of procedure too often in the past, and failed so signally many times, that he long since abandoned it and pursues a more conservative and therefore "a more excellent way."

Taking for granted that the fœtus has been expelled, and we have to deal with a retained placenta attended with hemorrhage more or less severe, the tampon—made of strips of "old muslin," eight or ten inches square—is resorted to, the vagina being packed from its vault to the vulvæ, and secured by a T-bandage. This soon absorbs the blood in the vagina, and, if well applied, is an absolute protection against further dangerous bleeding. The further loss of a few ounces of blood in many of these cases might prove dangerous, if not fatal.

In about twelve hours the tampon is removed, and usually the placenta will be found attached to the first cloths inserted. If not, the vagina is syringed with carbolyzed warm water and the tampon is removed, using, of course, fresh cloths lubricated with olive oil or castile soap and warm water. After remaining twelve hours longer the cloths are removed, and I have always found the placenta in the upper vagina ready to be brought away with the tampon. I never have found it necessary to repeat the tampon the third time. Its presence softens the os, excites moderate, almost unconscious, uterine contraction, and enables the physician to leave his patient for other duties, confident in the perfect immunity from danger in which he leaves the valuable life entrusted to him.

I may be better understood by reporting in this connection the following typical case which has just occurred in my practice. I treat a goodly number in the same way every year and with equal success.

Mrs. A. B., aged thirty-two, American, in good circumstances, married eight years, has borne four children at full term, and, with this, has suffered four miscarriages. Was called to this lady at 10 A.M., March 24th, ultimo. She informed me that she thought she was nearly four months on in pregnancy. For a week she had daily noticed a slight vaginal discharge of blood. Her children had the whooping-cough, and she had been broken of her rest a great deal in caring for them. She had that morning been about as well

as usual attending to household cares, and while standing at a table she felt a sudden escape of blood from the vagina, and went immediately to bed. She fainted quite away before my arrival. I found her pale and prostrate, with feeble, rapid pulse. A large amount of blood saturated the bed. Included in these clots was a small fetus about three inches in length. The vagina was filled with clots, and blood escaped freely from the uterus. This slight examination induced extreme syncope. I at once "plugged" the vagina, as above detailed. Squibb's f. ext. of ergot was given, which excited vomiting; but this effort acted favorably by forcing blood to the brain. I remained with my patient three hours, using restoratives vigorously, and striving to relieve the deadly nausea and depression. Our efforts were successful, and a good degree of reaction secured. At my evening visit I found no hemorrhage had occurred, and the patient so comfortable that it was decided to leave the tampon *in situ* until morning.

At 6:30 A.M., on the 25th, the cloths were, one after another, removed, saturated with dark blood, and the entire placenta was found in the vagina attached to the upper cloths. The uterus was found well contracted and closed. My patient is making a rapid recovery.

Had I at my first visit persisted in getting away the placenta "at all hazards," by the method suggested by Prof. Penrose, I feel almost sure that a valuable mother and lovely woman would have been lost to her young children and numerous friends.

Very respectfully,

H. C. MAY, M.D.

CORNING, N. Y.

## SUCCESSFUL TREATMENT OF A CASE OF ANEURISM BY THE USE OF THE ESMARCH BANDAGE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In July last Mr. R., No. — Lexington St., Baltimore, called at my office to consult me in relation to a tumor on his right leg. He stated that he had been under treatment for two or three months, and had applied the usual remedies—iodine and other absorbents—but without any perceptible effect. The patient's age was 63; profession, a milliner; temperament lymphatic; nervous system well developed; heart's action full and regular; chest well developed; inspiration and expiration normal; digestive organs in good condition; muscular system relaxed. The only evidence of disease was the tumor, the size of an English walnut, and the shape of an almond, located in the region of the posterior tibial artery, in the lower third. The parts below were œdematous, but whether from the pressure of the tumor on the artery, or the obstruction of the circulation through the artery, I was unable to determine, as the tumor, owing to the thickening of its walls, betrayed no pulsation.

I then explored it with a tenotomy knife, and the resultant intermittent flow and brightly colored blood showed at once that the artery itself was involved, and the tumor necessarily an aneurismal one. Ordinarily the method of procedure would now have been to ligate the artery, but, as I did not like the appearance of the foot, owing to the extent of the effusion, I decided to apply the Esmarch bandage, beginning with the foot and carrying it above the tumor. I did so, and after the lapse of five or ten minutes removed it and followed it with a roller-

bandage, making a compress immediately over the tumor (which, under the pressure of the Esmarch, had entirely collapsed and refilled slowly) with tin-foil. In this condition I left it until the following day, when I found that the foot was still œdematous, though to a less degree than before. The symptoms being favorable, and the patient professing much relief from the application, I determined to reapply the Esmarch and continue the same line of treatment.

On my next examination, three days later, I found a further very decided improvement in the patient's condition. The walls of the tumor had become consolidated, and the collateral circulation established. I now felt certain of the wisdom of the treatment, and for a third and last time applied the Esmarch. Readjusting the roller-bandage every three or four days, I found at the end of the second week that the œdema had entirely passed away, and in five weeks from the date of the first application the patient was able to attend to his business as usual.

W. H. CRIM, M.D.

185 W. FAYETTE ST., BALTIMORE.

## ALCOHOL FOR ANTISEPTIC SPRAY, AND COTTON-WOOL AS A SURGICAL DRESSING.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I report this case for the purpose of directing attention to a simple antiseptic plan of treating wounds, and to illustrate some points in the pathology of cancer.

Mrs. P., aged forty-one; brunette; slight form; general health not good; father and his brother died of cancer; mother's father died of cancer. Patient discovered a tumor in the left breast, Feb. 16, 1878, the size of a hickory-nut. I examined it on the 23d and 27th, and found by touch a rapidly growing tumor, deeply imbedded in the gland, with no adhesions. No lymphatic glands affected. I advised immediate removal. There had been only slight pain. I excised the breast on the 2d of March, just two weeks after the patient's discovery of the tumor, which, it will be remarked, is an unusually prompt resort to surgical aid. The tumor had then attained the size of a hen's egg. The patient was etherized. The antiseptic consisted of a twenty per cent. solution of commercial alcohol, perfumed. It will be found that bacteria cannot live in a thirteen and a half per cent. solution of this description. No spray was used, because every part of the exposed surface could be readily reached by sponging. Before and during the operation the region of the wound, and *everything* that came in contact with it, was frequently and freely disinfected. No portion of the gland was wounded, but it was removed intact by enucleation as much as possible. One artery only required securing, which was the long thoracic. Less than one ounce of blood was lost. Much of the contiguous tissue was then removed, after which specimens of the remaining tissue, nearest the site of the tumor, were examined under a microscope with 300 diameters, and no cancer cells discovered. The wound was now closed by interrupted sutures of white horse-hair. These sutures I have used for some years, because they are non-irritating, and need not be removed until the wound is healed. This is a valuable desideratum in antiseptic surgery. No straps were used. The wound was next covered with very light gauze, and then cotton-wool. The gauze was used to prevent the cotton being car-



rried between the edges of the approximated integument. The use of cotton-wool as a dressing for wounds is, in my opinion, one of the most valuable improvements of modern times. My experience in its use extends over a period of five years, and I am entirely satisfied that the result fully supports the theory of its power to arrest the progress of putrefactive germs. This property is not enhanced by medication, because it is perfect without. Over the cotton-wool compress, and around the body was placed a snugly drawn bandage. The cotton-wool thus protected the wound against bacterian germs, was ready to absorb exuding fluids, and furnished an elastic support to the injured tissue. The value of the latter property cannot be overestimated. The dressing becoming somewhat stained with blood, was changed on the third day, it being detached from the wound by the free use of the antiseptic before mentioned. Subsequent changes in the dressing were only made for the purpose of noting the condition of the wound and surroundings. A small abscess formed just above the outer angle of the wound, and opened into it. This caused the patient and your reporter some uneasiness until its true character was determined. *Not one drop of pus formed upon the incised surface.* Only two doses of opiates were necessary to afford relief from pain. I removed the sutures March 21st, the wound being healed. The physical properties of the horse-hair had in nowise changed, and the wound of the small Glover's needle had not become enlarged. The cicatrix will be protected from irritation or injury by being covered with a soft pad, with rubber dam next to the flesh. If irritation is the exciting cause of cancer, it will be observed that, in this case, the prospect of a recurrence has been reduced to a minimum.

This description applies to many another wound I have treated in the same manner, with the exception of the kind of antiseptic used. My patient, then, had not to recover from the depression of chloroform; had not to be offended by the diabolical odor of carbolic acid; had none of the stench to endure that results from decomposition in wounds, and had simply to be let alone by the nurses.

The principle of the antiseptic treatment of wounds consists in the prevention of the ingress of putrefactive germs to the exposed surface, from the beginning of the operation to the permanent closure. The plan I have described for the accomplishment of this object is a simple one, is equal in efficiency to any, and can be easily applied in all cases. I have seen wounds fail to do well under cotton-wool, but never if first thoroughly disinfected.

An examination of the removed portions showed an elastic but firm tumor, cutting like the traditional raw turnip. To the unaided eye it appeared to blend perfectly, at its surface, with the gland, but its borders were more distinct under the scalpel. Its growth was interstitial as to the gland, and not by displacement, as is that of benign tumors. It proved to be a cystic fibroma, containing a starchy appearing fluid. The anterior wall was several times thicker than the posterior. The fluid was rich in round cancer cells, and had the same microscopical appearance of the "cancer juice" obtained from the walls of the tumor. These characteristic cells were as numerous in the gland at the distance of half an inch from the tumor as in the tumor itself. They gradually decreased in numbers from this point towards the circumference of the gland, until, in the extreme border, they were found to be quite isolated. No cells were found in the adipose or other tissue outside of the gland.

Many deductions of a practical character, referring

to diagnosis, prognosis, pathology, and treatment, may be founded upon the history of, and the pathological conditions developed in this case. That to the intelligent professional reader they require no summarizing, is my belief, and therefore my reason for not further encroaching upon your space.

DEWITT C. WADE, M.D.

HOLLY, MICHIGAN.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 7 to April 13, 1878.*

MIDDLETON, P., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, ordered before the Army Medical Board, New York City, for examination for promotion, and after examination to report by letter to the Surgeon-General. S. O. 72, A. G. O., April 6, 1878.

JESSOP, S. S., Capt. and Asst. Surgeon. Granted leave of absence for one month from June 1, 1878, and his resignation accepted to take effect June 30, 1878. S. O. 74, A. G. O., April 9, 1878.

POPE, B. F., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, ordered before the Army Medical Board, New York City, for examination for promotion, and after examination to report by letter to the Surgeon-General. S. O. 72, C. S., A. G. O.

CORSON, J. K., Capt. and Asst. Surgeon. Granted leave of absence for one month. S. O. 63, Dept. of the East, April 8, 1878.

HAVARD, V., 1st Lieut. and Asst. Surgeon. Granted leave of absence for six months, with permission to go beyond sea. S. O. 71, A. G. O., April 5, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 13, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| April 6, 1878.... | 0             | 6              | 78             | 3                          | 116      | 58          | 0          |
| April 13, 1878... | 0             | 9              | 79             | 3                          | 89       | 38          | 0          |

ORIGIN OF BACTERIA IN FEVERS.—The *Gazette des Hôpitaux* of the seventh ultimo gives a pretty full report of a lecture delivered before the Academy of Medicine, Paris, on the evening of the fifth, by M. Colin, Pasteur's most determined critic and opponent, who discussed with great observational and experimental detail the origin of bacteria in the so-called carbonous fevers. One of the points to which M. Colin addressed himself was, what becomes of the poison during the period of incubation? In other words, is it lodged in certain organs and tissues only, or in certain vascular tracts, or is it disseminated throughout the whole system? In the absence of facts furnished by clinical observation, M. Colin has long been engaged

in a series of experiments looking to the resolution of this doubtful issue; and, after many abortive attempts, he believes that he has settled the question, and announces the following summary of conclusions:

1. That the lymphatic glands are the organs first to acquire the virulence, and that from these centres of incubation it penetrates throughout the whole animal economy.
2. That these glands become affected successively, in the order of their situation in the lymphatic tract, and of their distances from the point of inoculation.
3. That they are transferred into centres of virulence by the regeneration or reproduction of the poison in their tissues or in the liquids impregnating them.
4. That this poisonous property of their fluids and secretions is developed for a certain appreciable period before the appearance of bacteria in the glands and vascular tract.
5. That the glands are the special receptacles and regenerating centres of the poison during its whole sojourn in the system.
6. That its activity in these organs is indicated by tumefaction, cedema, a reddish tint (*teinte rougeâtre*), and by interstitial hemorrhage,—in a word, by a specific irritation, succeeded, after an appreciable period of time, by the development of bacterial organisms.

M. Pasteur coincided with M. Colin as concerns the fact of the penetration of the lymphatics by the bacterids as one that had been observed by most physicians who had made careful studies of the carbonous fevers. But he argued from the fact that injecting bacterids or bacterial fluids into the system produced just such local symptoms as M. Colin had described of the glands, that it must therefore be inferred that the organisms had been overlooked in M. Colin's experiments until they had multiplied in large numbers. M. Colin reaffirmed his position, however, and maintained most distinctly that such fevers were marked by two periods of virulence as respects the glandular structures and fluids; namely, first, in the order of time, a period of glandular irritation and poisoning, with which no bacterids nor germs of bacterids are associated; secondly, a period during which these organisms occur in abundance in the glandular tissues and secretions. M. Pasteur retorted that if the observations of M. Colin were well taken, that gentleman had made the grandest discovery of modern times, and had verified the spontaneous generation of bacteria—a point which he (M. Pasteur) had been seeking to determine for twenty years or more, without success. A commission, consisting of MM. Pasteur, Colin, Velpeau, and Davaine, was appointed to observe the experiments of M. Colin and to report upon them to the Academy.

**PROBABLE CAUSE OF CRETACEOUS DEGENERATION OF THE ARTERIES.**—Prof. Gubler communicates to a medical society in Paris some valuable observations as to the probable cause of cretaceous degeneration of the arteries, which he finds to be extremely common with the lower classes in France—so common that arterial atheroma is of frequent occurrence in the hospitals, in men of forty, thirty, and even twenty years of age. He regards the abuse of alcohol as one of the potential causes of this alteration in structure, but thinks its importance as such is somewhat exaggerated by the profession at large, and names the almost exclusively vegetable diet of these classes as probably the primary factor in producing the disease, which, he observes in corroboration, is very rare in persons subsisting in the main upon animal food. In further confirmation of this view, he instances the extreme of atheromatous degeneration in monasteries, and finds that monks confined to vegetable diet, frequent-

ly show great induration of the middle coat of the arteries at the early age of thirty-two.

**AT ST. CATHARINE'S HOSPITAL, BROOKLYN, E. D.,** it appears from the seventh annual report that 1,325 dispensary cases have been treated, 767 medically, and 558 surgically, against 623 admitted to the wards of the institution. The classifications of diseases evinces some points of interest as to the comparative frequency in the Eastern District, rather the uncleanliest section of Brooklyn, of maladies presenting almost a reverse of the statistics in the better quarters of the city. With but one case of gout and two of syphilis in the record of constitutional diseases, 35 cases of articular, and 3 of muscular rheumatism occur. Zymotic diseases include 12 cases of malarial *enchéuxia*, and 53 of active intermittent, balanced against 5 of typhoid, 2 of scarlet fever, and 5 of diphtheria. Of the 17 cases of disease of the circulatory system, 9 are concerned with insufficiency of the mitral valve; and in affections of the respiratory organs, pulmonary consumption has 107 cases against 41 of all other descriptions. Gastritis appropriates 20 cases out of the 47 accredited to the digestive organs, and Bright's disease 8 out of the 10 recorded as affections of the urinary organs. Noticeable at a glance, in diseases of the nervous system, is the great preponderance of cerebral apoplexy and epilepsy over all others.

**A REMEDY FOR THE ERUPTION OF POISON OAK, IVY, AND SUMACH.**—Dr. S. A. Brown, U.S.N., Mare Island, California, believes that he has found a specific for the eruption caused by contact with poison oak, sumach, ivy, hunkoo, cashew nut, etc. He writes:—"This specific is *bromine*. I have used it with the same unvarying success in at least forty cases. The eruption never extends after the first thorough application, and it promptly begins to diminish. Within twenty-four hours, if the application be persisted in, the patient is entirely cured. There is no pain attending its use, as from that of astringents. Of course, the epidermis peels off as after other treatment.

"I use the bromine dissolved in olive oil, in cosmo-line, or in glycerine. The application with glycerine is painful, and, I think, possesses no advantage to compensate for the irritation. The strength of the solution is from ten to twenty drops of bromine to the ounce of oil, used by rubbing gently on the affected part three or four times a day, and especially on going to bed at night. You wash off the oil twice a day with castile soap.

"The bromine is so volatile that the solution should be renewed within twenty-four hours of its preparation, as it will get out of a bottle, however well corked. It is best to stand the bottle on its cork end, in the intervals of application.

"I have seen no publication of this treatment, and I, therefore, send you my experience with it, hoping to attract to it some little attention, and do the good which must result from its adoption."

**THE HANGING OF POLISH SURGEONS.**—Dr. W. B. Neftel, of this city, and formerly a surgeon of the Russian Army, has called our attention to a denial of the report concerning the hanging of the Polish surgeons at Sophia, published in our issue of March 30th. Said report was extracted from an Austrian paper of the issue of Feb. 24th, but the contradiction in the same journal a few days afterwards escaped our notice.

**DR. PAUL F. MUNDÉ**, of this city, was recently elected a Corresponding Fellow of the Edinburgh Obstetrical, and of the Philadelphia Obstetrical Societies.



## Original Lectures.

### LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

By E. C. SEGUIN, M.D.,

CLINICAL PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

#### LECTURE I.

SUMMARY—INTRODUCTORY REMARKS—HISTORICAL CONSIDERATIONS CONCERNING LOCALIZATIONS IN THE SPINAL CORD—PHYSIOLOGICAL ANATOMY, AND PHYSIOLOGY OF THE SPINAL CORD.

GENTLEMEN:—The Faculty having again done me the honor to assign to me some of the extra Thursday Lectures this winter, I have chosen as a subject the very practical question of the Localization of Diseases in the Spinal Cord and Brain.

This topic is now engaging the attention of many of the best minds in the profession, and it is being made the object of careful observation and ardent controversy. Well-reported cases bearing on the question abound in the current medical literature.

The subject has two principal aspects. One of these, that relating to the doctrine of the localization of functions in the brain and spinal cord, is more especially interesting to the physiologist and psychologist. The other aspect, that which concerns us as practical physicians, is with reference to the possibility of making an accurate diagnosis of the seat of the lesion in organic diseases of the nervous centers.

It is this second aspect of the question which I shall discuss with you; and I shall endeavor to do it in as concise and practical a manner as possible—in such a way, in short, as shall enable you to utilize in your future daily practice the various principles and propositions which I shall have the pleasure of presenting to you.

In other words, the following lectures will be upon the rational diagnosis of cerebral and spinal diseases.

In practice, when we have completed the examination of a patient, several questions are put to us by the patient, by his friends, or by ourselves. These are in chronological order: Is there disease? Where is the disease? What is the disease? What are we to do for the cure of the disease or for the relief of the patient? Will the patient die or recover?

Of these questions the one which our client and the world at large consider the most important, is the fourth—that relating to treatment and cure. This preference is natural, but highly unscientific; it is a manifestation of that untrained mental action which demands results and scorns methods, which welcomes empirical achievements (provided they be agreeable), and which conduces to the perpetuation of quackery of all kinds. But to the physician who is not a mere prescription-writer, who aims at infusing as much science into his practice as possible, and who believes that he is not in the world for the purpose of gratifying his patients at so much per visit, but that he owes himself a debt of training and self-culture, and who has a sincere regard for science—to such a physician

the first three questions assume a justly great importance. Pray observe that I do not say paramount importance, but great importance. And the superiority of the humanitarian over the scientific duty becomes less glaring if we bear in mind the truth—and I firmly believe it to be such—that success in treatment now depends, and in the future will still more closely depend, upon the scientific study of the human subject in health and disease. In other words, I would impress you with my own conviction that the best trained and most scientific physician, if he be not a closet student and theorizer, is the best practitioner.

We occasionally hear of an over-fine diagnosis, of extreme caution in the treatment of disease, and of the sweeping application of physiological laws to practice by men who are said to be "too scientific;" but who can number the errors, nay the sacrifices of life which must be laid at the door of the falsely so-called "practical men," who despise learning and scientific methods? Those of us who see something of the rarer and more formidable kinds of disease fully realize that in medicine, as probably in other applicable sciences, ignorance leads to rashness and crudity in practice, while ripe knowledge conduces to success, or, at any rate, to caution in prognosis and expectancy in treatment.

Of the three diagnostic questions: Is there disease? Where is the disease? What is the disease? the second is the one which forms the key-note of these lectures. Where is the lesion producing the disordered actions or symptoms? The method to be followed in arriving at the solution of this question varies somewhat in different departments of medicine. Some lesions can be seen by the trained unaided eye, or felt by the skilled hand; the seat of others can be determined by auscultation and percussion, by the aid of instruments, such as the ophthalmoscope, laryngoscope, speculum, etc. But in the study of the nervous system greater difficulties are met with; we are, to a great extent, deprived of these physical aids; we cannot appreciate the condition of the brain and spinal cord directly by our special senses, but only by a proper interpretation of the way in which the functions of these parts are performed. In other words, the diagnosis must be made chiefly by reasoning.

What are the conditions or data necessary for correct reasoning in nervous pathology? An enumeration of these will be a brief statement of the way in which I purpose treating the questions before us.

First, you should possess a knowledge of the physiological anatomy of the parts concerned, viz., the brain and spinal cord. You are not obliged, for this purpose, to know much of the histology of the nervous tissue, but you should understand the arrangement of its various parts as recently revealed to us by perfected anatomy and embryology.

Second, you must be well versed in the mode of life and action, or physiology of the cerebro-spinal axis. You must understand, as well as the present state of science allows, what parts are excitable and what inexcitable, which transmit impulses and sensations, which receive impressions, which originate the motor impulse, and which are endowed with special functions.

Third, you need a thorough understanding of the perverted functions of the nervous system, and of other systems connected with it—i. e., of the symptoms of nervous disease; you should cultivate semeiology. And it is here more especially that previous general medical training is of great aid to the student of nervous pathology.

Fourth, you must have a clear conception of the

\* Delivered at the College of Physicians and Surgeons during the months of December, 1877, and January, 1878.

empirical knowledge already gained by numerous post-mortem examinations of persons who have died with disease in the nervous system. You should not accept every proffered autopsy, but critically analyze before making use of it. You may demand that it shall approximate a physiological experiment in exactness and in simplicity.

Fifth, and not least, it is necessary that you have and use a keen critical and logical sense in the appreciation and combination of the above normal and morbid phenomena, in order that you may arrive at sound inductions.

The importance of the combination of the above notions for the study of nervous diseases is immense. Any hypothesis, to be acceptable, must be based upon anatomy, physiology, semeiology, and pathological anatomy. The various crude theories which have reigned awhile in medicine were such as did not fulfil this requirement: some of them were deductions from anatomical data, others applications *a priori* of physiological laws to medicine, others still based solely upon clinical studies, or upon autopsies. Indeed an effort is now being made to break down the growing doctrine of localization of lesions and functions in the brain by just such a one-sided argument. It is claimed by a high authority that facts of the fourth category (post-mortem examinations) contradict, in a perfectly overwhelming manner, the doctrine in question. Now, I trust that, however feebly I may handle the subject, I shall yet be able at the proper time to give you good reasons why we must decline to accept and apply that authority's facts as he does.

Of the few who now deny that we can accurately localize disease in small parts of the brain during the life of the patient, I would, finally, make this critical remark. Their seemingly crushing argument is based upon what seems to me a fundamental error in the appreciation of natural phenomena, and that is, not making allowance for variability and mutability in the highly organized human frame. We now, since the labors of Darwin more particularly, admit that species in the animal and vegetable kingdoms are not fixed forms, but that they may pass into one another by almost infinitely numerous and delicately graded varieties; we know that the ultimate composition of high organic bodies (proximate principles like albumen) varies somewhat; we are prepared to occasionally find (passing to the human organism) the viscera transposed, or to meet with an exanthematous fever without its rash, with a pneumonia unaccompanied by expectoration, or with a painless peritonitis, etc.: in other words, we are, as naturalists and physicians, ready to admit variability and irregularity in the organism. Yet, in spite of all this general and special knowledge, the opponents of localization maintain that there can be no irregularity in cerebral action, and they say, by implication at least, that the decussation of the anterior pyramids must always take place, and be total. They demand of those who believe in localization that they should be able to make *every* observed case harmonize with their generalizations. Is this reasoning fit to be applied to natural history? Are we prepared to make use of the mathematical method in pathology?

I shall treat, first, of localizations in the spinal cord and medulla oblongata; and, second, of localizations in the brain proper.

I take up the spinal cord and medulla first because the phenomena are there more simple, and there is less controversy about them than there is with reference to the brain.

#### HISTORICAL CONSIDERATIONS.

The now voluminous literature of diseases of the spinal cord does not teach us much with respect to the localization of its diseases. The writers of the end of the last century and of the first quarter of this—Frank, Sauvages, Rachetti, Abercrombie, Ollivier—adopted a pathological classification, which has been generally followed in systematic treatises since. Frank recognized, in a pretentious section of his great work on medicine, only spinal neuralgia (rachialgia), myelitis and spinitis (rachialgitis), and hydrorachis. Ollivier, in his last edition, 1837, enlarges greatly upon this primitive list, and describes at least eleven morbid conditions of the spinal cord and its membranes. Brown-Séquard, in 1861, besides demonstrating, as he thought, the existence of reflex paraplegia, treats of all diseases of the spinal cord briefly, and makes an attempt at localizing lesions. He admirably points out how we can diagnose a lesion occupying one-half of the spinal cord (hemi-paraplegia and spinal hemiplegia), and also how the height of a lesion in the cord may be estimated. Besides, he makes the first attempt at localizing disease in one of the columns of the cord, saying that when the anterior columns are alone inflamed there is paralysis without anesthesia and little dysæsthesia. He (not knowing of Türk's researches) doubts the pathological independence of locomotor ataxia.

In 1864 appeared Jaccond's excellent book, which chiefly treats of semeiology and ætiology of spinal diseases. He makes an advance upon previous writers, by considering the question of diagnosis of location of the lesion quite fully, and reaching the following conclusions: 1. Disease in the antero-lateral columns produces palsy without alteration of sensibility; 2. There are no symptoms clearly indicating disease of the anterior gray matter alone; 3. It is easy to recognize if the æsthesodic tract is diseased (sclerosis of the posterior columns) by pain, increased reflex,\* and anesthesia; 4. Lesion in one-half of the cord low down is indicated by hemi-paraplegia, high up by spinal hemiplegia. Leyden, writing in 1874-6, adopts the usual pathological classification, and his work is an admirable treatise. He in numerous places refers to the localization of lesions in the posterior columns, the lateral columns, the anterior cornua, the centre of the cord, and the nuclei of the medulla oblongata, pointing out the diagnosis of each. Hammond, 1876, gives a good *résumé* of the state of knowledge on the subject, basing his classification in part upon notions of localization.

But it is to monographs that we owe most in this branch of pathology.

In 1851 Türk demonstrated the extent and exact distribution of descending degeneration in the spinal cord secondary to cerebral lesions, and in 1857 he found the lesion in locomotor ataxia (then called *tabes dorsalis*) to be sclerosis of the posterior columns; Dr. J. Lockhart Clarke discovered the lesion of progressive muscular atrophy in 1861-2; Prévost that of infantile spinal paralysis in 1865; Prof. Charcot that of progressive labio-glosso-laryngeal paralysis in 1868; in 1865 the same observer published an autopsy of a case of sclerosis of the lateral columns (three others had been published by Türk in 1856), and in 1875 Prof. Erb, of Heidelberg, and Prof. Charcot delineated the clinical features of this disease—spasmodic

\* This word is used in a substantive sense, in imitation of German writers, to designate reflex movements. I think that the word is now much used orally by clinical teachers in this way.



tabes, or spastic spinal paralysis. In 1874 Charcot described a mixed type, in which disease of the anterior gray matter is combined with sclerosis of the antero-lateral column—amyotrophic lateral sclerosis. Disease in the central gray matter has been well studied by Hallopeau 1869-70, and Schüppel, and by Leyden, 1876. During the present year Prof. Flechsig has begun the publication of a series of papers upon the systematic diseases of the spinal cord, a work of the greatest merit, based in greater part upon the author's own pathological observations, and upon his yet more important embryological and microscopical studies upon the structure of the spinal cord (1873-6).

As regards the diagnosis of the location of non-systematic lesions (focal lesions) of the spinal cord we have made no material advance upon the data given us by Brown-Séquard in 1861.

Let us now briefly review so much of the anatomy of the spinal cord as is indispensable to the study of the localization of its functions and lesions. I shall take it for granted that you are acquainted with the usual descriptive anatomy of the nervous centres, and call your attention chiefly to their physiological anatomy.

The spinal cord is a mass of white and gray nervous matter disposed lengthwise in columnar form, and varying in relative proportions at various points. This finer arrangement of the gray and white columns is best studied in transverse sections made at different heights in the spinal cord—for example, through its upper cervical part, through the cervical enlargement, through the lower dorsal region, through the middle of the lumbar enlargement, and near the end of the cord. In every such section we find the same parts, white and gray, but the shape of each is very different on the various surfaces. In general terms the gray substance or vesicular neurine is disposed in the centre of the section in the shape of an irregular letter H, with clubbed ends forward. These ends, anterior and posterior, are called horns; they are symmetrical on either side of one section, and the posterior reach out to the very periphery of the cord, dividing the inclosing white substance of each half of the section into two parts, the posterior column and the antero-lateral column. By means of pathological study, by histology, and more especially by means of embryology, these white columns have been much more subdivided. Following the latest arrangement by Flechsig, we find in each lateral half of a transverse section of the spinal cord the following parts, proceeding from behind forward:

1. A small triangular column of varying size, lying next to the posterior median septum, in contact with its fellow of the opposite side, the posterior median column, or column of Goll.
2. Externally to this, lying between it and the inner margin of the posterior gray horn, is a broad band containing the sensory fibres of the posterior roots, the posterior root zone, or *zone radicaire postérieure* (Charcot), or column of Burdach. These two constitute the posterior column of the simpler classification.
3. A small zone lying next to the periphery of the cord, just anterior to the apex of the posterior horn—the direct cerebellar column.
4. Between that and the body of the posterior horn lies an ovoid mass of fibres, the crossed pyramidal column—derived from the opposite cerebral hemisphere by way of the anterior pyramid.
5. Anteriorly to these two, occupying the sides of the section and reaching inward to the gray matter, we find the lateral columns.
6. Lying in front of the anterior gray horns, and

extending forward to the periphery, is the *zone radicaire antérieure* (Charcot), or anterior fundamental column.

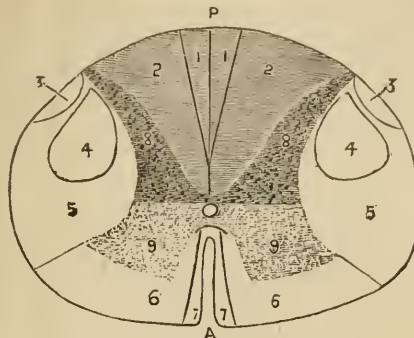


FIG. 1.

Transverse section of the spinal cord.—A. Anterior median fissure; P. Posterior median septum; 1. Columns of Goll; 2. Columns of Gerlach; 3. Direct cerebellar column; 4. Crossed pyramidal column; 5. Lateral column; 6. Anterior fundamental column; 7. Direct pyramidal column; 8. Posterior gray horns; 9. Anterior gray horns. Stippled part=gray matter. Shaded part=aesthesodetic system. Unshaded part=kinesodetic system.

7. A strip of white matter lying on the margin of the anterior median fissure, extending quite to its bottom, is the column of Türek, or better, the direct pyramidal column—derived from the cerebral hemisphere of the same side, by way of the anterior pyramid.

The simple division of the gray matter into 8. The posterior horn; 9. The anterior horn, will suffice for our purpose. In the accompanying wood-cut the above subdivisions are indicated by numbered spaces.

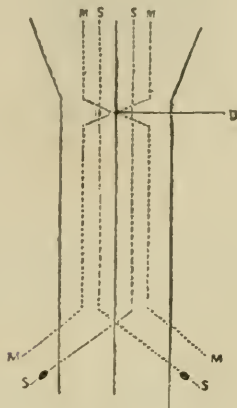
In an equally aphoristic manner allow me to recall to you the chief physiological attributes of the spinal cord:

1. It is an organ for conduction. Conduction takes place in two directions, centrifugally for motor impulses, and centripetally for sensory impressions. The paths (I will not say fibres) for sensory impressions ascend only a very small distance in the posterior columns (columns of Burdach) before they enter the gray matter, and there at once pass over to the opposite half of the cord (in man at least). Consequently we say that the conductors of sensation decussate in the spinal cord throughout its whole extent. Motor paths, on the contrary, in the spinal cord proper, remain in one-half of the organ white and gray matters; they have already decussated (in part) at the crossing of the pyramids. A strange fact to be borne in mind is that very little gray matter may suffice to transmit all sensations. The illustration (Fig. 2) represents, after Brown-Séquard, the course of sensory and motor conductors.

2. The excitability of various parts of the spinal cord is a point of some interest. It has been quite well settled that no part of the healthy spinal cord is excitable, except the posterior columns; though very lately Professor Vulpian has discovered traces of excitability in the internal part of the anterior column. However, in morbid states, a great change occurs, and even the unquestionably inexcitable gray substance becomes excitable, giving rise to various morbid sensations and to spasm.

3. The spinal cord has an autonomy of its own, giving rise to reflex motor impulses, and producing others spontaneously. It is also probable that sensory impressions are rendered more perfect in the spinal gray matter, but I am indisposed to attrib-

ute consciousness to it. This organ furthermore presides over (executes) many automatic acts, many of them highly complex; such as walking, swimming, standing, to a certain extent eating, dressing, playing upon musical instruments, etc. Part of the spinal gray matter is slowly and painfully educated to perform these actions, and can afterward do them without any marked cerebral interventions.



[FIG. 2.]

Course of motor and sensory paths in the spinal cord, after Brown-Séquard.—D, Decussation of pyramids; M, Motor paths; S, Sensory paths.

4. Besides, the spinal gray matter is supposed to possess a trophic function, to preside over the nutrition of muscles and other tissues, partly through the bloodvessels, and partly directly. This question is under discussion, but the fact remains, that disease of the anterior gray matter produces marked atrophy of muscles, and may cause joint-lesions. The spinal cord is also said to embrace several so-called centres; a genital or genito-urinary centre in the lumbo-dorsal region, a cilio-spinal centre in the lower cervical region, and various subordinate vaso-motor regions; of these I recognize only one as useful in such a study as the one we are beginning, viz., the cilio-spinal centre (Budge, Waller, Brown-Séquard). There is a part of the spinal cord (in each of its halves), extending from the fifth cervical vertebra to the second dorsal vertebra, which contains vaso-motor nerve-fibres for the corresponding side of the neck, face, and eye. It also contains fibres whose normal action is to cause a dilatation of the pupil. In estimating the height of a lesion in the spinal cord a knowledge of the location of this cilio-spinal centre is of real utility.

To sum up the physiology and anatomy of the spinal cord I may divide its section-surface into two great territories, as indicated in Figure 1. The larger part, not shaded, embracing the anterior horns and all the antero-lateral columns, may be designated as the kinesodic system, and the smaller shaded portion, including the posterior horns and the posterior columns, as the æsthesodic system. As the names imply, the latter system conveys and receives sensory impressions, while the latter transmits and originates motor impulses, and possibly is trophic in function.

In the next lecture I shall systematically treat of the localization of disease in these physiological and anatomical subdivisions of the spinal cord; first in the two systems, and second, in each column or horn within each system.

## Original Communications.

### SUCCESSFUL (INTERNAL) USE OF NITRITE OF AMYL IN DILATED HEART WITH AORTIC REGURGITATION.

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THE following is so remarkable, as showing the efficacy of medication in an extreme and almost hopeless case, that its publication may prove of value in some similar emergency. It is therefore submitted as concisely as possible.

Mrs. H., æt 54, of full habit and a tendency to *embonpoint*, of nervo-sanguine temperament, and without hereditary tendencies to cardiac disease, came first under observation three years since, for dyspnoea, and slight œdema of the feet. A careful examination revealed a soft systolic murmur at the base, with increased area of dulness and depression of the apex beat, with displacement toward the left.

Impulse exaggerated and some increase of arterial tension, as shown by the sphygmograph. The treatment at this time it is unnecessary to dwell upon. An apparently permanent relief, however, was secured, and nearly a year elapsed before a second attack. This was similar, except that albumen was found in small quantity in the urine. During the past eight months more or less treatment has been necessary for slight dyspnoea, occasional nausea, puffiness of the extremities, and the other natural consequences of cardiac disease, up to the 12th of January, ult., when unusual drowsiness, constipation, severe headaches, and occasional attacks of nervous excitement, with scanty urine, indicated the presence of uræmic poisoning. For a few days these symptoms continued, apparently modified by the ordinary treatment for such conditions. Arterial tension, however, gradually increased; the excitement became almost maniacal; the heart beat with extreme violence, but with no great rapidity; the pulse was rarely over 90, the temperature 101°.

Jan. 16th, vomiting, faintness upon exertion, and the intense headache with congested conjunctivæ, sleeplessness and profuse diarrhœa, seemed to show the inefficacy of other remedies, and digitalis, which had usually given relief, was administered at four-hour intervals in doses of ten drops of the tincture. Hoffman's ether, alone or combined with tincture of sumpul and tincture of valerian, with an occasional Tully's powder, were also resorted to as necessity arose. Up to this time it should be stated that digitalis in infusion with acetate of potassa had been employed in conjunction with diaphoretics.

The heart under these circumstances was regular in rhythm. The pulse 90, the arterial tension high; the aortic obstructive murmur clear and distinct, the impulse greatly exaggerated; the apex more displaced than formerly, and some appearance of pulsation below the sternum. At times, however, I fancied there was pulsation in the jugulars. With the previous history of the case it was evident that dilatation was becoming a marked factor in the disease.

Jan. 22d, the symptoms were more favorable. Each dose of digitalis gave relief to such a degree that the patient called for it repeatedly, unwilling to wait the allotted interval. Ten minutes seemed to her to be



sufficient for it to begin its favorable action, and two hours the maximum of its duration. The condition of the kidneys was watched as to the guide to quantity, as suggested by Balfour. For five days improvement progressed satisfactorily; headache (with assistance of monobromide of camphor), excitement, undue violence of cardiac action, nausea, and deficient excretion of urine, ceased to excite apprehension. On the 28th a recurrence of diarrhoea, fulness of the head, and jactitation, with faintness on rising in bed, indicated the increase of the new complication. At each visit the jugulars more clearly pulsated; the heart's impulse grew decidedly weaker, the throbbing below the sternum was visible to the ordinary observer, and on auscultation the obstructive basic murmur was replaced, or rather at first accompanied, by one of a soft-blowing character, diastolic, and therefore regurgitant. The apex beat was undistinguishable. From this time until the 7th of February, a period of ten days, the gradual increase of the symptoms enumerated, prolonged coldness of extremities, faint and irregular pulse, attacks of partial syncope, even upon moving the head, inability to retain nourishment or obtain sleep, and on the date above given (the 7th) a convulsion of clonic character, seemed to indicate the approach of a fatal termination. Both ventricles and the left auricle were immensely dilated, the aortic valves incompetent, and one loud swashing sound could alone be heard at the base. The sight, moreover, was completely gone. Twice during the interval of ten days the urine was examined, and no albumen was found. *With the reduction of the high arterial tension albumen ceased to be eliminated.* No microscopical examination was deemed necessary.

Digitalis was still repeatedly called for, and the suggestion of Balfour, in his recent work on cardiac disease, that bold and heroic doses are indicated in such cases in spite of the general professional belief to the contrary, and the persistent declaration of the patient that she must have it in larger doses, led me to debate the advisability of doubling the already large quantity she was taking (30 drops of the tincture every two hours). In this emergency my friend, Dr. Wilmarth, saw the case. To him, as to myself and to the relatives of the patient, it seemed a hopeless one for further medication. It is unnecessary to enumerate the various adjuvant remedies resorted to during this and the preceding days; suffice it to say that, fearing that already too much digitalis was being administered, I ordered its discontinuance. The result was alarming. Gradually the pulse disappeared from the wrist; faintings at intervals of a few minutes; agonizing pain in the præcordia, coldness of the whole surface, lividity of countenance, and three convulsions within the twenty-four hours, during which I boldly withheld the drug, compelled its new administration. Forty drops of the fresh tincture repeated in an hour and again repeated failed, however, to change the aspect of the case, and summoned in haste with the assurance that complete unconsciousness had supervened, I took with me some pearls of nitrite of amyl for inhalation.

The effect of the first one was magical, but of brief duration. Of the second the same; the skin, however, became warmer and the face of more natural color. Feeling renewed confidence, in the absence of any untoward result, and assured that to keep the capillary circulation free was the only means of relieving the overburdened heart, I began internal administration of the amyl, suspended in a mucilaginous liquid (in doses of five minims every two hours). The effect was apparent to the friends from the first, and the re-

turn of the radial pulse, the natural character of respiration and gradual subsidence of the fainting attacks, the return of sight to the eyes, and, indeed, a marvellous change which seemed incredible was speedily wrought in all the symptoms of the disease. For five days this dose, with a steady improvement, was maintained.

Proper nourishment was given every hour, and on the 16th of February the interval for the amyl was lengthened to four hours, and so continued to the 21st. From the 21st to the 28th three minims only were given at each dose, and a tonic of quinine, iron, and strychnia added. Feb. 28th, and until March 3d, five minims three times daily were given. From the 3d to the 8th three minims three times daily, and on the 8th all remedies were discontinued. The patient was now able to walk about without discomfort, the diastolic murmur at the base had disappeared, the heart could be examined without pain from the pressure of the stethoscope, and all the evidences of dilatation and aortic incompetency had entirely disappeared.

There remained the old condition of enlargement with displaced apex, the obstructive murmur over the aortic valves with the first sound, and the very slight tendency to oedema of the ankles and feet. March 13th the last call was made, and the patient, who had twice the day before been down-stairs, was permitted to ride, and declared herself well so far as she could herself discover, only asking that she might use digitalis again if she felt its need, as she was somewhat saturated with nitrite of amyl (!).

In conclusion it may be said that while it is not by any means to be inferred that this patient has or will entirely recover, no more clear evidence of the value of any remedy could be adduced than has been here observed, and if, through a desire to avoid exaggeration, the account has failed to present it clearly, it is a matter of regret.

I would add that as convalescence progressed the amyl became somewhat distasteful, and the stimulating effects upon the heart so marked, that it was necessary to vary the dose and interval as described. The sensations experienced were fulness and tingling of the extremities, a sense of warmth and exhilaration, and just before its discontinuance a little nausea.

## CASE OF UNRECOGNIZED, FATAL HEMORRHAGIC SMALL-POX (VARIOLA HEMORRHAGICA).

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Two years ago I reported a case of unrecognized, fatal hemorrhagic small-pox in the mother, and fatal small-pox in the new-born child,\* and within a year later I was called in consultation by another physician to see a similar case, which had been previously seen by one physician of New York of some eminence without recognizing its nature. This case was also followed by a case of ordinary small-pox in the person of the husband, who recovered. From these cases having passed unrecognized by several physicians, I deem that the existence of this rather rare form of the disease is not a well-established fact in the minds of all practitioners, and therefore think the subject worth presenting again by means of this second fatal case.

\*Archives of Dermatology, July, 1876, page 297.

This appears to be the more necessary because there is no good description of these peculiar features in the text-books on general medicine or dermatology.

Mrs. E., aged 39, a good-sized and previously healthy lady, five days previous to my seeing her, was seized with a chill, which was not very severe, followed by nausea and vomiting, with some fever. Two days after the chill she began to get flushed in the face, the flushes being of a purplish and rather livid hue, and on the third day some ecchymotic spots appeared on the neck and chest. During this period there was some pain in the back, but this was not severe, and the nausea and vomiting had yielded soon to bismuth. During these first few days there was no sign of a papular eruption, nor at any time was there an amount of any lesion which would be considered as distinctive of small-pox. Hemorrhages began from the mouth on the third day, and soon extended to other localities, persisting until death.

When I saw her, April 24, 1877, the face presented an evenly distributed, purplish, livid hue, with few if any blotches, but, scattered over the purple surface, a few minute papules could be discovered on close examination. The neck and chest were covered with a thickly set eruption of petechiæ, confluent in some places; on the abdomen, where a mustard-plaster had previously been placed, there was an evenly formed ecchymotic surface; the back was pretty well covered with petechiæ. On the thighs the hemorrhagic spots were separate and distinct, of an irregularly roundish shape; they were more thickly set upon the buttocks. The legs were more sparsely sprinkled with them, they reaching even on to the toes. The arms were affected in like manner, the eruption of hemorrhagic maculæ of various sizes and shapes extending on to the hands, and even to the fingers, mainly on their backs.

On many of the petechiæ very close inspection with a pocket lens of moderate power, showed minute pustules, although but a comparatively small number of the hemorrhagic spots exhibited them. On the roof of the mouth there were several fairly developed pustules with ruptured summits.

The eyes were intensely ecchymotic, the tissues of the right eye were raised up in a circular ring around the iris, which appeared as a great depression in the centre; the left eye was less affected than the right, but was the seat of considerable bloody effusion.

The mouth and nose were pouring forth blood, blood was passed by the bowels, there being also considerable pain through the abdomen, and the urine was seen to be loaded with blood in streaks and clots.

The pulse was 120, full and throbbing, temperature 105½; tongue dry and parched; the bowels had been previously moved by ten grains of blue-mass, and she was having loose, bloody stools.

She was conscious, answering questions clearly, and assisted somewhat in the examination, which was very brief, but she complained much of great general distress. She was bled to about twenty ounces, the blood flowing with some difficulty and being of a very dark color. Twenty-five minims of fluid extract of ergot were injected hypodermically into the arm, and this was directed to be repeated every two or three hours. Brandy was to be administered tolerably freely, and to be given by hypodermic injection if vomited.

The patient expressed herself as experiencing the very greatest relief from the bleeding; the pulse became more natural, and she slept. I have not received from the attending physician the promised details of the case after I left her, and only learned that she sank and died within twelve hours after my visit. The family were ordered to be vaccinated at once, but the

husband took the disease, as before stated, and was severely affected; I believe all the others escaped.

The interesting points attached to the case are: the peculiar variety of the disease, the small-pox poison manifesting itself almost entirely in the form of the hemorrhages, and the consequent difficulty of the diagnosis; the almost surely fatal nature of this variety of variola; and the necessity of a correct diagnosis for the sake of those around the patient.

In regard to the diagnosis, I need only say that the entire group of symptoms as detailed in this case can be presented by no other disease; purpura hemorrhagica, which it most resembles, would not have the initial chill, nor the fever and throbbing pulse of 120, nor the papules on some ecchymoses and the vesicles or pustules on the others. Black measles, or black scarlet fever, the hemorrhagic varieties of these diseases would also never give the pustular element, moreover would not be so rapid in progress or so violent in character; and would possess other features characteristic of each, as the catarrhal symptoms of measles and the throat disease of scarlatina.

As to the treatment, little if anything has ever availed; the cases are almost surely fatal, and that generally within from three to five days. It was my painful duty to tell the husband that his wife could hardly, by any possibility, live. The treatment followed was such as I should be inclined again to advise, except that it should be resorted to much earlier in the disease. The bleeding was indicated, inasmuch as the throbbing pulse was already seeking relief by hemorrhages from the mouth, nose, kidneys, and bowels, and by thus opening a vein an impression was made on the circulation, and the patient was certainly very much relieved. I should hope most from the hypodermic injection of ergot, which was immediately given; but the disease had progressed too far, and it was possibly not absorbed. In an earlier case I should expect something from it. Too much care can hardly be exercised in recognizing cases of this terrible form of small-pox, as, if undetected, they may give rise to very serious consequences, as in this and the other instance which I have previously reported.

## THE CAUSES OF PREMATURE MENTAL DECAY AND NERVOUS EXHAUSTION INDUCED BY INEBRIETY, AND THEIR TREATMENT.

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(Read before the meeting of the American Association for the Cure of Inebriates.)

INEBRIETY as a disease—I might say with propriety an insanity—will never, in common with the other insanities, die out until the Anglo-Saxon race succeeds in producing, what it does not now produce, a physique and a brain capable of meeting successfully the demands that our climate and civilization make upon it. To do this requires a bringing up of the tone of the physical condition of American women, so that the conformation of woman shall be what it should be for the best propagation of the species, and that she shall have, what she has not to-day, the ability to furnish a suitable supply of wholesome nutriment for her offspring, as is the case with German, English, Scotch and Irish women. To-day the vital temperament is deficient in American women, and the nervous temperament is too predominant and too active, so much



so, as to require an undue proportion of the nutrition of the body. Nothing is more certain than that the physical development of most of our American women differs very materially from the physiological standard upon which the true law of increase is based. The remedy for all this lies in your hands, gentlemen of this Association, in common with the rest of the profession, and it is to the subjects of diet, fresh air, sleep and tranquillity of life of the young of the present generation, and to the general training of the young in educational institutions, that we must look for the production of a better type of physical development and mental stamina. I think that the influence of physical culture, especially applied to women, and its influence on the body, cannot be overrated, and that by due attention to this we shall see our young women graduating with health, with good muscular development, and an abundance of vitality stored up for the trying duties of maternity, and with the greatest possible harmony of action between the physical and the mental organization, tending to good health, long life, and healthy progeny. Physiology points to the necessity among our American women for a better developed physical system, more evenly balanced in all its parts or organs, a greater harmony in the performance of all their functions, especially in reference to what may be termed the primary laws of nature, so that their children may not be weighed down in the struggle of existence with the curse of a defective organization, but be blest in the inheritance of a perfect anatomical and physiological structure in all parts and organs, with a resulting harmony in the performance of all their functions, with perfect mental and physical health and immunity from the host of nervous diseases that affect so large a proportion of our people. It may seem as if an undue amount of attention is spent in the consideration of this question, but having, by reason of my specialty, devoted much time in the study and investigation of hereditary disease, I am firmly impressed that, in order to eradicate inebriety and allied nervous diseases, and to check the increasing tendency to physical degeneracy among American people, we must aim at the extirpation of radical defects in physical organization. At present the average number of children to each American family is steadily decreasing with each generation, and the children that are born exhibit a want of vitality, a want of stamina in the constitution, and such a predominate tendency to physical degeneracy that threatens seriously, it seems to me, the perpetuity of our native stock. The pathology of the production of inebriety, in common with most other nervous diseases, consists, primarily, in an interference with the proper nutrition of the cerebral tissue of the fœtus, so that, even during embryonic life, the brain of the infant undergoes pathological changes which induce deficient moral power, mental weakness, and a predisposition to the acquisition of all forms of nervous disease, there being an ill-balanced and defective state of the whole central nervous system disposed to take on diseased action. These diseases would cease to exist if a true, healthy civilization prevailed; but inebriety, in common with other nervous diseases, owes its origin to an artificial type, from wrong habits, pernicious customs and fashions, and from an unnatural culture and refinement where the laws of health and life are altogether too much violated. These diseases have not been the growth of one generation, but of many, and by the laws of inheritance have become greatly increased and their effects intensified. To eradicate these evils, and to perpetuate the race as it should be, there must be sound and healthy stock, and not or-

ganizations impregnated from their very origin with the seeds of disease and premature decay.

We find in dipsomania the general symptoms of exhausted nervous power, viz.: general debility of the body, inability to walk even short distances without fatigue, general feeling of languor, unwillingness to make any active exertion, great tendency to sweat, more especially at night, but also induced during the day by the slightest exertion, and often an unsteady gait. I have found these patients exceedingly prone to neuralgia. The explanation of this is probably due to the fact that there exists in such cases a worn, irritable, hypersensitive condition of the sensory nerve-cells of the central sensory tract, which is the sole seat of true nervous sensibility. The central nervous system is affected beyond all doubt by excessive drinking, and the degeneration thus produced I regard as a powerful predisposer of neuralgia of the inveterate type. Aside from the direct influence impressed on the nerve-centres, I think that this irritable and hypersensitive condition of the central sensory tract is often induced by visceral irritative disease of the stomach, kidneys, or liver, so frequently existing in inebriates, which almost necessarily affects the sensory nerves which ramify in these organs, and from these diseased nerves a more or less steady stream of irritative and wearing nervous impressions is transmitted, practically without cessation, to certain parts of the sensory tract, to which the sensory nerves from any given part may go, and, as a result, sooner or later the central sensory nerve-cells are brought into that degree of nutritional disturbance which is the fundamental factor in neuralgia. The real seat of these severe neuralgias, from which so many dipsomaniacs suffer, is rarely, if ever, in the peripheral nerves of the affected region, but in the central nervous apparatus. The heart's action is weak, often irregular, accompanied by palpitation, and not unfrequently with symptoms of indigestion. A change has also come over the man's mind, so that the very *morale* of the mind is changed. At one moment he may be very joyous and excitable, and then he will become greatly depressed. He will be very friendly, and anon very hostile. He will be so obstinate that nothing can overcome his determination, and at other times you may lead him like a child. The heretofore ever-ready and resolute man manifests marked indecision of character, and in other cases there may be an utter inability to fix the mind on any one subject, or to follow up a train of thought consecutively. Any force to cause permanent intellectual activity must be a mental, not a physical, one. If the force be alcohol, which it often is, as it is becoming more and more the habit to resort to it for its temporary effects in this direction, the rate of interest paid for its use is frightful. Not alone is there a loss of tone in character, and blunting of moral perceptions, but intellectual discrimination is much impaired, and impairment of all the mental faculties is almost inevitable. The ideas are more spontaneous, less under the power of control, and any exertion requiring continuous mental effort soon becomes impossible. There can be no doubt that alteration of the brain is taking place *pari passu* with these alterations of character. It may be atrophy, or the circulation through the encephalon may be checked or impeded by ossification, or softening of the cerebral arteries, or some disease of the heart itself, or the neurine may be undergoing a change, particularly on its peripheral surface, as well as on the surface of its ventricles or cavities. The convolutions become paler, and the furrows shallower. The weight of the whole cerebrum and cerebellum is

lighter and less complex. Softening of a very delicate nature, so delicate as only to be detected post-mortem, by letting a little stream of water flow gently over the surface of the brain, may be taking place; or, what is very likely, and is often passed by unnoticed, because discernible only to a well-practised eye, which may not be present at the right moment for observing its attack, is a very slight fit of apoplexy and paralysis, so slight indeed that it occurs and passes away unnoticed and unperceived, and is recognized only in its after-consequences and permanent effects. From the date of such an occurrence, though loss of life does not ensue from it immediately, yet in its ultimate effects it is sooner or later fatal. The patient is an altered man, and never recovers himself. So delicate is the tracery of the nervous structure, that the damage of a single fibre, or set of fibres, destroys the unity of the whole. There are generally three things present that lead to these attacks of cerebral hemorrhage, and as these attacks play a very important part in the production of premature mental decay in inebriates, it is desirable to thoroughly understand them and estimate their importance. The three things alluded to are: hypertrophy of the left ventricle of the heart, chronic disease of the kidneys, and finally degenerated cerebral arteries. The hypertrophy of the heart is a simple hypertrophy of the left ventricle, the wall of the ventricle being thickened without any dilatation, although in exceptional instances dilatation may ensue. The blood, in inebriety, is more or less noxious to the tissues, since it contains an alcoholic foreigner, and its passage into the capillaries is undoubtedly resisted by contraction of the small arteries, the vessels most rich in muscular tissue. The muscular coats of these vessels, therefore, are hypertrophied in antagonism to the heart. Since the small arteries are hypertrophied throughout the body, the obstructions, though each is slight, are in their sum total so large that in order that the circulation may be carried on efficiently, hypertrophy of the heart must ensue. There may be doubtless degenerative changes in the small arteries, so that there may be increased bulk with altered structure. It should not be assumed, I think, as it often is, that all the processes in the arteries leading to cerebral hemorrhage and apoplexy are of a degenerative origin, as there can be no reasonable doubt that the presence of alcohol sets up a condition of sub-inflammatory irritation which plays a very important part in the production of cerebral hemorrhage. The sub-inflammatory irritation causes the arteries to lose much of their elasticity, and become permanently wider, longer, and more tortuous. This absence of elasticity of the larger arteries becomes, by the withdrawal of the aid to the circulation in equalizing the flow of the blood, an important factor in leading to rupture of the smaller arteries. When the brain wastes slowly, as it often does, the dilatation of the vessels, and the increase in the quantity of the cerebro-spinal fluid, favor rupture very decidedly. There can be no doubt that the occurrence of cerebral hemorrhage in inebriates, resulting from abnormal strains, would be much more frequent were it not for the provisions which nature has made for the protection of the brain from suddenly increased afflux. The turns of the carotid and vertebral arteries, the free anastomosis of the circle of Willis, and the small size of the arteries beyond that circle, before they enter the brain substance, all tend to protect the brain. The perivascular canals also exercise a protective influence over the vessels they surround, and in the corpus striatum, where cerebral hemorrhage is especially liable to occur, as its vessels are not capillary in size, and proceed

from the middle cerebral artery, which is almost the continuation of the internal carotid, we find the perivascular sheaths of very large size. When I say, then, that I consider one of the principal causes, if not *the* principal cause, of premature mental decay occurring in inebriates, to be the occurrence of cerebral hemorrhage, or apoplexy, resulting from degeneration caused by the poisonous effects of alcohol upon the tissues, I do not think I overstate the actual facts. We generally have associated in such cases hypertrophy of the left ventricle of the heart, as I have previously remarked, chronic disease of the kidneys, and degenerated arteries. The strong left ventricle and inelastic arteries combine to prevent the wave of blood sent to the arteries from being properly equalized, and consequently the smaller arteries of the brain, which are normally thinner than the arteries of other parts, and which are degenerated, receive the impulse from the heart's jerks, and being thus diseased and fragile—perhaps dilated and aneurismal—give way.

Before passing to the question of treatment I desire to briefly notice an interesting question, and one with which I propose to deal at length in the future. The question is that relating to the degree of moral or criminal responsibility which attaches to inebriates. Inebriety depends very frequently, as we well know, upon an abnormal organic development of the nervous system that has descended from generation to generation, gaining in intensity all the time. There must certainly be a modified responsibility when homicidal or suicidal acts are committed during periods of such abnormal cerebration. In such cases a criminal act may be committed in consequence of cerebro-mental disease without any apparent lesion of the perceptive and reasoning powers. In these cases also the mental disorder is of a sudden and transitory character, not preceded by any symptoms calculated to excite suspicion of insanity. It is a transitory mania, a sudden paroxysm, probably epileptiform in nature, in which convulsive activity is not reached except so far as the mind is concerned, without antecedent manifestations, the duration of the morbid state being short, and the cessation sudden. In these cases the criminal acts are generally monstrous, unpremeditated, motiveless, and entirely out of keeping with the previous character and habit of thought of the individual. Such attacks are transient in proportion to their violence. There is an instantaneous abeyance of reason and judgment, during which period the person is actuated by mad and ungovernable impulses. I would by no means wish to be understood as advancing the plea that inebriety as a simple habit should exempt or protect a man from the consequences of criminal acts committed while under the influence of alcohol: but if he has unhappily inherited an abnormal organic development of the nervous system, so that mental delusion, weakness, or disease deprived him of the power of choice, and if we can say, but for the presence of those morbid conditions the habit never would have been formed, we should then look upon his inebriety as due to mental disease, and hold him responsible accordingly. If we in each individual case study up its psychological history, we shall always be enabled to come to some definite conclusion. For instance, in a given case, if I can prove to you that an inebriate who has committed some criminal act during one of his paroxysms has had a paternal or a maternal ancestor in an insane asylum, I certainly present to you a strong reason for pausing before you denounce the act as the simple outgrowth of a vicious habit. Again, if a man has committed a criminal act during a paroxysm of



dipsomania which has appeared either in very early youth or in old age, after a long, virtuous, and temperate life, or after a sudden mental shock, or sunstroke, I at once negative to your minds the hypothesis of habitual drunkenness. A very interesting case from a medico-legal point of view occurred a short time since, in which the writer was consulted as an expert. A murder was committed by a man under the influence of a small quantity of stimulants, which stimulus evidently induced a state of temporary insanity, or epileptiform attack. The integrity of the brain had been affected by a previous sunstroke, and the man had just recovered from quite a serious illness. It is well known that after a sunstroke a small quantity of liquor acts very violently upon the nervous system, and it might, therefore, be argued that he was responsible for the voluntary act by which he submitted himself to the influence of the intoxicating liquors. But the facts of the case were that previous to this time he had been accustomed to drink far more than upon this occasion with impunity, and had never before been intoxicated. This man was, therefore, in a morbid state produced by his sunstroke, subject thereby to a tendency to insanity, liable to be excited by intoxication, of which morbid state he was ignorant, having had no reason from his past experience to believe that such results were likely to proceed from intoxication, and with no intention in his own mind to do more than take a very small quantity of stimulus. As you will see in this case it seemed the only proper way to hold this man responsible for consequences which an ordinary understanding could recognize as likely to follow from immediate acts. I gave it as my opinion that the murder, which I will presently describe, was committed during a transitory state of moral epilepsy, which was the result of a preceding sunstroke, the immediate exciting cause being an attack of illness, and the taking of a small quantity of alcoholic stimulus. This state of "moral epilepsy" is a morbid affection of the mind-centres, which destroys the healthy co-ordination of ideas, and occasions a spasmodic or convulsive mental action. The will cannot always restrain, however much it may strive to do so, a morbid idea which has reached a convulsive activity, although there may be all the while a clear consciousness of its morbid nature. The case just alluded to had complained of pains in the head and sleeplessness, which had displayed marked periodicity, and which had been accompanied with great irritability of temper, excited by trifles and seemingly unconnected with personal antipathies. As has been previously stated, the person alluded to had been suffering from quite a severe illness, and after taking a small quantity of alcoholic stimulus, went out to walk. He met a friend with whom he had been familiar for years, and a discussion arose as to the respective merits of certain politicians, when, the discussion becoming excited, the man drew a revolver and shot his friend. He then went, in a dazed and confused state, and sat for some hours upon a river dock, and subsequently went home, burst into tears, and informed his wife of the sad occurrence, and gave himself up at the police station. There was no simulation of insanity by pretending to be incoherent or by strange actions, and no attempt, either on the part of himself or wife, to pretend that the act was an insane offense. There was, however, a total blank in the prisoner's mind respecting the events immediately preceding the pistol shot, which shot seemed to have aroused his attention for the time, and he had no recollection of the fact that he sat on the dock for some time afterwards, as he was seen to do. Upon being consulted, as I

have stated, I gave it as my opinion that there had existed, for months previous to the occurrence, a profound moral or affective derangement, which from its marked periodicity was evidently epileptiform in character, and that the sudden homicidal outburst supplied the interpretation of the previously obscure attacks of recurrent derangement. There had evidently been induced by the sunstroke in this case an epileptiform neurosis, which had been manifesting itself for months, chiefly by irritability, suspicion, moroseness, and perversion of character, with periodic exacerbations of excitement, all foreign to the man previous to the attack of sunstroke. There are a great many cases among dipsomaniacs where, in an unconscious condition, persons can progress from odd or eccentric actions to deeds of violence, suicide, or murder, being unable to remember the circumstances afterwards, and, therefore, irresponsible for their actions. The question as to the degree of mental responsibility attaching to such cases is one of great interest to psychologists and also to jurists, and one to which it is hoped in the future much more attention may be directed than in the past.

*Treatment.*—In the treatment of nervous exhaustion and premature mental decay, we should primarily direct our attention to the direction of the mental habits. We should endeavor to provide, constantly, easy and pleasant occupation of the mind, avoiding, equally, lazy inaction or violent excitement. We have in these cases to deal with a worn, irritable condition of the nervous system—an unstable condition, as regards its nutrition, its solidity, and its perfection of structure, which makes our task no light matter. We must be very careful that we make our patients sleep, or we shall have a preponderance of waste over repair that will balk all our efforts. Our patients, by reason of the hereditary factor generally present, cannot without great danger to themselves, do or endure what other patients might safely do. It will be also necessary to supply the greatest amount of nutritive material to the brain and nervous system to repair the undoubtedly existing nutritive lesion. We must quiet all abnormal nervous excitability and keep our patients calm and tranquil. Attention should be paid to maintaining an even temperature of the body. Care should be paid to the condition of the excretory functions of the skin, kidneys, and bowels. If there is headache and drowsiness, such diuretics as the liq. ammoniæ acetat. with sp. nitric are indicated. Indian hemp has also proved itself in my hands a valuable adjunct in doses of  $\frac{1}{4}$  gr. of the extract as required. Free exposure, without fatigue, to the fresh air cannot too strongly be insisted upon. One of the most valuable of remedial agents is phosphorus, which I always prescribe to be administered in cod-liver oil in doses from  $\frac{1}{100}$  to  $\frac{1}{2}$  of a grain after meals. The cod-liver oil is one of the best nutritive remedies, as fat must be applied to the nutrition of the nervous system if this is to be maintained in its organic integrity. The general effects of phosphorus are those of a stimulant, but it possesses a special power over the exhausted nervous system. It is, perhaps, evanescent in its effects, but is never followed by a stage of depression which is noticeable. It should never be ordered upon an empty stomach. Quinine and strychnine are also very valuable as nerve tonics, and I have obtained excellent results from the use of a pill introduced to the profession by Dr. Wm. A. Hammond, composed of phosphide of zinc and ext. nux vomica. This I regard a specially valuable combination. When there is persistent insomnia, I am accustomed to rely on the use of prolonged warm baths given at bed

time, conjoined, when necessary, with the use of the monobromide of camphor, in doses of from four to six grains. This is an admirable cerebral sedative.

I come finally to speak of the remedial agent which, in my opinion, far surpasses all others in its permanent effects, and which is comparatively little used. I refer to the judicious use of the constant and induced currents of electricity. The essential difference in the action exerted upon the nervous system by the use of electricity, and that produced by drugs very often prescribed, is as follows: Many of the remedies commonly employed in the treatment of nervous diseases and in dipsomania for the purpose of restoring lost nerve force are *nerve stimulants* and not nerve tonics, in the proper sense of the term.

Electricity is a remedial agent which furnishes us with the means of modifying the nutritive condition of parts deeply situated, and of modifying the circulation to a greater extent, I think, than by any known agent. By the judicious employment of the constant and induced currents, we have it in our power to hasten the processes of nerve growth and nerve repair, and thereby indirectly hasten the acquisition of nerve power. The use of electricity does not, I think, act by contributing anything directly to the growth or repair of nerve tissue. Its action, it would seem most probable, is to stimulate and quicken these processes on which the material and functional integrity of the nervous system depends. The action of electricity is always followed, in my practice, by an increase of strength and nerve force, and the results gained are gradual and permanent, while the use of nerve stimulants has always seemed to me to primarily excite the nerve activities proper, and *not* the nutritive processes upon which the acquisition of power depends. The deceptive results obtained from the use of nerve stimulants depends upon the excitation of nerve activities and the resultant expenditure of nerve power, which is followed by a period of exhaustion varying in degree and duration. The careful and judicious employment of electricity has always led in my hands to an increase of nervous energy, while the employment of nerve stimulants has appeared to me to lead, in many instances, ultimately to a waste and diminution of nervous energy. In cases of dipsomania we have, as I have already remarked, abnormal nervous excitability, conjoined with cerebral exhaustion, and the two indications which are urgent are, primarily, for increased rapidity and effectiveness as regards the process of nerve nutrition, and secondarily, to secure freedom from excitement and diminution of nerve activity, and thereby to check the waste of nerve structure and of power. These indications we can fulfil by the judicious use of electricity and nerve tonics more certainly than by any other means, there being no other such combined sedative, restorative, and refreshant to the central nervous system, and we can thus successfully meet all the indications in cases of cerebral exhaustion and threatened mental disease, except that of affording direct nutriment to the brain; which, as I before stated, I endeavor to obtain by rest, cod-liver oil, phosphorus, etc. The use of electricity seems to supply to the system, in cases of inebriety, the stimulus which has been withdrawn; as my patients have repeatedly told me that, while under treatment, they experienced little if any of the terrible feelings produced by its withdrawal under ordinary circumstances. I have seen this so often that I advance it as a scientific fact, and not as an untested theory. I have had cases of years, standing who have assured me that the application of the electricity has been of more service to them than anything they had previously tried. I have generally

employed both currents, the constant and the induced, using the negative electrode at the lower end of the spine, or at the pit of the stomach, while I applied the positive pole to the head, cervical sympathetic, the cilio-spinal centre, or region over and on either side of the seventh cervical vertebra, and up and down the spine, making a séance of perhaps fifteen or twenty minutes daily, and in some cases twice a day. I have obtained such excellent results from its use, that I hope other gentlemen presiding over similar institutions to mine may be induced by my success to give this very important remedy an extended trial, after which I feel sure that they will never willingly relinquish so effective an agent.

## Reports of Hospitals.

### PENNSYLVANIA HOSPITAL, PHILADELPHIA.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

CLINIC OF J. M. DA COSTA, M.D.

I wish to call your attention to-day to three very interesting cases of pulmonary disease.

#### I. CATARRHIAL PNEUMONIA AS A CAUSE OF PHTHISIS. II. HEREDITARY PHTHISIS.

CASE I.—P. G., aged 31, a sailor. His father died of dysentery, and his mother of some brain disease. The patient had always been an intemperate man, and, for the last six or eight years or more, has been leading the life of a vagrant. On one of his "outings," some six years ago, he passed the night asleep in the grass in Central Park, in New York City. As a result of this imprudence he caught a severe cold, and was confined to bed for ten days or two weeks, with fever and cough. His present disease has had evidently, therefore, an acute beginning. He has never been entirely free from cough during the past six years. One year ago the pulmonary symptoms became alarming. He had an exhausting hemorrhage, followed by a chronic and copious mucous expectoration containing every now and then some blood-streaks. The man did not lose flesh at first, but of late he has gone down considerably in flesh and strength. There has been an occasional night-sweat of late. When admitted to the hospital he complained of pain in the left side. His temperature was 102°. Physical examination revealed crackling râles and prolonged expiration throughout the whole right lung, except at the apex, where there were to be distinguished the signs of a small cavity. At the apex of the left lung there was found slight harshness of breathing, and some few crackling râles.

I will make an examination now, and see how matters stand to-day. I may first remark, however, that the patient's temperature has recently gone down to normal from 103°, what it was when he was admitted. Dulness upon percussion is very marked over the whole of the right chest. Auscultation shows coarse, crackling râles, and hollow breathing at both base and apex anteriorly. Posteriorly, I can distinguish harsh respiration and some crackling râles at the lower part of the chest. There is harsh breathing at the left apex, both anteriorly and posteriorly. The physical signs have not varied since the man entered the hospital. This much we can say, therefore, that the physical signs have been stationary, and that the temperature



has been steadily declining, until lately it has reached about the normal. Taken together, these two facts lead me to consider the prognosis much more favorable than when the patient first came into our hands. (The man's nails are plainly clubbed, and he has the reddish blue so-called zinziber line upon his groins. There is not the least doubt, therefore, that this case is one of phthisis.)

How has the patient been treated? We have given him inhalations of carbolic acid, cod-liver oil, iodide of potassium, and a liberal diet. Under this *régime*, as you see, the man has gained several pounds in weight, his temperature has been reduced, and the physical signs rendered stationary.

What was the origin of this case? In looking back over the past six years, we see that the malady had an acute beginning; that the starting-point was an exposure, followed by a severe attack of fever and cough, as he calls it. This was, no doubt, an attack of acute pneumonia of the right lung. Up to the time of attack he had always been in good health. Since that date his health has gradually failed. The right lung has become chronically indurated, tubercles have formed in it, and part of the tissue has at last given way, leaving a cavity.

The long duration of this case is very significant when taken into consideration with the prognosis. If he had taken good care of himself at almost any period during the past six years, the tubercular disease might have been altogether prevented, the pneumonic disease in the right lung arrested, and the left lung saved altogether. Even at this late date you see how much good a well-directed treatment has wrought.

You will ask me, perhaps, when the tubercular disease began. I think most probably that it first made its appearance about the time that the hemorrhage occurred, and the man began to notice that he was losing flesh rapidly.

You may be surprised that the disease has been checked at so late a stage in its course, but let me assure you that we are constantly meeting with just such improvements as this one. As soon as I felt sure that the temperature had become stationary at the normal, or a little above, at that very moment was I confident that the disease was stayed, at least temporarily, perhaps permanently.

CASE II.—H. M., aged 30. Family record good. Caught a bad cold while playing cricket last summer. Has had a cough ever since, but no hæmoptysis. There has been some mucous expectoration in the mornings, and complaint has been made from time to time of pains in the left shoulder-blade. The patient has only been in the hospital for a few days. His temperature has been as high as  $104^{\circ}$ , and has shown a very marked morning and evening variation, running from  $103\frac{1}{2}^{\circ}$  down to  $99^{\circ}$ , and then up again to  $102\frac{1}{2}^{\circ}$ . The man's respirations are somewhat hurried, there being from 26 to 28 respirations made in the course of a minute. Percussion shows that the resonance is impaired over the whole of the right lung, both anteriorly and posteriorly. Upon *respiratory percussion* (this is a term employed by Professor Da Costa to signify percussion of the lungs after a full breath has been taken and held), this dulness is rendered still more evident. On the left side the resonance is clear. Throughout the left lung the respiration is harsh and the inspiration feeble. Scattered through the lung we find a number of fine râles. Before admittance to the hospital the man lost much flesh, but there has not been any loss lately.

Case II. is in the same condition that Case I. was in

some five years ago. Here also there has been a sub-acute attack of catarrhal pneumonia followed by some consolidation of lung-tissue. This form of the disease is that known as chronic pneumonia, and leads to a more permanent consolidation and hardening of lung-tissue. The case has developed considerable irritative fever. The man is just on the threshold of pneumonic phthisis. Unless the disease is checked, phthisis, I say, will almost certainly supervene. As you see by what has been said above, we have to deal with a high temperature, and yet I have every hope of restoring the man to health.

Let me say a word to you just here concerning the range of temperature in these cases of catarrhal pneumonia, for in cases such as these the range of temperature is a very accurate means of diagnosis. You noticed what an extraordinary difference was found to exist between the morning and evening temperature, running from  $103\frac{1}{2}^{\circ}$  down to  $99^{\circ}$ , and then up again to  $102\frac{1}{2}^{\circ}$ . Now, I want to impress upon you the fact that this excessive variation in temperature is peculiar to cases of chronic catarrhal pneumonia. Upon more than one occasion I have been called in consultation to see supposed cases of intermittent fever, which upon careful and thoughtful examination were found to be nothing else than instances of the above affection, viz.: chronic catarrhal pneumonia. The attending physician had been misled by this extraordinary daily temperature range.

Now, as regards the treatment of this man. The first indication with such a temperature chart is, of course, to lessen the fever. For this purpose the two best remedies are quinia and digitalis. Salicylic acid and carbolic acid have been tried with the same object in view, but they have failed. The quinia and digitalis should be administered either separately or in combination, so long as the fever lasts. This man is taking them together, one grain of digitalis and two grains of quinia thrice daily. When cough is among the symptoms, opium should be given along with the above. If the dose of digitalis proves too large, the amount should, of course, be reduced. As there are occasional night-sweats here, the man is taking atropia (see treatment for next case—hereditary phthisis). The atropia must be stopped so soon as the night-sweats disappear, which usually will be in the course of four or five days. To promote absorption and produce counter-irritation, blisters are applied to the chest, and the following prescription administered:

R. Potassii iodidi. .... gr. v.  
Ammonium muriatis. .... gr. x.  
Mist. glycyrrhizæ comp. .... f.  $\frac{3}{4}$  ss. ( $\frac{1}{2}$ ).  
M. S. Four times daily.

I have brought these cases before you to illustrate one of the means of origin of phthisis, and to impress upon your minds some important points of diagnosis and practice in such cases.

#### HEREDITARY PHTHISIS.

The patient is a young man, 23 years of age, with a wretched family history—his mother having died from phthisis. The man himself states that he has always been in good health until about eighteen months ago, when, without any warning whatever, he had a severe and copious hemorrhage from the lungs. Since that time the hemorrhages have recurred frequently, so that he has had thus far twenty-two hemorrhages in all. He had no cough before the first hemorrhage, and thought himself in perfect health: since the hemorrhage there has been copious expectoration, night-sweats, and progressive asthenia. In

short, this man, coming of a tubercular stock, has a violent hemorrhage, followed in time by all the evidences of tubercular disease. Upon examination I find the signs of the existence of the cavity in the upper part of the right lung. When admitted to the hospital the man's temperature was as high as 103°. Lately it has been reduced below 100°. This case shows that, even when far advanced, phthisis may show partial arrest, if not decided improvement, provided there be no febrile irritation.

The disease in the present instance evidently took its origin in the acute hemorrhage; we find no history of catarrhal pneumonia here. This form of the disease was formerly styled *phthisis ab hæmoptoe*—phthisis from hemorrhage. Modern physicians have been accustomed to deny altogether the possibility of such an origin. They say that in all such cases there are in reality latent tubercles; that if we examine closely enough we always discover a family history of tubercular disease; that the hemorrhage is, therefore, only a local expression of a general diathesis. Within the past few years, however, the old theory has been revived. According to the views of Niemeyer, the infusion of blood into the lung may be followed by pneumonic infiltration, so bringing on tubercular disease. You will perhaps ask me where I stand in the matter. I will grant the possibility of a case originating in hemorrhage, but I maintain that in the vast majority of cases there will be found to have been previous latent disease. This man's mother died of phthisis, so that, although he considered himself entirely well at the time of the hemorrhage, his lungs must have already become the seat of tubercles.

As regards treatment, the man has been put upon quinia, cod liver oil, and a nourishing diet. No inhalations have been tried in this case. The man has been in the hospital for four weeks, and during that short space of time he has gained *nine pounds*, the fever has markedly declined, and the physical signs have become stationary.

I have treated the night-sweats very successfully in this and other cases with granules of atropia— $\frac{1}{60}$  to  $\frac{1}{30}$  of a grain every night before retiring. This atropia treatment was first started here, and it has been very generally adopted elsewhere, as the best means of checking colliquative sweats, both in phthisis and in other affections; after taking from  $\frac{1}{60}$  to  $\frac{1}{30}$  of a grain of atropia every night for four or five nights the sweating is usually entirely checked. It has been objected to this atropia treatment that it produces great dryness of the throat. I have endeavored to counteract this effect by the use of strong lemon-juice, lemonade, gum-water, or slippery elm conjointly with the atropia. Quite recently I have obtained the very best results by means of jaborandi combined with the atropia. The doses of jaborandi must be exceedingly small. I have not yet made trial of this combination in a sufficient number of cases to enable me to make an authoritative statement. All I can say is that I have been able to produce entire toleration of the atropia in every case in which the jaborandi was combined with it. The atropia checks the great drain of the sweats upon the system, and so gives the other remedies a chance to act.

**FATAL FIRE IN TIENTSIN.**—Advices from Shanghai to February 3d state that a great conflagration had occurred shortly before in Tientsin, in which the Asylum for Women and Children was destroyed. It was said that over 2,000 lives had been lost in the fire.

## Progress of Medical Science.

**LITHOTRITY.**—Three to five minutes is the limit usually prescribed in the operation of lithotritry, but Prof. Bigelow, of Harvard, reports eight cases in which the time varied from three-quarters of an hour to three hours and three-quarters. The danger to the bladder and urethra, Prof. Bigelow believes, is overestimated, and he is convinced that it is advisable to protract an operation indefinitely, if the stone can be thus entirely removed. To facilitate the removal of the fragments, he employs an evacuating catheter of his own device, those now in use being worse than useless. This instrument is of full size, either straight or slightly curved towards the end, and has one opening of large size and situated at the side of the extremity; a rubber ball is attached to it by a length of rubber pipe, thus enabling us to syphon off the contents of the bladder. When the instrument is introduced it is directed against the floor of the bladder, forming a depression, care being taken to turn the eye of the catheter down. Water is now injected from the bulb; in a few minutes the crushed and pulverized fragments gravitate into the depression about the beak of the instrument, the bulb is lowered, and the contents of the bladder syphoned off. The great object is to sufficiently pulverize the stone and effectually evacuate the fragments, and it is for this that the lengthened sitting is required. Of the eight cases cited one died, but the results in the other seven were so favorable, that it is to be hoped this plan may be tested further. None but phosphatic stones were operated upon.—*American Journal of Medical Sciences*, January, 1878.

**DUBOISIA MYOPOROIDES.**—This is an indigenous tall shrub, growing plentifully in the forests of Eastern Australia, and supposed to belong to the order scrophulariaceæ, though Prof. Oliver, of Kew, refers it to solanaceæ. Dr. G. Fortescue, of Sydney, sent to Mr. Tweedy a small quantity of the extract of this shrub, calling attention to its powerful and rapid action as a pupil-dilator and paralyzer of the accommodation. The drug was experimented with by Dr. Sidney Ringer and Mr. Tweedy: the former found that when applied topically, or administered internally, duboisia dilates the pupil. Given internally, it also greatly dries the mouth, quickens the pulse, causes some muscular weakness, drowsiness, and headache—the same symptoms that follow atropia. It also checks perspiration, controlling even the effect of jaborandi. It antidotes the action of muscarin on the frog's heart. Mr. Tweedy found that, applied locally, duboisia is more prompt and energetic than atropia. Applied undiluted, it causes severe smarting and profuse lachrymation, but when diluted with twenty parts of water these effects are avoided and the dilatation is more rapid and complete. Having satisfied himself that the drug was not likely to prove harmful, he resolved to employ it in all cases where atropine was indicated, and has consequently used it largely in injuries and diseases of the cornea, in iritis, in spasm of accommodation, and whenever it has been necessary to paralyze the accommodation. Its action has in all instances been beneficial, and in some cases, he has been tempted to believe, superior to that of atropia.—*The Lancet*, March 2, 1878.

**HOTEL DIEU, PARIS.**—Two new wards have been opened, each containing twenty-four beds.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## INSANE ASYLUM MANAGEMENT IN THE STATE OF NEW YORK.

OUR recent criticisms upon the financial management of the Insane Asylum at Utica have given rise to considerable comment, not only in professional circles, but among the laity. The facts which we presented at the time were matters of record, and were analyzed with a care which their importance seemed to demand. The conclusion seemed irresistible that the management was extravagant in the extreme—in fact, that the Utica Asylum, during the past eight years, had cost the State of New York over six hundred thousand dollars in excess of what might have been expected, comparing it with the expenditures of other asylums. This was a legitimate inference from the stubborn logic of figures presented in the different official reports of the asylums under consideration. We were free to say that there was a reasonable explanation for the apparent discrepancy, and that the high standing of the Medical Superintendent of the institution was in itself an implied guarantee that the standpoint which we were forced to take was untenable. Our prejudice was so strong in favor of the management of the asylum, that it was a matter of some surprise to us that there should appear to be so many grounds for complaint. At all events, we were satisfied to leave the question in doubt, pending some reply from Dr. Gray.

Notwithstanding nearly three months have elapsed since the criticisms were made, we are still hopeful that at no distant day the explanations will be forthcoming, and will disprove many, if not all, the charges of mismanagement. Possibly, one of the reasons for delay is that the subject has, at the instance of the Medico-Legal Society, become one of legislative inquiry, and at the conclusion of the latter the necessary facts may be made public.

Whatever may be the reason for this unseemingly procrastination, it is in the interest of Dr. Gray that the investigation be thorough, above board, and as speedy as

circumstances will admit. It is a poor excuse to urge against any such investigation, and in the face of the facts and figures before the public, that personal malice against the Superintendent is at the bottom of it. If the latter is the case, the more effectually can an impartial examination destroy its influences. Aside from the charge of personal malice in this inquiry, and the delay in denying the significance of the facts presented, it is extremely unfortunate that the friends of Dr. Gray should have laid themselves open to the suspicion of attempting to dodge the issue. This is indeed the most surprising feature of the whole affair. The very necessity for such a thing was doubted from the first, and should least of all be made apparent at a time when the profession is anxious to hear from Dr. Gray himself. We have before us a report upon the condition of the Utica Asylum from the State Board of Charities, which on its face is very creditable to the institution and its management. Certain charges made by Dr. Tourtellot are reported to have been formally withdrawn, and the committee state that "the whole investigation tended to increase their confidence in the administration of the institution, both medical and financial." This is well enough, and is what would have been expected, in fact would have settled the question as far as the committee was concerned, except for the very damaging statement in another part of its report, to wit: "They did not go into the examination of the accounts, as that would have been a duty entirely beyond their strength and time." In our charity for the committee we are willing to charge this to ordinary stupidity, but to others it might suggest the possibility of trying to prove what with them was obviously impossible. In the absence of any statement to the contrary, we are free to believe that this report is published in connection with the present discussion without the approval of Dr. Gray or of his immediate advisers.

## THE NEW SCHOOL BILL.

THE friends of school hygiene have reason to be encouraged by the passage of the bill limiting the ages of attendance upon public schools. It will be remembered that last year an effort was made to accomplish such a result, but was, for reasons not necessary to recapitulate, unsuccessful. During the present session a healthier sentiment seems to prevail among the members regarding sanitary matters, and there is a disposition to anticipate the wishes of the public regarding them, rather than to oppose them, as heretofore. It is perhaps due to this fact that the action has been a trifle precipitate, and has consequently fallen short of the intention of the original movers in the reform. By this new law the minimum age of attendance is fixed at five years. Although this is a great improvement over the provision in the old law, when this age was fixed at four years, it is still sus-

ceptible of another change for the better by increasing the age to six years. This is what was originally asked for, and we are assured that it was only by the merest oversight that it was not obtained. Still, we must be content, for the present, with what we have, and take courage for the future. By this slight modification in the old bill fully eight thousand infants will be relieved of school attendance, and not only have the advantages of being nursed at home, but of giving room for many older ones who have heretofore been crowded out. If the six-year provision had been incorporated in the present bill, fully eight thousand more infants would have escaped the unsanitary abominations of the cellar class-rooms. In the case of the latter children some changes can be made in their hours of attendance which may mitigate many of the evils under which they are at present suffering. If they cannot be relieved from school attendance altogether, their time of attendance can be much lessened. The law requires two sessions daily, but there is no special provision for the length of the second. The Board of Education exercises its discretion in this matter by allowing, on special occasions, two sessions to be counted, when the schools are dismissed immediately after the reassembling in the afternoon. If this were made the rule with the children of six and even seven years of age, we should make as near an approach to a rational system of school hygiene as the present law would allow. We see no reason why the Board of Education cannot make an effort in the direction of such a reform, and repeat the gratifying experiences of 1871, when, at the suggestion of the Medical Superintendent, this plan was put in practical operation. But in reality this change needs no argument to prove its utility.

**THE EPIDEMIC OF TYPHUS AND TYPHOID**, which is raging in the Caucasus, and decimating both the inhabitants and the Russian troops, began originally in some barrack-hospitals. An idea of the violence with which the epidemic began, may be gathered from the fact that almost all the physicians, assistants, and Sisters of Mercy, in these provisional hospitals were attacked and succumbed to these dread fevers. From the barracks the disease spread rapidly throughout the Caucasus and the conquered territory in Armenia. In the latter, it rages with especial violence in Kars and Hassan-Kale.

**EPIDEMIC OF TYPHOID IN WITTENBERG.**—During the last two months of 1877, a violent epidemic of abdominal typhus raged among the troops in garrison at Wittenberg. The fact that the disease attacked almost exclusively the patients in the garrison-hospital led to an investigation of the water supply of the hospital. Examination of the water, which was taken from a well in the court of the hospital, showed that it contained a very large percentage of ammoniacal constituents. This well was at once closed and another opened in a more favorable location. This prompt action was immediately followed by a diminution in the number of typhoid cases, and the epidemic may now be regarded as entirely over.

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, April 4, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### REPORT OF A CASE OF FALLOPIAN PREGNANCY, WITH SPECIMEN.

DR. LAURENCE JOHNSON reported a case of Fallopian pregnancy occurring in a woman *et. twenty-nine years*, married, and the mother of two children aged respectively four and a half and two and a half years. She had always been healthy. Her last menstruation commenced on the 11th of February, 1878, and continued the usual length of time—three or four days. There was no evidence of pregnancy except the non-appearance of the menses on March 11th. On March 23d, at about noon, she suddenly began to suffer from pain referable to the pelvic region, became faint, and was put to bed. Small quantities of brandy were given at intervals, and she partially regained her strength, but in the evening there was a return of the faintness. She vomited once or twice, and had an evacuation from the bowels. The doctor saw her for the first time soon after the attack of fainting in the evening; found her very pale, with a feeble pulse, 140, but there was no discharge of blood from the vagina.

*March 24th.*—Patient appeared somewhat brighter; pulse somewhat stronger, but rapid. Urination without pain; abdomen somewhat tympanitic; tenderness all around the uterus, but especially upon the right side. Pain was not a prominent symptom at any time during the entire history of the case, although at no time was she markedly under the influence of narcotics.

*March 25th.*—Patient sank rapidly, and was thought to be dying. She rallied, however, so that on March 26th she was comparatively bright. On the night of the 26th she sank and died, *four days* from her first attack of faintness.

*Autopsy.* twenty-four hours after death.—Pelvic cavity filled with blood. Ruptured cyst in the right Fallopian tube, close to the uterus, and probably not larger than a hickory-nut. Right ovary contained a recent corpus luteum. Uterine decidua very apparent. Little or no evidence of peritonitis.

Dr. Johnson raised the following important question: *Would not an operation, with the view of securing blood-vessels, have been feasible and justifiable immediately after the occurrence of the first hemorrhage on the 23d of March?*

#### METHOD OF TREATMENT SUGGESTED BY DR. EMMET.

DR. T. ADDIS EMMET, in the light of a case reported by Dr. McBurney, and which was seen in consultation by Dr. Thomas and himself, believed it to be a feasible operation, as soon as the Fallopian pregnancy was recognized, to first dilate the uterus, then dilate the tube, and in that manner remove the fœtus. Dilatation of the uterus took place when only a moderate quantity of fluid was enclosed in its cavity, and at the same time the fluid backed into the Fallopian tubes. He therefore was perfectly satisfied that, with proper instruments, the uterus could be safely dilated, and also the Fallopian tube, and, as the cyst was usually near the body of the uterus, its contents could readily escape into the cavity of the uterus when such dilatation was effected. Dr. Emmet then exhibited an



India-rubber cot, such as he had been in the habit of using during the last ten years for the purpose of dilating the uterus. The dilator was manufactured by Shepard & Dudley, and consisted of an India-rubber cot containing a tube into which a sound could be introduced, so that it could be carried to the fundus of the uterus; an additional fixture permitted the attachment of a Davidson syringe, by means of which the cot could be distended to any degree required. When the uterus had been dilated, a curved sound could be used, and the cot introduced into the Fallopian tube, and dilatation produced as in the former instance.

#### FEASIBILITY OF A SURGICAL OPERATION.

Dr. Emmet was of the opinion that as soon as rupture of the cyst occurred it was a proper operation to immediately open the abdomen and secure the bleeding vessels; for, in comparison with such operations as ovariectomy, opening the abdomen for that purpose was a simple affair.

Dr. Post referred to a case reported to the International Medical Congress by Dr. —, of Georgia, in which laparotomy was performed for that purpose, and with good results.

Dr. SELL approved of the operation.

#### SYMPTOMS OF NERVOUS EXHAUSTION (*Neurasthenia*).

DR. GEORGE M. BEARD, in reading a paper upon the above subject, remarked that, although the condition of nervous exhaustion was sufficiently common to fall under the almost daily observation of every large practitioner, yet many of its symptoms were but ill-understood, and were either unnoticed or confounded with the symptoms of other and quite different disorders. Nervous exhaustion was regarded as a disease of itself, and one which had an array of symptoms peculiar to itself. Some of the symptoms were somewhat familiar to all medical men everywhere; others were familiar only to those who gave their time chiefly to the nervous system; and others still were then described for the first time. Some of the symptoms were of such a positive character, were so frequent as well as so peculiar, that they gave names to diseases, and for convenience sake were spoken of as diseases, although they all were but the manifestation of the nervous exhaustion, or neurasthenia. The following symptoms were mentioned:

#### TENDERNESS OF THE SCALP.

Tenderness of the scalp was a phenomenon of cerebral irritation, and was to the head what spinal irritation was to the spine. The tenderness might be confined to the vertex, might extend over the entire scalp, or might be limited to certain parts of the forehead. Like spinal tenderness, it was superficial and peripheral, and was not constant, but came and went, according to the exciting cause.

#### TENDERNESS OF THE SPINE AND OF THE WHOLE BODY.

When the spine was so tender as to become an important and permanent affliction and to overshadow other symptoms of the neurasthenic state, it was called spinal irritation, but strictly it was a symptom like cerebral irritation, and not properly a disease as such, although as a matter of convenience there could be no harm practically in describing it as a disease. The following points were regarded as noteworthy: 1. it occurred with great frequency among the higher classes, especially among women; 2. General and local hyperesthesia, appearing and disappearing under any

subjective or objective exciting causes; 3. It was transient in character.

#### TICKLISHNESS.

Nearly all persons were susceptible to the form of irritation called tickling, but in nervous exhaustion such susceptibility might become a severe annoyance.

#### DESIRE FOR STIMULANTS AND NARCOTICS.

When the nervous system, from any cause, lost much of its nervous force, so that it could not stand upright with ease and comfort, it leaned upon the nearest and most convenient artificial support. Whatever was capable of temporarily propping up the enfeebled frame, anything that gave rise to sedation and oblivion, as chloroform, chloral, opium, or alcohol, might be resorted to at first as an incident, and finally as a habit. Frequently an inherited tendency to inebriety was for years utterly latent, and did not break out until affliction, or some form of worry, or overwork, or disease, robbed the brain of its nerve-force. A large number of cases of that character had been reported by Dr. Crothers, of Hartford, Conn.

#### MENTAL DEPRESSION, WITH GENERAL TIMIDITY.

In disease as in health, fear was one of the symptoms of weakness. The nervously exhausted man was always physically insolvent and unequal to efforts that required much vital expenditure. Senseless timidity was one of the diagnostic features of that form of nervous exhaustion known as sexual exhaustion.

#### MORBID FEAR OF SPECIAL KINDS (*Agoraphobia*).

Fear of leaving home, of going out of the house, of going anywhere alone, etc. It was a ludicrous and absurd symptom, but it might occur in persons of intelligence, ability, and good sense.

It was analogous, in some respects, to the utter helplessness that some experienced when standing on an elevation; the will was put to rout completely, and could not rally at the call of reason. In some instances, though not in all, the strange symptom seemed to be traceable directly to sexual excess of some kind.

#### SICK HEADACHE AND VARIOUS FORMS OF HEAD PAIN.

Sick headache was regarded as both a symptom and a safety-valve. If we must be nervous, an occasional attack of sick headache, if it was not too severe, was an excellent way for such nervousness to manifest itself, and, no doubt, saved the person from other and worse affections.

#### PAIN AND HEAVINESS IN THE BACK OF THE HEAD, AND ON THE VERTEX AND THROUGH THE WHOLE HEAD.

was a common attendant upon the neurasthenic state, especially when the brain was congested. It might appear, however, when there was no evidence whatever of an excess of blood in the brain. For a number of years Dr. Beard had contended that circulation was a result of innervation; a brain or spinal cord impoverished of nerve-force was unable to maintain the balance of the ebb and flow of the arteries and the veins; consequently, anæmias and congestions arose that might be transient, or more or less permanent. But the disease was not the anæmia nor the hyperæmia (although both anæmia and hyperæmia, when they occurred, might and did induce certain symptoms peculiar to themselves), but the neurasthenia—the nervous exhaustion—the decline in the quantity and quality of nerve-force that presided over the circulation—al-

though it could not, like the blood, be weighed, measured, analyzed, or studied under the microscope.

#### DISTURBANCES OF THE NERVES AND ORGANS OF SPECIAL SENSE.

Nervous exhaustion produced temporary dilatation or contraction of the pupils; gave rise to the irritable eye, which was sometimes exceedingly painful and obstinate; and yet no lesion could be detected by any of the tests of modern ophthalmology.

This form of asthenopia, under various names, was coming into recognition among ophthalmologists. The eyes were painful and tender on pressure, and reading or writing or sewing was sometimes accomplished only with great pain. An attack of that kind might last half an hour, or three hours, or three months, and it might come and go suddenly. This malady, although most common among women, was found in both sexes.

#### SUBJECTIVE ODORS OF VARIOUS KINDS, AS OF OZONE OR PHOSPHORUS; ALSO ABNORMAL SUBJECTIVE TASTES, AS BITTER OR SOUR,

were likewise fleeting symptoms of cerebral exhaustion.

#### PARTIAL FAILURE IN MEMORY—SEMINAL EMISSIONS IN MARRIED MEN—LOCALIZED PERIPHERAL NUMBNESS AND HYPERÆSTHESIA—CRAWLING OR CREEPING, AS OF INSECTS JUST BENEATH THE SKIN; A SENSATION AS THOUGH A PIN OR MANY PINS WERE JUST TOUCHED TO THE SKIN; TENDENCY FOR THE LEGS AND ARMS TO GO TO SLEEP UNDER FAIR SLIGHTER PRESSURE THAN IN THE NORMAL STATE OF HEALTH,

were regarded as special symptoms of nervous exhaustion.

#### GENERAL AND LOCAL CHILLS AND FLASHES OF HEAT.

A case was mentioned in which the knees of the patient were literally as cold as ice.

#### LOCAL SPASMS OF MUSCLES.

What were known as fibrillary contractions, sometimes seen in cases of progressive muscular atrophy, were also noticed in the various shades of nervous exhaustion.

The stomach in nervous dyspepsia might be the seat of similar spasms, which might follow any excitement or emotion, as of fear or responsibility. A sensation like that of a reverse aura seemed to go down to the pit of the stomach from the nerve-centres, and excited spasms apparently of the muscles of the stomach itself.

#### GENERAL AND LOCAL ITCHING.

In certain nervous states the itching became an element of positive distress.

#### ABNORMALITIES OF THE SECRETIONS.

In nervous exhaustion the *eyes* became moistened more readily than in health, and under a very slight emotion either of pleasure or of pain.

The *sebaceous glands* in nervous debility might refuse to do their duty, and the hair and the beard become dry and stiff. The hair also fell off or became gray in patches. Dryness of the skin, as well as excessive or morbid perspiration in the axillæ, or on the hands or feet, or other parts of the body. The *spermatie secretion* might also become suppressed. Obstinate constipation, in consequence of suppressed intestinal secretion.

#### TENDERNESS OF THE TEETH AND GUMS—VAGUE PAINS AND FLYING NEURALGIAS—FLUSHING AND FIDGETINESS.

The latter was sometimes unspeakably distressing, although it cannot be defined.

#### TREMULOUS AND VARIABLE PULSE, AND OCCASIONALLY PALPITATION—SUDDEN GIVING WAY OF GENERAL OR SPECIAL FUNCTIONS.

The neurasthenic patient could not trust himself a half-hour or even a moment in advance. Even in the midst of any task, mental or muscular, his strength gave out as suddenly as if he were struck by lightning.

#### A FEELING OF PROFOUND EXHAUSTION UNACCOMPANIED BY POSITIVE PAIN—SPECIAL IDIOSYNCRASIES WITH REGARD TO FOOD, MEDICINE AND EXTERNAL IRRITANTS.

Opium, for example, was liable to aggravate the insomnia of neurasthenic patients. Alcohol agreed with some and disagreed with others, and in a remarkable manner. Coffee frequently acted badly with these cases. Special idiosyncrasies were so frequent that, were it not for the bromides, cannabis indica, and electricity, we should be utterly disarmed in the presence of such cases.

Dr. Beard closed his paper with the following suggestions:

*First.*—The above symptoms were not imaginative, but real; not trifling, but serious, although not usually dangerous. Strictly speaking, nothing in disease could be imaginary. If a pain was brought on by worrying or by dwelling upon one's own condition, it was as real as though it were brought on by any objective influence.

*Second.*—Symptoms of nervous exhaustion were in a measure antagonistic to each other; and nervous exhaustion was itself antagonistic to many other diseases, especially of the acute and inflammatory kind. Diseases prevented diseases, diseases cured diseases, and diseases were antidotes to diseases. Sufferers from chronic neurasthenia were safer in the midst of epidemics than others were, etc.

*Third.*—Nervous exhaustion was a modern and pre-eminently an American disease.

*Fourth.*—The treatment of nervous exhaustion should be in general of a sedative and tonic character, and should be applied to the whole condition of the patient and not to any one of the special symptoms. Electricity in central and general applications, passive exercise, mild active exercise, perhaps absolute rest in bed, judicious use of counter-irritation, fats, fish, and phosphates, small doses of cannabis indica, the bromides, calabar bean, gelsemium, caffeine, malt, oil, hydrobromic acid, were suggested as remedies. By the careful study of individual idiosyncrasies and the proper combination of remedial measures with hygienic, the majority of cases of neurasthenia could be relieved permanently, if not substantially cured.

The paper was discussed by Drs. Hubbard, H. Smith, and Weeks. The Academy then adjourned.

*Stated Meeting, April 18, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### SUPRA CONDYLOID AMPUTATION OF THE THIGH.

DR. J. W. S. GOCLEY read a brief but interesting paper upon the above subject, which will be published in a future number of THE RECORD.



INTRA-VENOUS INJECTION OF MILK AS A SUBSTITUTE  
FOR TRANSFUSION OF BLOOD—WITH CASES.

DR. T. GAILLARD THOMAS read a valuable paper upon the above subject, in which reference was first made to the origin, the history, and the present status of the operation of transfusion of blood.

Its occasional adoption as a therapeutical resource had been mentioned in Hebraic, Egyptian and Syriac literature.

It was not, however, until the year 1665 that it was placed upon a scientific basis as a surgical procedure, and since that date it had been an established operation.

To the question, "What is the real status of this resource in medicine?" Dr. Thomas gave the following answer: "Transfusion of blood into the human system is an operation the plausibility and theoretical advantages of which all admit, but practically the results of the operation amount to but very little indeed."

The insecure position which the operation occupied practically, was due largely to its inherent difficulties and dangers, nearly all of which arose from the tendency of the blood to coagulate. To overcome those difficulties and dangers various methods of preparing the blood for intra-venous injection had been suggested, and other fluids had also been offered as a substitute.

The object of the paper was to prove that in the milk of the cow we had a fluid which met all the theoretical and practical requirements of a safe intra-venous injection.

It might be said that milk and blood were not homogeneous fluids, and that the casein and other constituents of the milk, when introduced directly into the circulation, would be liable to give rise to disastrous results. But Dr. Thomas maintained that there was not much more want of homogeneity between blood and milk than existed between chyle and blood. The introduction of chyle into the blood was merely a part of a physiological process, and the injection of milk into the circulation was not altogether unlike copying one of nature's physiological processes.

Dr. Thomas then compared the chemical analyses of chyle and milk.

The doctor then proceeded to the relation of cases in which he had resorted to intra-venous injections of milk as a substitute for transfusion of blood.

The first was a lady from Oswego, N. Y., who resided temporarily in Brooklyn, N. Y. She was operated upon by Dr. Thomas for the removal of a large abdominal tumor in October, 1875. The case, in all its details, had already been published. Because of the severe loss of blood subsequent to the operation, and the general condition of the patient, it was resolved to resort to intra-venous injections of some restorative fluid, and Dr. Thomas decided to employ for that purpose perfectly pure fresh milk.

The suggestion of using intra-venous injections of milk was made by Dr. E. M. Hodder, of Toronto, Canada, who, twenty-eight years ago, employed it in the treatment of collapse in cases of Asiatic cholera.

The suggestion was revived by Dr. J. W. Howe, of New York, who, about one year previous to Dr. Thomas' first operation, had injected  $\frac{3}{4}$  vi. of goat's milk into the cephalic vein of a patient suffering from phthisis.

Accordingly a healthy cow was driven into the yard, and  $\frac{3}{4}$  viiiss. of milk drawn from her udder into a porcelain dish surrounded with warm water, was permitted to flow slowly into the median basilic vein of the patient from a glass funnel to which was attached a

rubber tube and a suitable nozzle to be introduced into the opening in the blood-vessel.

A rigor followed the operation; the temperature rose to 104° F.; but those symptoms soon passed away. On the twenty-first day after the operation, the lady was able to walk down stairs, and recovery was soon so complete that she was able to return to her home in Oswego.

Soon after, Dr. J. W. Howe made some experiments upon dogs. Into the veins of *five* animals he injected milk, and all died promptly.

DR. EUGENE DUPUY, at Dr. Thomas' request, repeated Dr. Howe's experiments, when it was found that intra-venous injections of milk which had been removed from the cow for a very short time uniformly proved fatal, while the injection of *perfectly fresh* milk was entirely innocuous. Those experiments revealed the secret of failure in Dr. Howe's experiments. The milk which he had employed had been drawn from the cow an hour or two previous to the time it was used, and had been transferred to the city in a railroad car. It had probably undergone chemical change before it was used in the experiment.

The *second* case reported by Dr. Thomas was operated upon for ovariectomy, Feb. 3, 1878.

Extensive adhesions were encountered in the operation. Peritonitis and abscess followed, and the condition of the patient became so grave that, on the twentieth day after the operation, it was determined to resort to intra-venous injections of milk. A cow was secured, and the milk, drawn into a pitcher covered with carbolyzed gauze, was, in less than one minute from the time it was taken, flowing slowly into the vein of the patient.

On the first of March a second injection was made, and  $\frac{3}{4}$  xv. of milk, taken in the manner referred to, was allowed to flow slowly into the vein. The injections were repeated March 2d, 4th, and 5th, and twelve, six, and eight ounces of milk respectively used.

The patient received in all five injections; *two* administered by Dr. Thomas and *three* given by Dr. Hunter, but the case terminated fatally. The result, however, could not be used as an argument against the operation, because, when the first injection was made, the patient was fairly moribund. At each subsequent operation it was the unanimous opinion of all who saw the patient that death was inevitable within a very brief space of time. It was thought that the patient's life was *prolonged* at least six days by the five intra-venous injections of milk. At autopsy there was found localized gangrene of the intestines, which proved that the case must have inevitably terminated fatally.

The *third* case reported simply proved that milk injected into the circulation was innocuous.

There were twelve cases upon record in which intra-venous injections of milk had been employed in the human subject: three by Hodder; two by Howe; and seven by Thomas.

The conclusions reached by Dr. Thomas were embraced in the following propositions:

1. Injection of milk into the circulation in place of blood was a perfectly feasible, safe, and legitimate procedure.

2. In this procedure none but healthy milk, drawn from the udder of the cow within a few minutes of its introduction into the vein, should be employed.

3. A glass funnel, with a rubber tube and a suitable pipe attached, was much better and safer than a more elaborate apparatus.

4. Intra-venous injection of milk was an infinitely

easier operation to perform than transfusion of blood.

5. Intra-venous injection of milk, like that of blood, was commonly followed by a chill and rapid rise in temperature, but those symptoms soon subsided and were replaced by a great improvement in the general condition of the patient.

6. He would not limit lacteal injections to cases in which profuse and exhausting hemorrhage had occurred, but recommend their use in certain cases of typhoid fever, pneumonia, cholera, etc. In conclusion it was suggested that if milk answered only nearly as good a purpose as blood for intra venous injection, its use would create a most interesting and new era in the therapeutical department of medicine.

The paper being before the Academy for discussion—

Dr. HERCURNSSON, of Brooklyn, upon invitation, remarked that, although he had not had any experience with reference to intra-venous injections of milk, he had had some experience in the use of other fluids that might not be uninteresting to relate. During the cholera epidemic which occurred in New York and Brooklyn, in 1853, he resorted to intra-venous injection in five cases of collapse from that disease. In two cases the fluid used consisted of  $\frac{3}{4}$  iv. of the chloride of sodium,  $\frac{3}{4}$  ii. of alcohol, and Oij. of water. The two pints were used at a single operation.

In three cases a fluid was employed which was supposed to be very nearly like the serum of the blood. It was composed of grs. lx. of chloride of sodium, grs. vi. of chloride of potassium, grs. iij. of chlorate of soda, and grs. xx. of carbonate of soda. Of such a salt, 140 grains were dissolved in forty ounces of water, and nearly the entire quantity injected into a vein. The apparatus employed was very similar to that used by Dr. Thomas, and the fluid was kept at a temperature of 100° F. All the patients died. The effect produced by the intra-venous injections was very marked. The patients were aroused from their profound lethargy, color returned to the surface, perspiration ceased, the pulse reappeared, the intelligence was awakened, and in every case there seemed to be good prospect of recovery. In each case, however, death occurred within twenty-four hours. In one case the injection was repeated.

Dr. Hutchinson was not able to resist the conviction that, when a proper fluid was obtained, when we knew the quantity to be used, and the rapidity with which it should be injected, most valuable therapeutical results could be obtained.

Dr. A. JACOB remarked that the report which Dr. Hutchinson had made with reference to intra-venous injections of saline solutions, agreed with those made by other observers—namely—that the patients invariably revived, but afterwards died. Modern experiments with saline solutions and serum had demonstrated why such results followed. It was because the saline injection, no matter how formed, was at once eliminated.

There was one point upon which Dr. Thomas had not dwelt, and to which he would make allusion. Dr. Thomas had referred in general terms to the poisonous character of milk which was an hour or two old. Naturally, we would not expect that any chemical change existed in cow's milk immediately after its removal. But there were a certain number of cows in which the milk had an acid reaction even when in the udder. A large number of specimens of milk were neutral, and turned acid very quickly after removal. But whether neutral, or acid, or alkaline, depended to a great extent upon the food which the animal had taken.

It was necessary that cows should feed in pasture in order that the milk should be naturally alkaline. Milk to be introduced into the blood must be alkaline, for the blood did not at all tolerate the presence of acids. It was that fact probably that gave explanation to the ill effects produced in Dr. Howe's experiment, and the absence of ill effects in Dr. Dupuy's experiments. The question then suggested, itself would it not be well in every case, before the milk was used, to test it with litmus-paper, and if it be acid, to make it alkaline by the addition of carbonate of soda? Cow's milk, when introduced into the blood, should be a little more alkaline than it was naturally.

Again, it would, perhaps, be well to warn operators against injecting too large quantity at a single operation.

Dr. THOMAS remarked that the point last referred to by Dr. Jacobi had been illustrated in the case in which five injections were given.

From six to eight ounces was probably about a reasonable quantity; eight was probably the maximum, and five the minimum quantity to be used at a single operation.

The Academy then adjourned.

## Correspondence.

### THE TREATMENT OF ABORTION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Under the above title Dr. H. C. May, of Corning, N. Y., sends an interesting correspondence (*THE MEDICAL RECORD*, April 20, 1878), in which he reviews a late lecture by Prof. Dr. Penrose, of Philadelphia, dissents from the treatment therein recommended, and gives a typical illustration of his own treatment of this class of cases. It should not be forgotten that the report of one case, or even of several, is but the report of individual experience in the treatment of individual cases, and in most instances does not form a safe basis for scientific deductions. If there were fixed rules regarding the management of cases of abortion, the services of the obstetrician could be dispensed with, and their mechanical application trusted to nurses or an ingenious next-door neighbor. But such is not the fact, and it may be said, without incurring the risk of being rash, that scarcely any two cases occur which, from beginning to end, can be properly managed in exactly the same way.

To illustrate the plausibility of another plan of treatment, I will refer to a case almost identical in character with the one reported by Dr. May, and in which the result was equally satisfactory with that obtained by tamponing the vagina and administering ergot. Before giving the history of my case, however, I will say that tamponing the vagina under certain circumstances, in connection with abortion, is a plan of treatment which merits approval. I was summoned to go in great haste to see Mrs. H., at 38 years, an American, and the mother of six children. The messenger was a son of the patient, and said that his mother was "dying." I went in "obstetric haste," although the nature of the lady's sickness was a mere suspicion. When I had reached her bedside, I was immediately informed that she had been, and was then, suffering from profuse hemorrhage from the vagina. A glance at her face, a touch of the



pulse, and the saturated bed sustained the statement, and, without waiting to address my patient with reference to the last asteroid which had been discovered, I at once passed my finger into the vagina, at the same time making firm pressure over the middle hypogastrium, passed through the clots, found a placenta projecting from the mouth of the uterus, hooked my finger into it, and withdrew the mass, clots and all. The whole operation occupied probably one minute. The finger was immediately reintroduced into the vagina, the os touched, and found firmly closed. The hemorrhage had ceased. While attending to the patient, I had directed the husband to prepare a "whiskey sling." It was prepared as by the hand of an expert, and a few teaspoonful doses, associated with a moderate dose of opium, removed the faintness, revived the pulse, and elevated my patient into a very comfortable condition. I remained an hour, the favorable condition continued, and I returned home. On visiting my patient the next morning, I found her with a moderately full pulse, temperature slightly elevated, but no symptoms were present which gave rise to any anxiety. Her recovery was rapid and complete.

I did not tampon the vagina, I did not administer ergot, my patient did not vomit, and I was not compelled to remain by her bedside "three hours," and resort to various remedies for the purpose of overcoming "the deadly nausea and depression." Yet I do not mean to say but that in my next case of abortion I tamponed the vagina, administered ergot, and found the placenta in the vagina within twenty-four hours.

At my first visit I learned that pregnancy had not been suspected, for the reason that, although one menstrual period had been passed over about three months previously, she had been "unwell" twice since, and at the time in the month when menstruation usually occurred. The hemorrhage appeared quite suddenly, without definite known cause, and the discharge of the placenta convinced the woman that pregnancy had existed. It is not my purpose in this letter to disapprove of the plan of treatment adopted in Dr. May's case, but simply to report a case which terminated equally as favorably under another plan of treatment, which the doctor perhaps would not regard as "a more conservative and therefore a more excellent way." WESLEY M. CARPENTER, M.D.

210 E. 30TH ST., NEW YORK.

## THE AMERICAN APPARATUS.\*

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Dr. Van Buren, in his admirable résumé contained in a recent number, of the authorship of what I had suggested might be called "The American Apparatus," questions the propriety of the suggestion, and I think with some force. Certainly it was not my intention to convey the idea that there was no other employed by good American surgeons; but as I could not retain for it the name of "Buck's" apparatus without doing apparent injustice to others who had contributed so much to its perfection, and, as at present employed, it differs considerably from that described by Dr. Buck, a change of name was thought to be necessary to avoid misapprehension. Most, if not all, who had contributed materially to its completion, were Americans. I therefore suggested "The American Apparatus," much as I would speak of "The New York Hotel," which would not necessarily

imply that there was no other hotel in New York. It was simply that the apparatus might have a name which would in itself distinguish it from other forms of apparatus. If, however, it should lead any one at home or abroad to think that the ingenious and excellent apparatus devised by Dr. Nathan Smith, or that the still more ingenious and useful apparatus devised by Dr. Hodggen, of St. Louis, were not used by American surgeons, I would prefer to retain the old and familiar name of "Buck's Extension," and especially because, if he did not devise the apparatus as it is now generally used by us, he at least did more than any other man, by his publications and by the influence of his great name, to popularize the essential principles embodied in its construction.

Very truly yours,

FRANK H. HAMILTON.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 14 to April 20, 1878.*

RANDOLPH, J. F., Major and Surgeon. Relieved from duty at Fort Trumbull, Conn., and to proceed to Philadelphia, Pa. S. O. 66, Department of the East, April 16, 1878.

IRWIN, B. J. D., Major and Surgeon. Relieved from duty at U. S. Military Academy, West Point, N. Y., August 28, 1878, and then to report by letter to the Surgeon-General. S. O. 79, A. G. O., April 13, 1878.

ALEXANDER, C. T., Major and Surgeon. To report in person to the Commanding General, Dept. of West Point, for duty at the Military Academy, August 28, 1878. S. O. 79, C. S., A. G. O.

WATERS, W. E., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Clark, Texas. S. O. 77, Dept. of Texas, April 10, 1878.

MIDDLETON, P., Capt. and Asst. Surgeon. Relieved from duty at Fort Clark, Texas. S. O. 80, Dept. of Texas, April 13, 1878.

POPE, B. F., Capt. and Asst. Surgeon. Relieved from duty at Fort Stockton, Texas. S. O. 80, C. S., Dept. of Texas.

STYER, CHAS., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, ordered to Philadelphia, Pa., and, on arrival, to report by letter to the Surgeon-General. S. O. 81, A. G. O., April 16, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 20, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| April 13, 1878... | 0             | 9              | 79             | 3                          | 89       | 38          | 0          |
| April 20, 1878... | 0             | 5              | 115            | 1                          | 130*     | 68          | 0          |

ARKANSAS STATE MEDICAL SOCIETY.—The Third Annual Session of this Society will be held in Fort Smith, Wednesday, May 1, 1878.

\* The above letter was received some time since, but its publication has been accidentally delayed.—Ed.

\* Thirty-three cases of measles were reported from the Nursery and Child's Hospital.

CONGRESS OF GERMAN SURGEONS.—The Seventh Congress of German Surgeons was held at Berlin, April 10th to 13th.

DR. BENJ. BRODIE, of Detroit, was recently presented with an elegant edition of Holmes' Surgery from the Wayne Co. Society.

LONDON PATHOLOGICAL SOCIETY.—There are a few vacancies for honorary membership in this body which are to be filled by eminent men from other countries. A few of such can be found in this village.

TENNESSEE STATE MEDICAL SOCIETY.—The annual meeting of this Society was held at Memphis, Tenn., April 3d and 4th. Dr. R. H. Evans, of Shelbyville, was elected President, and Dr. J. Berrien Lindsley, of Nashville, Secretary.

CHLORAL HYDRATE AS AN ANTISEPTIC.—Prof. Dunster (*Michigan Medical News*) calls attention to chloral hydrate as an invaluable local anodyne and antiseptic in cases of uterine cancer. He uses it in the strength of 10 to 30 grains to the ounce.

THE IOWA CATLIN is the name of a monthly medical journal published in Osceola, Iowa. The first number appears April, 1878, and contains forty octavo pages, in which are some excellent selections. Dr. Edward Lawrence is the editor, and judging from his first effort in the present number is abundantly able to fill his chair.

DISPENSARY TICKETS.—The giving of dispensary tickets by subscribers to these institutions in Ireland is so much abused that it is proposed either to render liable for professional fees those who give the tickets to unworthy persons, or to deprive them of the opportunity of signing tickets in the future.

STATISTICS OF OPERATIONS FOR STONE.—At a recent meeting of the Royal Medical Society, London, Sir Henry Thompson read a summary of his experience in operations for stone in the bladder of the male adult, embracing in all five hundred cases, and exhibited calculi from each case. Small phosphatic concretions, though removed by lithotomy, were not regarded in the *résumé*. Of the 500 exhibited 313 were uric acid calculi; 99 phosphatic; 81 mixed; one was a case of cystic oxide; two were pure phosphate and carbonate of lime, and four were phosphatic, formed on foreign bodies. The mortality, accepting death within six weeks as due to the operation, was 32 in 422 cases of lithotomy, and 29 in 78 cases of lithotomy; total, 61 deaths in 500 operations. When calculi are so large as to require the fenestrated instrument, Sir Henry thinks lithotomy should be performed; when less, lithotomy. Mr. Cadge related 220 operations, of which 134 were by lithotomy, and 86 by lithotomy. Of the former 20 per cent. died; of the latter 10 per cent.

ST. MARY'S FREE HOSPITAL FOR CHILDREN.—Arrangements are in progress by which, according to the eighth annual report of the Sisters of St. Mary, a seaside cottage will be put in operation this summer for the benefit of convalescent children. It is also proposed to erect the new hospital building, planned by Mr. Henry M. Congdon, the front elevation of which is shown in the report, as soon as the funds can be raised by subscription, but the managers have decided not to commence until the work can be prosecuted to the end without interruption from pecuniary stress. The hospital now occupies a refitted dwelling-house at 407 W. Thirty-fourth Street, but has, notwithstanding its limited facilities, received eighty patients during the year, which, with the twenty-five under treatment when the year opened, gives an aggregate of one hun-

dred and five. Forty-four cures, nineteen materially benefited; ten deaths, six not treated, and twenty-six in hospital January 1, 1878, complete the brief statistics of the institution. Nine operations have been performed, of which four were excision of the hip-joint.

TREATMENT OF TETANUS.—Dr. Jackson, late Presidency surgeon at Calcutta, is cited in an article in the *Lancet*, upon the treatment of lockjaw (tetanic spasm), as having in a pamphlet, published as early as 1856, rejected the usual treatment of ice to the spine, with opium and camphor, as productive of no beneficial results in the majority of instances. "I have," says the Calcutta practitioner, "found cannabis indica and aloes decidedly more valuable, and have sometimes used anæsthetics with great benefit; but it was not until I had commenced to use the latter in combination with the former, supporting the patient with a good diet, quinine, and wine, and insisting upon perfect rest, that I met with anything like uniform success." Dr. A. P. Boon, of St. Kitts, W. I., records five cases, three of them traumatic and two idiopathic, which terminated in recovery, under a combined anæsthetic and cannabis indica treatment, care being taken as to the exclusion of light, drafts of air and all distracting noises, and stimulants being freely administered. As the fatal termination is contingent upon apnoea, Dr. Boon recommends that artificial respiration should be commenced at once upon the apparent supervention of death, and persevered in until suscitation is evidently hopeless. Dr. Watson Paul reports in the same issue a case treated successfully with combined anæsthetics and atropia.

SHORT-SIGHTEDNESS IN DIFFERENT COUNTRIES.—In the course of a careful review of Dr. Loring's communication, printed in the Transactions of the recent International Medical Congress, at Philadelphia, Dr. A. H. Jacob, formerly Ophthalmic Surgeon to the City of Dublin Hospital, arrives at the conclusion that the progress of short sightedness in the three countries, Germany, Russia, and the United States, presents points of such radical difference as to render a comparison between them of the utmost importance. In the two former, there is a noticeable decrease in the percentage of hypermetropes between the ages of 6 and 21, the hypermetropia rapidly disappearing in Russian and German eyes between the ages specified. The loss is the more frequent in Russia, in the proportion of 31 to 9. In the United States, on the other hand, the percentage of hypermetropes constantly increases during the same period. Myopia, however, develops itself in all countries at about the same age, to wit, commencing at 6 and making gradual progress during the years of school attendance. Dr. Jacob coincides with Erismann, Max Conrad, Derby, and Agnew, in giving the percentage of short-sighted persons (myopes) as considerably larger in Germany than elsewhere. In Russia it is stated as 39.2 per 100 between the ages of 6 and 21; in Germany, 51.0, or a little more than half of the whole number; in the United States, 23.24, or a little less than one-fourth. In Russia and Germany the majority of eyes are hypermetropic until the age of 13, when they become normal or emmetropic. From that age the number of myopes constantly advances. In this country, on the other hand, the majority are normal in the first instance, and remain so until 21 years of age; while of those in which myopia occurs at all, the hypermetropia is not corrected until 17 years old, when the vision becomes normal for a short time, and then passes gradually into short-sightedness.



## Original Lectures.

### LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

By E. C. SEGUIN, M.D.,

CLINICAL PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

#### LECTURE II.

SYNOPSIS.—I. SYSTEMATIC LESIONS OF THE SPINAL CORD; LESIONS IN THE ÆSTHESODIC SYSTEM, LESIONS IN THE KINESODIC SYSTEM.

GENTLEMEN:—As a basis for our study of the diagnosis of the location of lesions in the spinal cord, I offer you the following classification, which I think embraces all that sound clinical observation and post-mortem examination will justify us in diagnosing with certainty.

#### I. Systematic Lesions of the Spinal Cord.

##### II. Non-systematic or Focal Lesions of the Spinal Cord.

By the former we are to understand pathological changes which involve one of the gray or white columns of the cord for a part or the whole of its extent up and down, without extension to adjacent columns. Such lesions are almost always symmetrical in the two halves of the organ; and occasionally more than one such lesion may be present.

By the second form of lesion we understand a focus of disorganization or new tissue growth involving the spinal cord in a limited part vertically, and invading diverse columns, or even systems, transversely. These are the *lésions en foyer* of French authors.

The first group may be subdivided as follows:

#### I. Systematic Lesions of the Spinal Cord.

##### a. Lesions in the Æsthesodic System.

1. Sclerosis of the Columns of Goll.
2. Sclerosis of the Columns of Burdach.

##### b. Lesions in the Kinesodic System.

1. Sclerosis of the Anterior Columns.
2. Sclerosis of the Lateral Columns.
  - a. with changes in Anterior Horns.
3. Degeneration of the Postero-lateral Columns.
4. Myelitis of the Anterior Horns.
5. Degeneration of Ganglion Cells of Anterior Horns.
6. Central Myelitis.

In studying the above forms of disease, I shall apply more or less rigidly the following method:

First, state the general symptoms which indicate disease in the part of the spinal cord (the system) affected. Second, accurately locate the lesion, and state the symptoms produced by it particularly. Third, say a few words concerning the disease in question.

a. Lesions in the æsthesodic system are characterized by the following symptoms: Pain, usually of a peculiar kind, hyperæsthesia, numbness, and anaesthesia; by a peculiar disorder in voluntary movements, viz.: ataxia: and, negatively, by the absence of true paralysis or spasm in the affected limbs.

1. Sclerosis of the columns of Goll, or the posterior median columns. Whether in the ascending secondary

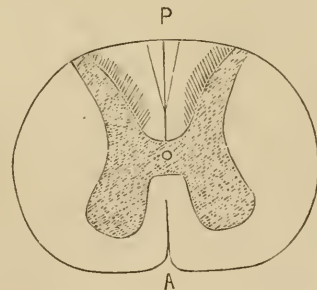
degeneration, or idiopathically produced (one case), the lesion occupies the more or less exactly triangular space lying between the columns of Burdach. At the lowest part of the cord the lesion is hardly visible, owing to the smallness of the columns at this point, but in the cervical region it is quite large and distinct. At the calamus scriptorius the lesion disappears, and so far has not been traced higher up. In Pierret's case these columns were sclerosed throughout their whole extent. In cases of ascending secondary degeneration they are diseased only above the focus of disease.

The common lesion of the columns of Goll (secondary degeneration) gives rise, so far as we now know, to no symptoms; consequently, we can only infer its presence by determining the existence of a lesion capable of producing ascending and descending degeneration in the spinal cord.

The symptoms in the single case of idiopathic disease of these columns (Pierret's) are too uncertain and too badly reported to be of any use. They consisted in numbness, slight anaesthesia, and a tendency to retropulsion.

It is right to conclude that we cannot to-day directly diagnose disease limited to the columns of Goll.

2. Sclerosis of the columns of Burdach, or the posterior root-zones. The lesion begins in the outermost portion of these columns, near the inner margin of the posterior horns, and, extending forward and inward, ultimately occupies the whole of the columns of Burdach, as shown in the accompanying diagram.



The section showing this lesion, which I now pass around, was taken from the cervical enlargement of the spinal cord of a woman who had typical locomotor ataxia in the lower and upper extremities, gastric crises, diplopia, and amblyopia. In most fully developed cases of locomotor ataxia the sclerosis is found to occupy the posterior median columns as well, i. e., the whole of the posterior columns are degenerated; but, since the researches of Pierret upon the functions and pathological anatomy of the posterior median columns, we must look upon changes in them as secondary to the sclerosis of the columns of Burdach.

In complicated cases of sclerosis of the posterior columns there may also be sclerosis of the lateral columns, or degenerative changes in the central and anterior gray matter.

The symptoms which are characteristic of sclerosis of the columns of Burdach are, in order of importance, pain, hyperæsthesia, anaesthesia, ataxic movements. I can only in these lectures call your attention to the great diagnostic symptoms, and must not attempt to delineate the semeiology, etc., of any disease; yet the above symptoms deserve more than a mere mention. The pains are peculiarly characteristic—nay, almost pathognomonic. They are of several varieties. First,

\* Delivered at the College of Physicians and Surgeons during the months of December, 1877, and January, 1878.

sharp, lancinating cutaneous pains, appearing in spots, usually circular or oval, in size from one to two inches in diameter, in any part of the limbs which are afterward to become ataxic. A few shootings may take place in one spot, or it may be the seat of pain for twelve or twenty-four hours. A capital point is the capriciousness with which the pains appear in any and all parts of the limbs—toes, thighs, calves, shins, etc. They are vagrant or vagabond pains, in sharp contrast to the fixed *neural* pain of neuralgia. Second, deep, boring pains; and third, tearing or bruising deeper pains, affecting the articulations as well. These pains are also vagabond and capricious in their mode of appearance. They may exist for years without anæsthesia and ataxia showing themselves, and both patient and physician are apt to speak of the pains as "rheumatic," instead as of pathognomonic of an incurable disease. Hyperæsthesia accompanies and succeeds the pain, more especially in the patches of skin which are the seat of stabbing pains. During the paroxysm, and for hours afterward, the patch or patches are exquisitely sensitive, and hyperalgesia exists. Anæsthesia is said to be present very early in the disease, as well as later. In the former case it occupies patches of skin on the legs, arms, and trunk, according to the extension of the disease. In the second case it is found under the feet, later in the legs, and may involve the whole of the lower (and upper) extremities toward the close of the disease.

The ataxic walk consists in a jerky, stamping gait, the abductors and extensors acting over-forcibly; the want of co-ordination affects large muscular groups, thus differing from chorea, paralysis agitans, etc. But a somewhat similar ataxia may be present in cases of intra-cranial disease, so that I would urge you to fall back upon the sensory symptoms for your diagnosis.

Many practitioners employ what they consider a sure and ready test for locomotor ataxia, viz., they bid the patient try to stand with his eyes closed. If he stagger or fall, he is said to have the disease. Now, I would have you all bear in mind that this test is worthless. Oscillating with closed eyes is a symptom common to many cerebral, spinal, and peripheral morbid states, as hysteria, myelitis, etc. I once artificially froze the soles of a patient's feet, and showed him in this amphitheatre with an excellent stagger when his eyes were closed. He staggered because his feet were anæsthetic, and that is one reason why hysterical women and the bearers of myelitis do the same. We may safely put it in this way: patients with locomotor ataxia, at a certain stage, do stagger when their eyes are closed; but, as the bearers of several other spinal diseases do the same, the sign has no special value.

For many years, and even long after the patient is absolutely unable to stand, there is almost no paresis and no diminution of reflex or of electrical excitability in the affected extremities, unless the sclerosis extend forward into the gray matter.

We ought, I think, to be able to correctly diagnose this lesion in its first stage, viz., when only pain and hyperæsthesia are present.

*Historical Consideration.*—The clinical history of locomotor ataxia has been fairly well known since 1835 or 1840; German physicians describing it in great part under the name of *Tabes Dorsualis*. Romberg, in 1853 (and earlier), gave almost a perfect picture of the disease; but it was reserved for Duchenne (1859-60) to recognize the value of the pains and of the ataxia, as distinguished from paresis, as cardinal symptoms. Although Duchenne's description of the affection has hardly been improved upon, it must be

admitted that he knew nothing of its pathological anatomy, and was quite wrong in his explanation of the symptoms. Yet the lesion of locomotor ataxia, or *tabes dorsualis*, had already been discovered by Türck in 1857. Unfortunately, he buried his remarkable paper in the *Transactions of the Academy of Vienna*; and Gull (Sir William) independently made the same discovery in 1859. In France, Bourdon worked out the pathological anatomy in 1861, and since, our knowledge upon the point has grown enormously. The anomalies of locomotor ataxia, both semiological and pathological, have been best studied by Charcot and his pupils. In 1873, Charcot and Pierret published their cases demonstrating that the primary essential lesion of locomotor ataxia involves the columns of Burdach.

b. Lesions in the kinesodic system are characterized by the following symptoms: paresis or paralysis, spasm, and muscular atrophy; and, negatively, by the absence of anæsthesia, or of marked and permanent pain or numbness.

1. Sclerosis of the true anterior columns or columns of Türck, or, best, the direct pyramidal fasciculi, has been known pathologically since the publication of Türck's first papers in 1851. Its semiology is, however, unknown. We can infer its existence in those cases in which we diagnose lesion No. 3 (*infra*), because pathological anatomy shows us that the two lesions are usually simultaneous.

2. Sclerosis of the lateral columns. The lesion consists in an increase of the neuroglia and atrophy of nerve-fibres in the lateral masses of white substance throughout a greater part or the whole of the spinal cord. It may exist alone as a primary lesion, or may be associated with other (secondary) morbid processes, such as No. 4 (*infra*).

The symptoms consist in progressive paresis of the lower limbs, and later of the upper, with increased reflex, and a tetanoid state of the extremities. There is very little sensory disturbance, never anæsthesia; the paralyzed and tetanized muscles do not undergo atrophy; and the bladder is not in the true sense of the word paralyzed.

These symptoms have been designated by various names. Erb calls the symptom-group spastic spinal paralysis; Charcot, spasmodic tabes; and I would suggest the term tetanoid paraplegia or paralysis. Erb in 1875, and Charcot in 1876, Erb again this year, have fully described the clinical aspects of the disease.

In 1873 I described, under the title of tetanoid pseudo-paraplegia, the symptoms of the semi-developed disease, of that transition period when the patient is still able to get about upon his morbidly stiffened limbs. I failed, however, to seize upon the whole clinical picture.

The pathological anatomy of this affection does not as yet rest upon a firm basis. Türck in 1859 published three autopsies in cases of this sort, but their clinical features had not been worked out. In 1865 Charcot reported sclerosis of the lateral columns as the lesion found in a woman who had suffered from aggravated hysteria, with contractures of the extremities, for many years. In the essays of 1876-7 no other autopsies are recorded.

2 a. Combination of lesion of the anterior horns with sclerosis of the lateral columns. Charcot, in 1874, first called attention to this complex systematic lesion, and designated the disease as amyotrophic lateral sclerosis.

The cervical enlargement of the spinal cord being nearly always the first part affected, we observe that the symptoms appear first in the hands; a paralytic



atrophy setting in with considerable rapidity. Fomication and fibrillary movements may be present. The atrophy resembles more that observed in myelitis of the anterior horns (No. 4) than in degeneration of the ganglion cells of the anterior horns (No. 5). In a short time a degree of rigidity appears in the upper extremities, and the legs become first paretic, later, rigid and contracted. This contracture may be greatly relaxed while the patient is in bed, but is exaggerated if he try to stand or walk. In consequence of great atrophy of the interossei, the "claw-hand" deformity may appear. As a rule, the muscles of the lower limbs do not waste. The bladder and rectum are not paralyzed, and no anæsthesia is observed. If the patient's life be prolonged, the disease invades the nuclei of the motor bulbar nerves, and to the above picture we have superadded the symptoms of labio-glosso-laryngeal paralysis.

Cases of this kind had been observed prior to 1874, but it is Charcot who in that year first gave us a clear statement of the pathological anatomy and semeiology of the disease. The connection between the two lesions, disease in the anterior horns, and sclerosis of the lateral columns, is by no means understood, and it may be questioned whether they are pathologically related.\*

3. Degeneration of the posterior part of the lateral column, or (better) of the crossed pyramidal fasciculus. The lesion occupies, in a transverse section, a part of the white substance which lies between the lateral column and the posterior gray horn. It is separated from the periphery of the cord by healthy tissue, the direct cerebellar fasciculus. This alteration of tissue is secondary to a lesion in parts of the nervous centres above the decussation of the pyramids; in the anterior pyramids, the great motor tract in the basis cruris cerebri, the anterior part of the internal capsule, the nucleus caudatus, the convolutions comprising the excitable districts of the cerebrum. Lesions of any of these parts cause what is known as secondary degeneration throughout the motor tract, to the lowest part of the spinal cord. Consequently, the lesion in the spinal cord is always (?) on the side opposite to that on which the primary, supra-spinal disease exists. Hence, also, we usually find descending degeneration only in one-half of the cord. It should be remembered, however, that, as a portion of the anterior pyramid of the medulla does not decussate, but descends as the direct pyramidal fasciculus, or column of Türk, we must expect to find in many cases a similar lesion of this fasciculus on the same side as the supra-spinal lesion (No. 1). For example, after a lesion involving the great motor tract in the left hemisphere, we shall find descending degeneration of the crossed pyramidal fasciculus in the right half of the cord, and of the anterior column, or direct pyramidal fasciculus in its left half.

The symptom characteristic of this morbid condition is the secondary contracture, or late contracture, which so often succeeds attacks of hemiplegia, being superadded to paralysis or anæsthesia. This lesion may be complicated with No. 4, when atrophy of some of the paralyzed and rigid muscles supervenes.

In briefly mentioning the historical data connected

with this lesion, I must again mention Türk, the great pioneer in the pathology of systematic lesions of the spinal cord. In 1851 and 1853 he exactly described the crossed part of the lesion. An excellent study of this and other forms of secondary degeneration was made by Bouchard in 1866, under the direction of Profs. Vulpian and Charcot. Last year Flechsig published his remarkable researches upon the nervous centres, and more exactly defined the seat of both the crossed and the direct degenerations. To Prof. Bouchard is due the credit of completing the clinical picture, by pointing out the value of the symptom contracture.

## Original Communications.

### DISEASES OF THE EAR FROM BATHING.

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THE deeply-situated portions of the ear embedded in the skull are exceedingly liable to certain painful diseases, when their dense, bony case becomes a bed of torture, and their remote situation is an obstruction to the efforts made for their relief. The middle ear, with which we shall have principally to deal here, has passing through it a tube, one portion of which, the external auditory meatus, communicates with the air external to the body, and the other portion, the Eustachian tube, with the air as it exists in the throat. The vibrating membrane of the middle ear prevents the air passing through this tube.

In order that this portion of the ear may perform the function of conveying sound to the inner ear, its structure must be exceedingly delicate.

This delicate apparatus is constantly exposed to an ever-varying atmosphere which comes in contact with it on both sides, and is constantly getting it out of order, usually by sudden, acute inflammation.

This middle ear then, which is the portal, as it were, to still more delicate portions of the ear situated deeper yet in the petrous bone, is found to be quite susceptible to atmospheric influences, such as cold, violent vibrations, etc., the former setting up inflammation, and the violent vibrations rupturing the membrane, or otherwise damaging the organ by their shock.

If this organ now be immersed in an element wholly different from the one in which it is constructed for performing its normal functions, we may expect striking effects. Such an element is water, which in bathing, especially diving, is apt to be brought in contact with the sensitive middle ear, through either of the channels of communication previously referred to, the heavier water quickly displacing the air which naturally occupies the passages leading to the ear.

Although bathing is well known as a source of aural disease, I only became aware of its magnitude after special research during the bathing season of last year, which included the months of May, June, July, August, and September.

During this period of time, I saw in the public clinics of this city and in my office, about 800 aural cases of all descriptions, which included 65 having their origin in salt-water bathing.

\* Since this lecture was delivered, Prof. Flechsig, of Leipzig (in *Archiv der Heilkunde*, 1878, Heft 1), has made an elaborate critique of Charcot's cases and others, and claims that the lesion in the lateral columns is chiefly in the postero-lateral columns, as in descending degeneration from cerebral lesion, and that the nature of the lesion seems more like a degenerative than a sclerotic one. Flechsig suggests that future research may reveal a double lesion in the cerebrum, or, at any rate, in the upper part of the intra-cranial motor tract. This view seems to me well worthy of consideration, and a careful attempt should be made to verify it.

It may be interesting to those who may have here their attention drawn to this class of patients to state a result of my experience, namely: The majority of persons who contract aural affections from salt-water bathing are disposed to attribute them to "taking cold," etc., referring to the real cause only incidentally or after being closely questioned.

Indeed, patients will experience frequent exposures of this kind, and from them become quite deaf, without once suspecting the cause. This will serve to explain why bathing, as an exciting cause of earache or deafness, is so often overlooked by both physician and patient: for if it were not, there would be less imprudence in bathing, and even a surf bath would not be taken without caution. The plain duty of the physician is, in ordering baths for his patients, to give them such instructions as will prevent an agreeable mode of treatment becoming a source of painful injury.

I have seen of late several cases, mention of which will be made in an addendum to this article, where the Russian bath has provoked serious aural trouble, two of the cases being physicians. I have met with but few persons who felt the necessity of making any effort to protect the ears when bathing. A few, indeed, have some notion that a pledget of cotton wool protects the ears, and some hold the nose when diving.\*

The entrance of water into the ear was well known in ancient times to be productive of aural disease.

Avicenne, a Persian physician of the tenth century, enumerates among the causes of aural disease, "water getting into the ear."†

When it is considered that so eminent an authority gave prominence to this source of a most common affection, we should indeed be greatly surprised that the subject is so much neglected in modern times.

It is not easy to make an estimate of the number of aural cases arising from bathing, but with the best data within reach it is safe to state that the physicians of New York City, with its population of 1,000,000, see no less a number than 1,000 during the bathing season. At least as many more do not consult a physician.

According to this approximation 1 in every 500 is more or less affected annually, and the number may be much greater.

Von Tröltzsch estimates that only 1 person in 20 has normal hearing power.

As most statistics are collected in the large cities situated on the seaboard, we may conclude that many cases of deafness going to make up the list from which Tröltzsch deduces his estimate are from deafness produced by salt-water bathing.

From this view chronic catarrh of the middle ear may not occupy so conspicuous a position as heretofore as the principal factor in causing deafness.

Before entering into an account of the manner in which water may reach the delicate structure composing the auditory apparatus, it may not prove uninteresting or unimportant to view the construction of the ear in such animals as are compelled to live a portion or all of the time in water.

The marine quadrupeds which interest us most, such as the seal and the like, can remain under water a long time, and it is found that the construction of their ears is such that no damage can occur to the organ from their frequent excursions from a warm at-

mosphere to the colder element. We find that when diving they close the mouth and nostrils, and that they are provided by nature with a movable membrana which is drawn over the ear as they enter the water. Of course they do not breathe under water. The crocodile is similarly constituted.\*

The water shrew obtains the same protection when pursuing its game into water by the action of certain muscles which draw the meatus inwards, and at the same time close it.

The auditory apparatus of the whale is particularly instructive. The external auditory meatus is small, and begins externally with a narrow opening, finding its way to the tympanum as a long, tortuous tube.

This tube's construction would preclude the idea of its being intended to permit sound vibrations to reach the membrana tympani, and this indeed is found to be the case, for the tympanic membrane is convex outwardly—the opposite condition to that in man and other mammalia. The Eustachian tube, however, is very large, and is connected with the respiratory apparatus, which in this animal has frequent communication with the surface, and permits the sound vibrations to reach the tympanic membrane while the external meatus is submerged.†

The ear of the porpoise is similar to the above. The tympanic membrane and other important features are said to be absent in snakes and many of the saurians. Some lizards and frogs have an exposed membrana tympani. Moles, which burrow in the earth, have a closed meatus.‡

Animals living exclusively in water have the auditory apparatus specially adapted to their wants; and in some of the lower orders of marine life an auditory nerve has not been demonstrated. The latter, it is supposed, receive sound impressions by means of the shock imparted to the body. The subject might here be pursued much further with interest, but enough has been elicited to aid us very much in the investigation of the matter under consideration.

It is thus seen that all animals which live in water, or whose habits require that they should remain in that element a portion of the time, are provided by nature with ample means for protecting the organ of hearing.§

Man, however, has none of the amphibian's peculiar anatomical organization, with which he may safely shut out the water from his ears, and he is therefore in great danger when his head is submerged. The ears may be plugged, the nose held tightly closed, and the mouth shut when he dives, but much risk is taken even thus guarded, and practically it is not a protection, for ordinarily water will enter the ears at the meatus, or through the mouth and nostrils.

The water may act injuriously upon the ear in several ways. It may injure the drum-head by the mere force of impact, as when it is driven into the meatus with great violence in surf-bathing. This effect takes place more frequently where the individual has a very large auditory meatus. In fact, I have found the calibre of the auditory canal, in those whom I have examined for aural affections induced in this manner, to be larger than the average. And I have no doubt but that the Eustachian tube is also larger in the same individuals, and when an incoming wave dashes

\* Miall: *The Skull of the Crocodile*. Macmillan & Co., London, 1878.

† Pilcher.

‡ Bergman and Leuckart: "Comparative Anatomy and Physiology." Stuttgart, 1852.

§ The naturalist interested in the further study of this subject will find abundant material at the N. Y. Aquarium. To the manager, Dr. H. Dörner, I am indebted for courtesies in preparing this article.

\* The inhabitants residing up in the sea-shore of both cold and warm countries, resort to bath in very extensively. The writer would be glad to hear from any one who has information bearing on the subject.

† Works of Avicenne. Baste, 1355.



against the face, water may be freely driven into the Eustachian tubes by way of the mouth and nostrils. Large quantities of water may thus be taken when the bather is struck by a breaker unexpectedly.

When the face is turned away to avoid the splash the meatus is apt to receive it.

Or the injury may consist in an irritation of the cutis lining the meatus, some persons being very susceptible in this way.

The presence of cold water long retained in the meatus, as in diving, will set up inflammation in the parts exposed, namely, the meatus and drum head, and in a great many instances the morbid action will extend to the tympanic cavity.

The effect of standing in the wind, after coming out of the water, and permitting the hair, ears, etc., to dry by evaporation, is also a frequent cause of aural inflammation.

Attacks of catarrh—colds—from the exposure of bathing are frequent, and inflammation of the middle ear may thus arise by extension through the Eustachian tubes from an inflamed throat.

Finally, a large number of cases are attacked through the entrance of water directly admitted into the Eustachian tubes through the mouth and nose. This latter has been so well described by Turnbull that I quote his own words.\*

"But a still greater evil is from sudden deglutition, during diving or swimming, by which—the mouth, nose, and pharynx being filled with cold water, and the mouths of the Eustachian tubes open—a portion of the water passes into the middle ear. This result . . . is most common in beginners, who suddenly, from cold or shock of the contact of the water, breathe or swallow in a sobbing manner."

Simply blowing the nose for the purpose of freeing the passages of water may drive a sufficient quantity into the middle ear to set up inflammation.† Many persons have headache, earache, and other unpleasant symptoms from diving, and never repeat the experiment.

It is rather remarkable that the custom should be found to exist of always first wetting the head. Diving is the most approved method when bathing, and beginners are always enjoined to observe this as serving to ward off all evil results.

The sensation of getting "water in the ears" is disagreeable to all bathers, and they lose no time in jumping on one leg with the ear held downwards until it is freed of water. Some persons find salt water painful in the ears, but can tolerate fresh water, as in rivers. The remarks above made apply more especially to salt- or cold water bathing.

The cold water of the sea is particularly obnoxious, on account of its comparatively uniform low temperature and the large quantity of chloride of sodium which it holds in solution, as it thus injures the ear by a direct cooling effect as well as by its highly-irritating character. The fresh water, however, of the great lakes is always very cold, and is almost as dangerous as sea-water.

The time occupied in out-door bathing is sometimes astonishingly protracted, children often remaining in the water for hours. Indeed, I have been informed by sons that they have played there most of the day and evening, diving much of the time.

Many persons do not consider their daily ablution complete until the entire head has been immersed, or, at least, the hair saturated.

To the toilet now is frequently added the mopping out of the canal with a portion of sponge attached to a handle, which accomplishes no other purpose than to pack the meatus with a humid mass of wax, soap, and epidemic scales.

From these causes arise not infrequently mild attacks of earache, which receive but little attention, or are aggravated by such domestic remedies as pouring oil, laudanum, liquors, etc., into the ear.

I have recently been interested in a class of performers who have amused the public by staying under water from one to two minutes, and eating and drinking during that time. These people, by practice, acquire the necessary composure to perform this feat easily twice a day. One young woman, aged nineteen, had performed for three years and never experienced any deafness, but failed in her general health. I examined a sister of the one just mentioned, aged seventeen years. She had followed the business for one year. From her I learned that the water into which she dove was made about 80° Fahrenheit. Sometimes when cold water had to be used she could not remain under very long, or could not hold her breath at all, on account of the sighing it occasioned. If she draws water up her nose it chokes her, and on coming out she has headache and feels heavy for a time, perhaps ten or fifteen minutes. After the admission of water into the nostrils she holds her head down and it runs out. A portion of the time she wore a pledget of cotton-wool in the ears. She never had any sensation in her ears. Her sister and others always wear the cotton-wool in their ears when diving. The general use of warm water, and the absence of excitement makes this performance quite safe, the only real danger being the admission of water into the Eustachian tubes. Like the use of the nasal douche, it may be harmless in a great many instances, but is, nevertheless, a dangerous practice.

But in a certain number of cases the exposures I have referred to lead to most serious consequences, in some instances life itself being threatened.

All parts of the ear are liable to suffer from the inflammation which may thus be kindled, and when the middle ear is its seat the brain is frequently attacked through some of the numerous channels which connect these parts.\*

The interval between the exposure in bathing and the first symptoms which indicate an inflammatory action to the patient, is from a few hours to a day, or possibly longer. I have the notes of a case where violent pain came on, and continued until seen by me, in five hours after "swallowing salt water." The manner in which the different portions of the ear are attacked, is well shown in the following table, condensed from the exhibit of cases at the end of this article:

TABLE SHOWING THE RESULTS OF SALT-WATER BATHING IN SIXTY-FIVE CASES.

| <i>Middle Ear.</i>               |       |  |    |
|----------------------------------|-------|--|----|
| Acute inflammation of middle ear | ..... |  | 10 |
| " " " " " purulent               | ..... |  | 13 |
| " " " " " with brain symptoms    | ..... |  | 3  |
| Subacute " " " "                 | ..... |  | 4  |
| <hr/>                            |       |  |    |
| <i>Drum-head.</i>                |       |  |    |
| Acute inflammation of drum-head  | ..... |  | 8  |
| Subacute " " " "                 | ..... |  | 1  |
| <hr/>                            |       |  |    |
|                                  |       |  | 9  |

\* Transactions of International Congress, Philadelphia, September, 1876.

† Buck, MED. RECORD, March 24, 1877.

\* J. Orne Green, Diseases of the Brain in its Relations to Inflammations of the Ear. Boston, 1877.

| Meatus.                       |  |  |  |    |
|-------------------------------|--|--|--|----|
| Acute inflammation of meatus. |  |  |  | 8  |
| " " " " and middle ear.       |  |  |  | 4  |
| " " " " drum-head.            |  |  |  | 13 |
| Subacute " " " "              |  |  |  | 1  |
|                               |  |  |  | 26 |
|                               |  |  |  | 65 |

From the above table it appears that the middle ear is the most frequently attacked portion of the organ, for in addition to the thirty cases enumerated under that head, in four instances the middle ear disease was a prominent complication of an acute inflammation of the meatus.

In thirteen cases the drum-head was involved with the meatus, and the existence of tinnitus indicated strongly that the middle ear did not fail to sympathize.

In the nine cases in which the drum-head was involved, there was doubtless also more or less disturbance in the middle ear, although myringitis was the striking feature.

It is almost impossible to conceive of the existence of an inflammation confined strictly to the drum-head, as it is anatomically so intimately connected with the middle ear, its mucous layer at least being affected in all cases.

Inflammation occurring in the meatus alone in eight instances, points to the fact that this channel is frequently the place of initial invasion. It will thus be seen that, in the great majority of cases, the middle ear is affected, and indeed our apprehensions of danger increase in proportion to the extent of its disease.

In three cases the inflammation passed out of the middle ear, and involved the meninges of the brain, and the cerebral symptoms for a time seemed to endanger life. These cases all recovered after protracted illness, but details of them would be out of place here. I have observed a number of cases where the naso-pharynx and Eustachian tubes were unmistakably affected by the irritating quality of cold salt water, but as deafness was not a symptom, they do not properly belong here. It is probable that a few of the cases reported as non-purulent inflammation of the middle ear, became purulent subsequent to their being recorded, as they made but few visits after relief was obtained.

When the middle ear is inflamed, the mastoid cells are also more or less affected in most cases, and the integument and deeper structures in the whole temporal region are liable to be embraced. When the meatus is inflamed, the auricle is often swollen and sensitive to the touch. Mastication and swallowing become painful when the meatus is inflamed, owing to the swelling of the glenoid fossa which receives the condyle of the lower jaw.

As may be supposed, the first symptom which alarms the patient when the attack affects the middle ear is pain, and usually it is most violent; sometimes it is accompanied by delirium. From the beginning, often even preceding the pain, there is an almost equally distressing symptom, namely, tinnitus. It is described by patients as resembling the roaring of a cataract, the wind, violent escape of steam, etc. Deafness is always more or less marked.

Dizziness is usual, and often the patient is unable to walk without support, as holding on to some article of furniture, etc. These symptoms of course vary greatly.

In some instances from the start there is a subacute action, which never proceeds to serious results, the only annoyance being tinnitus and deafness. The latter is

seldom absent, and does not depend altogether upon the violence of the disease. Patients are generally able to visit the physician, although their sufferings at night may be excessive.

Suppuration usually occurs in twenty-four hours, but there is, in acute cases, a collection of mucus in the middle ear, which, as it increases, distends the drum-head, and may not escape by bursting through that membrane for days.

The neuralgic pain ceases in most instances the moment the membrane gives way, or if perforated by the surgeon.

Although the inflammation may be confined to a small portion of the ear, the pain through sympathy affects the whole region, more or less.

In a certain number of cases, both ears are affected, perhaps one-fourth of the whole, although not always in the same degree, nor in any way sympathetically. Women are not so liable to attacks as men—they enter the water with their ears protected from dashing waves, are not divers to any extent, and do not bathe in salt water so frequently.

In the sixty-five cases which I have recorded, three only were females. The purulent discharge following an acute inflammation of the ear may continue for months or years if not arrested; it seldom ceases, under the most favorable circumstances, in less than three weeks.

Where the inflammation has not been severe beyond the meatus and drum-head, there is exfoliation of the epidermis covering these parts, which sometimes is cast off whole, resembling the finger of a glove in appearance. Where the entrance of water into the meatus loosens a plug of wax, it is apt to become impacted and produce the symptoms usual in that condition.

As regards the treatment of inflammation of the ear from these causes, it does not vary from that indicated in inflammation of the organ from other causes, and I shall therefore not dwell upon the subject here at length.

When fluid is pressing behind the drum-head, an early incision should be made in that membrane, for the evacuation of the contents of the tympanum.

Syringing the ear with hot water is nearly always grateful from the beginning of an attack; it relieves the congestion of the parts. Syringing is to be done gently, and repeated as often as is agreeable to the feelings of the patient. It should be continued during the treatment as long as secretions collect in the meatus, but with decreasing frequency as the suppuration lessens, a humid state of the parts being undesirable. The water used should be hot as can be borne by the patient.

After the active stage has passed, the ear may be dressed by placing a roll of absorbent cotton-wool in the meatus, either plain or medicated with some mild astringent, as borax, alum or tannic acid.\*

When the drum-head is imperforate, and the middle ear affected only in a slight degree, if the Eustachian tube be free, rarefaction of air in the meatus will often aid the escape of mucus towards the throat, and hasten recovery.

In nearly every case leeches should be applied to the ear affected, usually directly in front of the tragus, or in the concha, or below the lobule, where the ear joins the head. They cannot be applied too quickly, as they relieve pain, and in some instances aid in preventing suppuration. If there is much tenderness over the mastoid, a free and prompt incision must be considered.

\* For a description of the uses of medicated wool, see RECORD, March 2, 1878.



Abscesses in the meatus or in the neighborhood of the auricle are not infrequently met with, and should be incised early.

Any further details of treatment, together with the management of the accompanying deafness, would be beyond the scope of this article.

#### ADDENDUM.

##### FOUR CASES OF AURAL DISEASE FOLLOWING THE RUSSIAN BATH.

CASE I.—Dr. —, age 52.—*Acute inflammation of inner extremity of meatus, drum-head, and middle ear.*

On Jan. 10, 1877, took Russian bath, including the plunge into cold water, which entered both meatus. Second day had acute pain, stuffiness—tinnitus, with complete deafness in left ear. Did not fully recover until June 25th.

CASE II.—R. T., age 36.—*Acute inflammation of middle ear.*

On May 13, 1877, took Russian bath, including the plunge. On May 19th left ear pained very much. He did not sleep much, on account of the pain, for two weeks. The inner extremity of left meatus closed, and the epidermis exfoliating. Was only seen twice; at second visit was free of pain.

CASE III.—Dr. —, age 32.—*Subacute inflammation of drum-head and middle ear.*

June 25th, took Russian bath, including shower-bath and plunge. One week later had severe pain in the left ear. The meatus, drum-head, and middle ear were inflamed. The right ear slightly affected. Recovery in a few weeks.

CASE IV.—Mr. A. H. S., age 37.—*Impaction of wax producing acute inflammation of drum-head.*

Went in bath with the patient just described. Took shower and plunge after the vapor bath. On immersing his head had a feeling of uneasiness. Next day had decided pain in left ear, which kept him from sleeping. Pain was at times excruciating for the next three weeks. The impacted cerumen, which was found to be the cause of the irritation, was removed, and the membrane, against which it had been pressing, was highly injected and thickened. The right ear was filled with hardened wax. Recovery rapid.

None of these cases went on to suppuration, which is so characteristic of the inflammation following salt-water bathing.

CASE IV. was, of course, one which might have suffered at any moment from the loosening of the wax.

In the Russian bath the patient usually remains in vapor at the temperature of 115° F. for about half an hour, and then plunges into a cold bath.

I have never heard of any aural affection being induced by the Turkish bath, where the patient remains for half an hour or longer in a dry atmosphere, heated to 140° to 180°, and is then gradually cooled off. In the latter bath it is not so common a custom to take the cold plunge or swim.

*Conclusions.*—The ear is far oftener the seat of inflammation and resulting deafness from bathing than is generally supposed. Although its delicate parts occupy a deep situation in the skull, which is usually a protection from objects capable of injuring it, yet in any bathing which includes immersion of the head it is liable to be more or less damaged.

This damage consists in the admission of water to the ear, either through the external auditory canal, or the Eustachian tube.

When water finds admittance to the former, if cold or salt, inflammation of the meatus alone may result, or if violently injected, as in surf-bathing, or long retained in the canal from diving, the disease may affect the drum-head and middle ear.

Whenever water is forced from the mouth and nostrils into the middle ear through the Eustachian tube, inflammation of the middle ear is almost sure to occur, even though the water be warm. This has been frequently illustrated in a most painful manner by those who have been induced to use the popular nasal douche, inflammation of an acute purulent character having frequently been thus established, which has been dangerous to the life of the patient, and after a tedious recovery left great deafness behind.

Frequent exposures, especially in salt-water bathing, may be the cause of slight earaches, which are usually neglected as unimportant, but which are frequently the precursors of much deafness.

The fact that several thousand severe cases of aural disease thus result annually in New York City alone, should be a serious admonition to all who are concerned; and that three of the sixty-five cases here reported had dangerous cerebral complications should be a further warning.

That bathing is pleasant and healthful is of course admitted, but that it cannot be practised as at present without danger is undeniable. It has been shown here by a glance at natural history that amphibia, whose life is passed indifferently in either air or water, have naturally the means of protecting their auditory apparatus; but man is not so constructed, and therefore he cannot with safety practise diving or submerging the head.

He should never dive if he wishes to preserve his hearing.

When in the surf he should take the water upon his chest or back closing the mouth and nostrils, being careful to not present the ear to the incoming wave.

It is equally dangerous while swimming to receive dashing water into the mouth or nostrils. A firm pledget of cotton-wool in the ears is some protection. Drying the hair and body, and dressing quickly after the bath are, of course, necessary precautions.

The neglect to observe care in bathing is well illustrated by the four cases of aural disease, which I have presented here in the addendum as originating from the Russian bath, two of the attacks happening to physicians. This should point to the necessity of our always putting a patient, advised to use any kind of a bath, upon his guard as regards the danger to the ear.

TABULAR VIEW OF SIXTY-FIVE CASES OF AURAL DISEASES FROM SALT-WATER BATHING.

| No. | Age. | 1877.<br>Date. |                                                                                                             |
|-----|------|----------------|-------------------------------------------------------------------------------------------------------------|
| 1   | 29   | May 2          | Acute inflammation middle ear—at age of three years, and subsequently, had attacks of earache from bathing. |
| 2   | 16   | June 14        | Acute inflammation meatus and drum-head.                                                                    |
| 3   | 27   | " 28           | " " " " "                                                                                                   |
| 4   | 15   | " 29           | " " " " and middle ear.                                                                                     |
| 5   | 18   | July 6         | Subacute inflammation middle ear—left—the right middle ear affected by bathing 12 years ago.                |
| 6   | 16   | " 14           | Acute inflammation meatus and drum-head                                                                     |
| 7   | 17   | " "            | " " " " "                                                                                                   |
| 8   | 20   | " "            | " " " " "                                                                                                   |
| 9   | 16   | " "            | " " " " "                                                                                                   |
| 10  | 18   | " "            | " " " " "                                                                                                   |
| 11  | 17   | " "            | " purulent inflammation middle ear.                                                                         |
| 12  | 23   | " 16           | Subacute inflammation drum-head, much deafness and tinnitus.                                                |
| 13  | 16   | " 18           | Acute inflammation meatus and drum head.                                                                    |





called for by the nutritive activity of the epiphysis, renders this portion of the bone more liable than the apophysis to take on inflammatory changes, and the peculiar diathesis from which these patients suffer engenders a state of chronic congestion, which may, under unfavorable circumstances, degenerate into chronic inflammation, with the occurrence of a "regressive metamorphosis," that culminates in caries and the formation of degenerate pus.

In the diagnosis of these two affections, Dr. Shaffer lays stress upon the absence from chronic synovitis of the muscular atrophy, the reflex muscular spasm, and the osteitic cry, of chronic articular osteitis. In the early stages, before suppuration has set in, a temperature of 100.5° or over, will almost exclude chronic joint trouble.—*American Clinical Lectures*, Vol. III., No. VI.

**PARACENTESIS OF THE PERICARDIUM.**—Paracentesis of the pericardium is not an operation to be lightly undertaken, but the following accession to the list of successful cases will tend to bring it into greater favor. The case is reported by Prof. Pepper, of the University of Pennsylvania. The patient, a well-developed girl of 17 years, was taken on Sept. 2d with precordial pain, and soon developed all the symptoms of pericarditis with rapid effusion. On Sept. 9th, the respirations were 60, the pulse 145; precordial pain severe, and dyspnoea very alarming. The urine contained slight traces of albumen and a few fragmentary hyaline casts; no oedema of any part, save a slight puffiness about ankles. On the 10th and 11th she grew worse, and had several slight convulsive attacks. Late on the night of the 11th, the respirations were 80, pulse 160, extremities cold. Each paroxysm of dyspnoea seemed as if it would prove fatal, and it seemed clear that death would occur before morning. With the consent of the parents, paracentesis was now performed, Dieulafoy's aspirator being used. The puncture was made in the fifth intercostal space, about one inch inside of the line of the left nipple, and about eight ounces of a reddish serum withdrawn. This fluid contained a large proportion of albumen, some red blood-globules, and much pseudo-fibrin. The effect was magical; the pulse fell to 114, and became full and regular; the respirations fell to 40, and she became quiet and comfortable. From this time the cardiac symptoms improved slowly but steadily, and the uræmia yielded gradually to treatment.

This makes the forty-fourth reported case, about twenty of which have been successful, but it must be recollected that many of these were unfavorable subjects. Prof. Pepper is satisfied that the operation is justified, and even imperatively demanded under certain conditions. "Under no circumstances," he says, "has the operation, if properly performed, been productive of any injurious effects; even in the most hopelessly unfavorable cases it has afforded great relief." The primary indication for its performance is the existence of a liquid effusion in the pericardial sac, which has not yielded to a thorough employment of other modes of treatment, and which is causing such grave disturbances of circulation and respiration as to urgently threaten life. Even in less urgent cases, if the liquid be purulent, the operation should be had recourse to, and it cannot be done too early. Dieulafoy's aspirator is without doubt the best instrument to employ, and experiments upon the cadaver have shown that the point of normal apex beat is the point of election. In conclusion, he says this must be regarded as a comparatively simple and safe operation, when the indications for it exist, and he does

not believe that if the fluid collect again, it would more likely be purulent on account of its having been performed.—*The Medical News and Library*, March, 1878.

**TREATMENT OF FRACTURES OF THE SHAFT OF THE FEMUR.**—To muscular contraction has generally been attributed the shortening following fractures of the femur, but Dr. Bauer, of St. Louis, denies this as the prime factor, although an active element at the time of fracture, and whenever the muscles are directly irritated. Hamilton considers the lower fragment to be drawn under the upper one by muscular contraction, and that the proper treatment is by extension and counter-extension to overcome this muscular action. In direct opposition to these views, Bauer says: "We hold that the upper fragment is pushed over the lower by the simple bending of the trunk of the patient towards the injured extremity for the simple purpose of relieving himself from, and changing the irksome straight position." As a corollary to this he claims that the indication is, not to extend the limb, but to prevent the pushing down of the upper fragment, and this is best accomplished by means of a double inclined plane properly fitted and adapted to each individual case. The apparatus he recommends is of sheet-iron, properly shaped, and well padded with cotton batting. This has been used in a number of cases with good success, as fully established by measurement in the erect posture. To accomplish this the patient is placed erect on an even floor and a plumb-line suspended from the seventh spinous process of the cervical vertebra. If the limbs are of equal length, the line will be parallel with the spine and internatal groove. If, however, one extremity be shorter than its mate, the line will drop on the opposite side of the groove. By raising the shorter limb the groove and line may be made to coincide, and the thickness of the block required to effect this will be equal to the difference between the limbs.—*St. Louis Clinical Record*, March, 1878.

**GNORRHEAL EPIDIDYMITIS.**—Dr. F. J. Bumstead, in the *American Practitioner* for March, has given a résumé of the treatment of gonorrhœal epididymitis. His own treatment on the first appearance of swelled testicle consists of absolute rest in bed, the administration of a free cathartic, and a restricted diet; an opiate may be administered at night if necessary. The testicle should be well supported, and an evaporating lotion applied. At night the scrotum may be smeared with the following mixture: R. Ext. belladonnæ, 3 ij.; glycerine, 3 ss.; aquæ, 5 i. The scrotum should then be covered with a piece of lint moistened in the same. The immersion of the testicle in very hot water for ten to fifteen minutes, and then pouring upon it from a height a stream of cold water for five minutes, as recommended by Dr. Edwin Lloyd, is sometimes productive of very good effect. After the subsidence of the epididymitis, more or less fluid will, in the majority of cases, be detected in the sac of the tunica vaginalis; and here instant relief may be given, and further progress of the disease cut off, by the multiple punctures of the scrotum so highly recommended by Velpeau: "So great is my confidence in the effect of these incisions, that I do not hesitate to tell a patient that if he will submit to them he will be on his feet again in two or three days." The writer has never seen any ill effect from them, although Montanier reports a case in which simple incision into the tunica vaginalis was followed by excessive hemorrhage. Mr. J. L. Milton says: "The surgeon's first object is to arrest pain; with this the inflammation stops." He ac-



compleishes this with morphia, and applies externally the following lotion: B. Liq. ammon. acetatis, ℥i.; sp. ætheris, ℥iss.; mist. camph., ℥iijss. M. Prof. Marshall suggests the oleate of mercury with morphia. Dr. Ed. Warren injects into the tunica vaginalis one-sixth of a grain of morphia, and straps the testicle; internally he gives bromide of pot. grs. xx., tr. gel-semium sempervir. ℥ xv., fl. ext. ergot ℥i., in half an ounce of cinnamon-water every three hours. Drs. Piffard and Fox use pulsatilla, giving a drop of the "mother tincture" every one or two hours. The application of ice has been very highly recommended by M. Diday and others; the rule Dr. Bumstead follows is, if it does not afford relief within two hours, give it up and try some other plan. Poulticing is an old-fashioned mode of treatment, but is doubtless of service in some cases when the patient is unwilling to submit to puncture of the tunica vaginalis. Strapping the testicle is only applicable after the swelling and pain have subsided. This plan is much less used now than formerly, and, according to Cullerier has been entirely abandoned in France. Prof. Thiry, of Brussels, however, very strongly advocates this treatment; he uses it in the "*période de stade*," that is, when the inflammation has fully reached its height, not waiting for the decline of the symptoms. Dr. Marc Girard applies to the affected testicle lint soaked in a solution of nitrate of silver, one part to a hundred of water; in five cases treated in this way the pain ceased in about twenty-four hours, and the average length of treatment was six days. Its mode of action is unknown. M. Vidal revived Petit's operation, which consisted of an extension of Velpeau's incisions into the substance of the testicle. Vidal used this in over four hundred cases, and prefers it to any other method. But one puncture of this kind is made, the lancet entering the testicle to a depth of less than three-tenths of an inch. Mr. Henry Smith, of King's College Hospital, advocates the same treatment, and states that he has met "with results which have astonished himself and his numerous pupils." Prof. Boeck, of Christiania, injects a few drops of a solution of nitrate of silver into the prostatic urethra. Dr. Waterman, of Indianapolis, administers internally acetate of potassa with acetate of morphia, and applies locally a liniment composed of tr. iodinii, aq. ammoniæ, tr. opii, ol. olivæ, graduating the dose of morphia so as to secure full, but not excessive anodyne effects, and the proportions of iodine and ammonia so as to cause a half-blistering of the skin. The pain is said to cease, sometimes in three hours, and the effusion to be rapidly absorbed. Dr. Julian Alvarez relieves the pain in the course of one or two hours by the application of iodoform ointment. If the induration of the epididymis persists after the subsidence of the acute symptoms, the mercurial ointment, or ung. plumbi iodidi, or an ointment of iodoform, should be tried, and the iodide of potassium should be administered internally.

**WRITERS' CRAMP.**—In a paper read before the Royal Medical and Chirurgical Society, Dr. Poore gave an analysis of seventy-five cases of writers' cramp and impaired writing power. These cases fell naturally into six groups: 1. Paralytic (six cases). 2. Spasmodic (five cases). 3. Degenerative (nine cases). 4. Neuralgic, or neuritic (nineteen cases). 5. Writers' cramp (thirty-two). 6. Anomalous (four cases). The spasms which affect the hand, and which are particularly prone to follow attacks of hemiplegia, owe sometimes, there is good reason to believe, their character, if not their origin, to a faulty antagonism (due to a secondary paralysis or paresis) among the

muscles of the paralyzed limb. Although such spasms are usually attributed to disturbance of the gray matter, they might easily be due to a loss of equilibrium between the antagonistic muscles of a limb, especially when voluntary control is lessened by a lesion of the central ganglia. Loss of writing power is often the first and most prominent symptom of degenerative change occurring in the spinal cord or brain. The neuritic or neuralgic group is characterized by a painful and tender condition of the nerves of a limb, produced by overwork, or more frequently by injury combined with exposure to cold and a depressed state of the health. It is not always easy to distinguish these cases from true writers' cramp, but it is characteristic of the neuralgic group that—1. The symptoms involve a wider area; 2. The symptoms are sometimes induced without excessive exercise of any function; 3. Nerve-tenderness or neuralgia is a prominent symptom. In the group of true writers' cramp attention was directed—1. To the inferences which may be drawn from an inspection of the handwriting; 2. To the fact that the joints were found to be implicated no less than twenty-one times, the joint affection being rheumatic, neuropathic, gouty, or due to strained position; 3. To the fact that a difficulty in writing is not very infrequently hereditary, or developed very early in life; and that, 4. Any evidence of involvement of the nerve-centres is decidedly rare. The existence of a special co-ordinating centre for the controlling of the act of writing seems to the writer impossible, because—1. He had never seen a case of writers' cramp without peripheral evidence of change; and in the majority of cases there had been no evidence of any change other than peripheral. 2. If there be a co-ordinating centre for writing, it must be created, as it were, by education. 3. Writers' cramp is never suddenly established, as aphasia sometimes is. 4. It is almost certain that a peripheral lesion may cause all the symptoms of writers' cramp. The relative frequency of this, as compared with other professional ailments, is due to the fact that prolonged strain of the muscles which hold and steady the pen is inseparable from the act of writing.—*Medical Examiner*, Feb. 28th.

**HEART-CLOTS.**—The prognosis of heart-clots is usually considered to be necessarily and speedily fatal, but, from an analysis of three cases occurring in the practice of Dr. James, of Richmond, and in sixty-eight reported by others, Dr. James draws conclusions a little less gloomy, believing that cure may even sometimes result. One of his patients presented evidences of the existence of the clot a week before death, another two weeks, and a third for upwards of seven months. Turnbull and Lancereux mention cases lasting a month and upward. Thus the existence of a heart-clot is not in itself fatal, and there is a possibility of its breaking down and being swept off in the current of the blood, giving rise, perhaps, to embolism, infarction, etc., but these are conditions from which, under favorable circumstances, recovery may take place. The possibility of this is proved by cases reported by Clisholm, Tanner, Turnbull, McDonald, Anderson, and others. The clinical record of the treatment is not very bright; the most successful has been the free use of stimulants and anodynes. Among the stimulants the author considers ammonia to hold a front rank, but the effect of this drug upon the blood should be remembered. As a prophylaxis, the prevention of stasis of blood in the heart is of the greatest importance.—*Reprint from Transactions Medical Society of Virginia*.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE ABUSE OF MEDICAL CHARITIES.

THE recent report to the County Society of the Committee on the Abuse of Medical Charities brings up again for general discussion a subject which is always interesting to medical men. The report very properly takes the ground that there should be some discrimination made by the hospital and dispensary authorities between paupers and well-to-do patients; that some guarantee should be given to the profession for the faithful execution of such obligations. The certificate system promises a great deal in this direction, and its merits deserve a thorough canvassing. In a general way nothing can be more rational. The practical difficulties, however, are in the details which are necessary to make the plan effective.

Unless such a system can be carried out with an impartiality that is unquestioned it is liable to great abuses. In Great Britain, for instance, the issue of certificates has in some cases been as indiscriminate and as unwarrantable as the bestowal of medical charity in any of our college clinics, or in the admission of patients to the Out-door Departments of the New York or Bellevue Hospitals. In fact, not long ago, this certificate system was considered to fall so far short of its real object that the trustees of certain of the institutions affected by it advised its discontinuance. The latter was, of course, on the ground of an abuse rather than a use of its benefits.

It is well, however, to take such possibilities into account in advising reforms in our own systems. We can at least benefit so far by the experience of others who have gone before in guarding against errors that they committed, and which have led to the results as stated. There it is a common practice to issue tickets or certificates for treatment to persons who subscribe certain sums to the dispensaries. These tickets are, of course, not used directly by the subscribers, but are distributed to their friends, who receive free treatment ac-

cordingly. Not only are these certificates issued to improper persons, but the authorities have no more right to deny free treatment to the holders than has a bank to refuse the payment of its certified check. It has been stated that the larger number of these subscribers are tradesmen, who not only do not care to inquire into the real need of an applicant, but who actually use their tickets as an extra inducement for customers. It would appear, however, that with our present system of managing dispensaries this practice could be guarded against.

The other abuses do not amount to much, and can be so effectually overcome by care as to ordinary common-sense detail that no particular reference to them is desirable. The trouble will be not in the certificate system, but in its proper management. The latter can be accomplished by the material which is already at hand, all that is required being a unanimity of action, not only on the part of the managers of these institutions, but of the profession at large.

The Committee has expressed itself very emphatically against the general principle of indiscriminate charity, as practised by the Out Patient Department of the New York Hospital. There is not a gentleman in the profession who can offer the least possible objection to the stand taken. The question is not how many patients are treated in this manner, or how little profit is made from the practice, or how few undeserving ones apply, but what excuse is there for such a public violation of trust on the part of the managers with the profession, as is implied in the deliberate publication of the rules governing their Out-Patient Department? With mere corporations abuses are oftentimes winked at because there appears to be no remedy for them, but in the instance before us they are openly invoked, and not only is a premium placed upon fraud, but the young and plodding practitioner is cheated out of his daily bread. The institution advertises in a way that the young practitioner does not dare do, and with money that was given for charitable purposes only, offers to his legitimate patients inducements in the way of accommodations, appliances, and treatment, that are far beyond his means, and for a fee of a dollar per month. What is the result of all this? Independent of the cheapness of the arrangements, patients are very often induced to avail themselves of the services of such distinguished men, to the virtual neglect of their family attendants. In fact, the supposed extra value of the services is sufficient to quiet the conscience of most patients, regarding any particular obligations to their regular medical adviser. In the meantime the practitioner grows poorer and poorer, his patients leave him, and the annual report of the hospital managers states, concerning this Out-Patient Department, that the "increasing demands upon it by a respectable class of applicants, largely from the rural districts, is rapidly demonstrating its value." But as the whole matter is now fairly before

the Comitia Minora, we leave it there for the present.

We beg to remind the Committee that the question is not one with the managers of the New York Hospital merely, but with the managers of all the hospitals in the land; and as such, its solution will interest the whole profession. If we allow such a precedent to be established, all hopes for reform of ordinary and lesser abuses of medical charity will forever end.

The portion of the report of the Committee referring to gratuitous professional service in hospitals invites a word or two of comment. The Committee state that such a practice is unbusinesslike, and leads to professional poverty. At the risk of appearing to speak against the pecuniary interests of the profession generally, we take issue on these points. It is true that all persons connected with these institutions, from the steward to scrub-woman, receive pay for their services, but the surgeon or physician receives his compensation in another way, by increased opportunities for experience. Aside from this medical services are never grudged to the poor. This is so universally the rule that the recommendation of the Committee will be viewed by the majority of the profession as an absurdity. But we may have more to say on this particular point hereafter.

## Reports of Hospitals.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, March 13, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

DR. L. H. SAYRE exhibited an hemorrhoidal tumor which was removed by the Cerascur. The operation differed from the ordinary one in that the strangulation was made rapidly.

#### EXTIRPATION OF SUPERIOR MAXILLA.

DR. MASON presented the left superior maxilla, which he had removed by operation from a female aged thirty-four years, a patient in Roosevelt Hospital. Two years ago she suffered from an abscess in the vicinity of one of the molar teeth. In due time there was a spontaneous discharge of pus. Shortly after this a growth made its appearance in the neighborhood, but it did not increase rapidly, or give rise to any special pain, until two months ago. At the time of her admission to the hospital she was very much run down by excessive pain, which was confined to the left side of the face and to the region of the orbit. The vision of one eye was slightly impaired. The tumor filled the whole of the antrum, projecting internally into the nares and upward upon the orbit, causing the eye to bulge slightly forward, and also involving the outer surface of the alveolar process and the roof of the mouth. The incision was made by Fergusson's method, and the whole of the superior maxilla removed, leaving its periosteum intact. Tumor was examined by Dr. Delafield, and found to be a spindle-cell sarcoma. He alluded, in connection with this case, to a similar operation which he had performed upon a patient six years ago, with the result of a reproduction of the bone.

#### PELVIC CELLULITIS FOLLOWED BY INTERSTITIAL GASTRITIS AND HEPATITIS.

DR. LOOMIS exhibited the stomach, gall-bladder, pancreas, and small portions of the liver and peritoneum removed from a German lady, aged forty-three years, and the mother of three children. She first consulted Dr. L. in the fall of 1875, for dyspepsia, as she termed it, having been under treatment for that complaint for some time in Germany. She was rosy-checked, and altogether was the last person to be suspected of having any grave disease.

After careful and repeated examinations of her case at that time, a diagnosis was made of chronic interstitial gastritis and hepatitis. The reasons were that the area of the liver was diminished; that its surface, as far as it could be reached, was smooth; that the patient was of temperate habits, and that she had suffered after her last confinement with what appeared to have been pelvic cellulitis and peritonitis. Dr. L. had before his mind a case with a similar history, which he presented to the Society two years ago, and in which at the autopsy the lesions of the diseases referred to were found. In that case there was a marked thickening of the capsule of the liver, which condition was evidently the result of an old peritonitis, developed during the attack of pelvic cellulitis. Dr. L. also discovered a mass of hardened tissue in the epigastric region, but as this presented no definite outline, the idea of cancer was not entertained.

She visited Dr. L.'s office until the latter part of April, gradually losing ground and fading in color. She then complained of enlargement of the abdomen. This, on careful examination, was found to be due to tympanites merely. She then consulted a prominent gynecologist of this city, who stated that she had stricture of the rectum, that the distention of the abdomen was a consequence, and that an operation would relieve her. Finding that Dr. L. had charge of the case, he was invited in consultation. Dr. L. not agreeing in the diagnosis, and regarding the case as a hopeless one, resigned all connection with it, expressing the wish that she might be cured. About six weeks after the operation Dr. L. was invited to see her again. He found the abdomen more distended than ever, and that she was still losing flesh. The abdominal cavity was then one-half filled with fluid. She subsequently came under the care of Dr. L. again, and a consultation was held with a prominent physician, who agreed in the diagnosis originally made. The patient was tapped soon after, and about twelve quarts of clear fluid were drawn off. She then went to Saratoga, and was under the charge of Dr. Lente until the middle of August. While there she had a severe attack of diarrhœa, which so prostrated her that she was brought to the city on a mattress. She was tapped by Dr. Lente while in Saratoga, and when she returned to the city the operation was repeated by Dr. Drake. At that time she vomited almost everything that she took upon her stomach. After tapping her, Dr. Drake discovered a tumor just above the umbilicus, two inches in length and one inch in width. He was then of the opinion that the disease was cancer of the stomach. During Dr. Loomis's absence from town, there was another consultation, and the diagnosis was made of rum-drinker's liver; and soon after this still another consultation with a distinguished gynecologist, when the case was decided to be one of sarcoma of the uterus and intestine. From that time the patient gradually sank and failed, so that when Dr. L. returned from the country, she was a mere skeleton. She was tapped a few days after, and



for the first time some floccules of lymph were found in the fluid. She died on the 10th of November.

At the autopsy the lungs and heart were in a normal condition. There was a slight amount of fluid in the peritoneal cavity. The abdominal cavity contained three quarts of turbid fluid, and the peritoneum was thickened, presenting the ordinary appearances of chronic peritonitis. The small intestines were bound together by adhesions. The uterus was retroverted completely and enlarged, but contained no tumor. The rectum was not the seat of stricture, although there was thickening of the peritoneum and of the tissues about the rectum. The stomach was one-third its normal size, its walls being thick, firm, and almost cartilaginous. The pyloric orifice was much diminished in size, as was also the gall-bladder, the walls of which were thickened. The pancreas was adherent to the stomach, and through it to the liver, making a continuous map of thickened tissue. This was examined by Dr. Arnold, who failed to find any evidence of cancerous degeneration. The uterus was bound down by the same character of tissue-formation. In a word, the case was one of chronic peritonitis with chronic interstitial gastritis. The liver was also involved in the action, but to a less extent, its capsule being very much thickened, but the connective tissue of the organ not much increased.

In conclusion, Dr. Loomis again referred to the case presented by him two years ago. At that time Dr. Putnam-Jacobi stated that she had met with two such cases of interstitial gastritis, and in both instances they were antedated by attacks of pelvic cellulitis.

Dr. VAN GERSEN—Do you suppose that pelvic cellulitis was the direct cause of the subsequent disease?

Dr. LOOMIS—That is my supposition, although there are no means of proving it by the autopsy.

Dr. VAN GERSEN then referred to the case of a child aged thirteen years, in which there was a history somewhat similar to the one related, and in which Dr. Jacobi made a similar diagnosis, giving the opinion that the disease originated in pelvic cellulitis. The starting-point in that case, however, was a scrofulous diathesis, attended with marked enlargement of the glands. He did not see the termination of the case, but he recollected the diagnosis.

Dr. LOOMIS—There was no hereditary or acquired taint in this case. The point which interested me was the diagnosis; when the tapping was first performed, she was seen by some good men, who did not suspect any peritonitis. The question was, whether the peritonitis existed at that time or not.

Dr. JANEWAY stated that he had seen many cases of chronic peritonitis, the nature of which, either from pain or any other usual sign, was not suspected. One such had been tapped for ovarian dropsy.

Dr. PETERS remarked that simple thickening of the stomach was very rare. In 1844 such a case was reported to the Society, but very few had occurred since then.

#### PYELITIS—COLON AND PELVIS OF KIDNEY COMMUNICATING.

Dr. BRIDGE presented the kidneys, ureters, bladder, and prostatic urethra, with the following history:

They were taken from a young man who died at Trinity Infirmary, November 9, 1875. The history of the case, so far as I have been able to obtain it, has been taken from the records of St. Luke's Hospital, of which the patient was for a considerable time an inmate, and from a few oral notes furnished by those who had him in charge.

The history is a meagre one, and ante-mortem

seems not to have sufficed for a positive diagnosis, since different diagnoses were made as to the true nature of the disease which proved fatal; but the post-mortem specimen which I offer seems of sufficient interest, even without a history, to occupy the attention of the Society for a few moments. The history, so far as could be obtained, is as follows:

George H. Bohne, a German, *æt.* 18, single, was admitted September 25, 1874, to St. Luke's Hospital. Seven years previously he was kicked in the perineum by a schoolmate, but besides this was aware of no cause which might have originated the disease of which he died. Within a few days he noticed that he had to micturate more frequently than before the accident.

In 1872, five years later, he began by slow degrees to pass water still oftener, and occasionally tinged with blood. Since then this condition unchanged until he entered St. Luke's in 1874. At that time the urine would be clear for several days together, then it would contain blood and pus, and a few clots ragged in shape, and though two or three times longer one way than the other, still not moulded by the urethra. Micturition was not painful, but occurred on an average three times during the night, and much oftener in the daytime. The bladder was carefully examined for stone, but nothing found. The prostate gland was normal in size and contour. The urine on examination was found to be normal in quantity, loaded at times with urates, and contained albumen, but not more than could be accounted for by the amount of blood present. In the sediment were pus-corpuscles of very large size.

November 6, 1874, the patient was etherized and examined for stone; none was found, the meatus being narrow and slit up so as to admit No. XV. From this time until December 3d gallic acid and tincture ferri chlorid. were taken in large and frequent doses, without improvement. The attempt was made to define the point of origin of blood passed. The bladder was emptied, the first 3i. containing clots; the urine following was bloody, but free from clots. A flexible rubber catheter was introduced and the bladder washed; with such washing the water became clearer, but the last 3i. contained considerable blood. The bladder being finally washed moderately clean, the catheter was tied *in situ*. After fifteen minutes the urine was as bloody as ever. For four hours subsequently long clots were passed of the calibre of the catheter. During the two hours following this, 5 iij. of urine were passed nearly free from blood, but containing pus in moderate quantity. This examination seemed to point to the neck of the bladder as the source of the blood, which seemed to have clotted within the catheter pure. The clear urine passed excluded the kidneys as the origin of the hæmaturia. There was no history of seminal emissions.

December 10th.—Strictures were found at five and at one inch from meatus.

An examination was made by one of the staff of surgeons with the endoscope, and several reddish points or granulations were discovered in the prostatic portion of the urethra, which bled on being wiped with cotton.

During the winter a tumor began to develop in the left lumbar region (considered by some malignant, by others non-malignant).

October 6, 1875, the patient entered Trinity Infirmary. During the month preceding suffered from vomiting, which occurred from one to four hours after eating. No pain in tumor complained of.

October 30th.—Dr. Hockley drew off 3½ 3 of pus

from the tumor by aspiration. No febrile reactions occurred. The patient died November 9th.

At the autopsy about one quart of pus and cheesy matter was found in the left kidney. The descending colon was adherent to the tumor, and an opening from it into the sack of the kidney was found large enough to allow the passage of an ordinary lead-pencil. The patient had in life passed pus from the bowel.

No examination of other organs than those above mentioned was made.

CHRONIC ENDOCARDITIS (THICKENING AND RETRACTION OF AORTIC VALVES) TRICUSPID REGURGITATION—HYPERTROPHIC DILATATION OF HEART—HYDROTHORAX—COMPRESSED LUNG—BROWN INDURATION OF LUNG—RED ATROPHY OF LIVER—CHRONIC CONGESTION OF KIDNEYS.

Dr. BEVERLEY ROBINSON presented specimens with the following history: They were taken from the body of a woman, twenty-eight years of age, who died in Charity Hospital, March 4, 1878, and were given to me by Dr. E. A. Maxwell, one of the curators to the hospital. They appear to me of considerable interest, and for that reason I desire to show them to the members of the Pathological Society.

The following are a few data taken from the patient's history: She enjoyed good health until eight years ago, when she suffered from an attack of acute rheumatism. Dyspnea began three years since. Habits of intemperance nearly all her life. Has had swelling of feet, headache, and dizziness for a long time—as well as she remembers, about five years.

Two weeks previous to entrance into hospital (Dec. 12, 1877), had for first time an attack of severe pain in the chest, irradiating down the left arm. When patient entered hospital (Dec. 27, 1877), she was breathing with great difficulty, her face was cyanosed, her extremities cold; respiration, 60 in the minute; pulse, 120, very irregular and intermittent; subcrepitant râles were heard over both lungs; her heart was beating tumultuously, and no murmurs could be distinguished; albumen was found in the urine in moderate quantity.

A day or two after admission to the hospital, a cardiac murmur was heard at the apex and carried towards the axilla. A double murmur was heard at the base of heart, and a murmur was detected in the arteries of the neck. In the recorded history on the books of the hospital it is not mentioned at what sounds of the heart these murmurs severally occurred. There was a heaving impulse and *purring thrill* over the precordial region. Percussion showed increased cardiac dulness.

On Jan. 18th the pulse was found jerking in character, and a double murmur was found to the right of sternum over fourth intercostal space and conveyed to the right. It was supposed to be distinct from the murmurs previously mentioned. A few days later patient had epistaxis, spat blood, and complained of much pain in right side. Signs of pneumonic consolidation were discovered in right lung. Patient had several attacks of orthopnea whilst in the hospital, which were relieved by inhalations of nitrite of amyl. She died quietly on March 4th.

*Autopsy*, ten hours after death.—Body in condition of general anasarca. Both pleural cavities are filled with blood-stained fluid. No adhesions on either side.

*Lungs*.—Both show compression throughout, most marked at bases. There is also a moderate amount of brown induration in both lungs.

*Heart* weight, twenty ounces. By hydrostatic test there is free regurgitation at aortic orifice and slight

insufficiency of the tricuspid valve. Both ventricles are dilated. The walls of the left ventricle are notably thickened and of yellowish brown color. The free margins of mitral valve are slightly thickened, and the auricular surface is roughened. The endocardium of left ventricle shows patches of chronic endocarditis. The liver presents the appearance of red atrophy. Kidneys are in a condition of chronic congestion. The other organs are uninteresting. The above details are taken from a post-mortem record by Dr. E. A. Maxwell.

#### HOW IS THE PURRING THRILL PRODUCED?

In conclusion, Dr. Robinson asked concerning the explanation of the purring thrill in this case.

Dr. LOOMIS said that he had come to regard a purring thrill as indicating one of two conditions: either stenosis of the mitral orifice, or mitral regurgitation with marked dilatation of the left ventricle.

Dr. JANEWAY thought that there was either mitral stenosis or aortic regurgitation in these cases, but did not think it possible to have mitral regurgitation. The purring thrill in this instance, he thought, was explained by aortic regurgitation.

Dr. LOOMIS had met with it in mitral regurgitation simply, and thought it was due to the vibration of the cordæ tendineæ in the dilated cavity of the left ventricle.

Dr. JANEWAY could not understand why this should be so, it being contrary to his observation.

Dr. LOOMIS explained as follows:

As a result of regurgitation, the left auricle and the veins in the lungs become distended, and an abnormal quantity of blood is pressed into the left ventricle, causing dilatation of the left ventricle; then hypertrophy of ventricle takes place—just the same results as in aortic regurgitation. The only necessary condition was that, for the production of the thrill, there should be a vibration of cordæ tendineæ in the dilated cavity.

Dr. JANEWAY said that in cases of simple mitral regurgitation the rule was, according to his experience, that the left ventricle scarcely dilated at all, but that the right ventricular wall was hypertrophied.

Dr. LOOMIS asked if in mitral regurgitation it was not generally the rule to have hypertrophy and dilatation of the left ventricle.

Dr. JANEWAY answered, not to any extent.

Dr. LOOMIS said such was contrary to his experience.

Dr. JANEWAY repeated his belief that the purring thrill was either due to aortic regurgitation or mitral stenosis. Niemeyer considered the thrill almost pathognomonic of mitral stenosis.

Dr. ROBINSON asked if that condition could be diagnosed before death.

Dr. JANEWAY had succeeded several times.

Dr. LOOMIS asked if the purring thrill did not occur with the first sound.

Dr. JANEWAY had felt it presystolic.

In answer to a question, Dr. LOOMIS explained the cause of the thrill as a vibration of the cordæ tendineæ during contraction of the ventricle. He could not see how the thrill could be obtained without vibration, and how the vibration of the cordæ tendineæ could occur without dilatation of the left ventricle.

Dr. JANEWAY was convinced of the possibility of absence of mitral regurgitation in such cases by the results of autopsical examinations. He believed that the thrill could be produced in aortic regurgitation by two currents of blood meeting in the ventricle.



## REMARKABLE REPAIR AFTER EXSECTION OF HIP.

DR. SAYRE presented a specimen of remarkable repair after exsection of the hip, with a view of illustrating the value of the operation and the chances of improvement afterwards.

He saw the case first on the 22d July, 1875, when the child was two years and nine months old, but very small for her age. She had an immense abscess on the left hip, discharging freely, and the probe reached dead bone. The left limb was strongly adducted across the right thigh, and flexed at an angle of forty-five degrees with the pelvis. The abdomen was immensely distended and the liver enlarged. The child was thirty-three inches long. Was advised to be put in wire cuirass with slight extension, to keep out of doors, take cod-liver oil and iron, and if no improvement followed, to be exsected when the weather became cooler.

She was brought to Bellevue Hospital, Sept. 29, 1875, and the following history is copied from the records of Bellevue: Ward 12, Bellevue Hospital, September 29, 1875. Rosy Mullens, æt. 3, U. S. First suspicion of disease occurred to mother last November, on noticing her child standing mainly on the right leg, holding the left slightly bent. Some one said that the child fell and struck on the left hip, but mother knew nothing of it. After that, baby stayed in bed, or sat up, but did not walk. Swelling took place about the hip, but the mother was confined, and paid little attention to it.

In the latter part of January (1875), she called on a doctor, who lanced the swelling and let out pus and blood, since which time discharge has continued.

Child has grown thin, appetite failed, her back has gradually curved more and more, and her thigh adducted more strongly.

On day of admission (September 29, 1875), Dr. Sayre performed the operation of exsection of the hip-joint, according to his method, the child being anesthetized, in this case, by chloroform. He made a curved incision over the trochanter major of about two inches in length. The head of the bone, neck, and part of great trochanter and ligamentum teres had been absorbed, acetabulum perforated, and all that remained to be done was to pick out a few loose fragments of the bone, and saw off the upper end of the shaft of the femur just above trochanter minor. He then, with his finger, scraped off the lining membrane from the sinuses, filled the wound and sinuses with balsam of Peru, put in oakum tents, and placed the child in wire breeches, the dressing not to be removed for three days; child gets  $\mathbb{M}$  x. of "Loomis's tonic," t. i. d.

Oct. 1st.—Child has done well. A.M. P. 140, R. 32, T. 99½°; P.M. P. 125, R. 36, T. 99¾°. Wound dressed to-day. Oct. 2d.—A.M., P. 116, R. 36, T. 98¾°; P.M., P. 106, R. 46, T. 100°. Oct. 3d.—Wound discharging freely. Child is less irritable; appetite improved. A.M., P. 120, R. 40, T. 99°. Oct. 4th.—Temp. in evening normal. Oct. 5th.—Temp. in evening 101½°. Quinine, gr. iij., ordered. Oct. 9th.—Child has improved slowly. Temp. has not been elevated but once until to-night, when it was 102¼°. Ordered ʒi. ol. ricini, which operated before morning. Oct. 10th.—This night, child seemed to have some laryngeal trouble. Examination showed some bronchitis and considerable mucus in throat. Ordered warm fomentations to throat and chest, and gtt. x. each of paregoric and syr. scillæ. The next morning the child was found much better, yet it was thought best to

omit dressing it. Oct. 12th.—Quinine and iron stopped, and the following ordered t. i. d.:

B. Ammon. carbonat.....gr. iv.  
Spts. vini gallici.....ʒi.  
Syr. simple.....ad ʒij.  
M.

Oct. 13th.—P. 114, R. 42, T. 99°. Oct. 30th.—Pulse has continued to range from 120 to 140; most of the time was 136; occasionally as high as 154. Respirations from 40 to 60. Temp. from 98½° to 101°, being most of the time below 100°, once mounting up to 103°. The discharge is diminishing; the opening over trochanter is closed; the sinus, posteriorly, is still open; child's appetite has been good most of the time.

Dec. 13th.—Dr. Sayre's side extension splint was to-day applied before the class. The posterior sinuses still remain open, though but little pus is discharged when the child is dressed. In every way there has been improvement. Dec. 18th.—Patient able to sit up in a chair.

March 10, 1876.—Posterior sinus yet open, and discharge free. General condition has improved. No splint has been worn for the last ten days. The diseased limb is at least an inch longer than the other. Passive motion made every day.

May 19th.—An abscess deep down, about midway on the outer side of the thigh, was to-day opened by Dr. Sayre, and some ʒij. of ill-smelling pus evacuated. Pouliticed.

(This was probably due to the wound closing too soon, tent not having been sufficiently pressed in.—SAYRE.)

Since this date child has been in the hospital, and but little attention has been paid to it beyond dressing the wound. No splint is worn.

Nov. 1, 1877.—Patient to-day transferred to First Surgical Division, Ward 2. She remains in bed all the time; limbs slightly flexed and adducted. One sinus over left hip out of which some pus escapes. Complains of no pain. Passes urine and feces in bed.

March 1, 1878.—Child's condition about the same until the last few days. Abscesses have formed occasionally, and been opened. It is noticed that there are two prominences of the spinous processes; one in the upper dorsal region, very sharp, and one in the lumbar region. Child takes large quantities of milk. For the last few days her breathing has been rapid and labored. March 4th.—Child has steadily grown weaker, and this A.M., at 7.30, she died.

Autopsy.—Six hours after death, by Dr. Janeway, in presence of Drs. Sayre, Stephen Smith, and Wood. These measurements were made by Dr. Stephen Smith:

Length of body, 30 inches. Left lower extremity, 13 inches in length, from anterior superior spine of ilium to external malleolus. Right limb, 13½ inches long, between the same points. Length of both limbs from trochanter major to external malleolus, 13½ inches. Circumference of body over umbilicus, 40 inches; over false ribs, 20 inches. A sharp angular projection observed over third dorsal vertebra, and another not quite so prominent over the first lumbar. Over left hip exists the line of an incision, two inches in length, all healed except a minute opening at its upper part. A second cicatrix, 1½ inches long, on the outer surface of the shaft. Behind, a third incision, which is discharging, a drop or two of serum being squeezed out of it.

As body is placed on its back the left limb becomes straight, and slight movement at the hip is noticed.

Body is emaciated, face oedematous, belly markedly protuberant.

*On opening the abdomen* no ascites is found. Muscles of abdominal wall are flabby. *The liver* projected four inches below free border of ribs; slightly rounded at its right extremity, border sharp in the rest of its extent. Upper border extends to fourth rib. Is waxy, and weighs 2½ pounds (avoirdupois). *The spleen* projects downwards and towards the median line for two inches. Its upper extremity is curved on itself at right angles to the body of the spleen. Is firm, waxy, and weighs 3 ounces (avoirdupois). *On opening the thorax* the pericardium is found to contain a small quantity of serum.

*The right heart* is loaded with clotted blood; the left heart is contracted and nearly empty. The clots are soft and fibrinous, most elastic in the right ventricle; there are a few in the right auricle. The foramen ovale is closed. Valves normal. Weight of heart 3 ounces (avoirdupois). *The left pleura* is coated with recent fibrinous exudations; pleural cavity contains a small amount of serum. Calcareous matter is found in the pleura, and more escapes from the posterior border of the lung on section, being the result of an old abscess. Hepatization of the upper and back part of the left lung. *In right lung* apex is adherent. In it is found a cretaceous mass, one inch in diameter, with some cheesy matter. Rest of lung healthy.

*Left kidney* markedly waxy, especially in the pyramids. Interstitial changes beginning. *Right kidney* also waxy. Both enlarged. Weight of both, 5 ounces (avoirdupois). *Right supra renal capsule* contained a clot of blood. *Mesenteric glands* enlarged and cheesy. A cretaceous deposit in most of them. Slight waxy changes in *intestines*.

Spinal column, pelvis, and upper half of both femurs removed *en masse*.

*Left hip* covered by thick mass of fat. A transverse section of left hip made through joint. Upper end of femur found to rest in old acetabulum, and to be united to it by a mass of vascular and apparently fibrous tissue, which admits of considerable movement. A probe can be passed from the posterior sinus down to this mass. This is the only sinus left. No carious bone found.

Reporter S. R. Morrow, Jr., M.D., assistant.

After death Mr. Mason took the accompanying photographs by simply suspending her in a head-rest. It will be observed that the limbs are nearly normal in position, and they assumed this position by their own gravity, without any extension or traction being applied to them. The limb operated upon is in fact the straighter of the two, and not so much flexed at either knee or hip as the other. A sharp, angular projection is distinct over the third dorsal, and another, not so prominent, on the first lumbar vertebrae, and the enormous abdomen is markedly conspicuous.

Dr. BRIDGON referred to the case of a little child in the Presbyterian Hospital, who, for a long time after the operation of excision had been performed upon him, was in an almost hopeless condition. The operation had been performed as a last resort, waxy liver being present at the time. Since then the sinuses had been closing, the child had become ruddy, the legs well developed, and the liver decreased in size.

Dr. SAYRE asked Dr. Bridgon if he did not think the child would have escaped the waxy liver if the operation had been performed a year earlier.

Dr. BRIDGON replied that at such time the child had no hip disease.

Remarks were made by Drs. Mason and Janeway concerning the advisability of the operation; after which the Society went into Executive Session.

## Correspondence.

### HYPOPHOSPHITE OF ZINC.

A NEW REMEDY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—This salt has never, so far as I can learn, been used internally for medicinal purposes, and the object of this paper is to explain its peculiar advantages and to call professional attention to it.

The only combination of phosphorus and zinc heretofore used is the phosphide of zinc. The formula for this, as given in Soubeiran's work as recently revised by Regnault, is  $PZn_3$ . This shows it to consist of phosphorus and metallic zinc in the proportion of one part of the first to about six parts of the latter, and both unoxidized. As no oxygen enters into its combination, the phosphorus produces the same irritant effect in the stomach as if given in the free state, its irritant action being caused by its oxidation.

The ordinary dose of phosphide of zinc is one-tenth grain. This quantity cannot be largely increased. The proportion of zinc contained in this quantity is too infinitesimal to prove a very powerful nervous tonic, while the proportion of phosphorus is still less.

I therefore propose the use of hypophosphite of zinc. The formula for this is  $(ZnO, 6HIO, PO)(O=8)$ .

In this salt both the zinc and phosphorus are in a protoxidized state, in which condition the phosphorus is rendered non-irritant, admitting the use of such quantities as to fully meet all indications for either phosphorus or zinc. The salt being perfectly soluble, is at once assimilated, while both elements in the phosphide must be oxidized previous to assimilation. Its advantage in most nervous diseases over zinc oxide, zinc sulphate, etc., being that the very desirable effects of phosphorus in its best condition for assimilative action are also available by its use.

The condition of absolute purity is essential to this, as to all hypophosphite salts, for unless used in this condition their therapeutic effect is either very much impaired or wholly lost.

I recommend the use of the syrup, as the sugar is a most efficient preserver against atmospheric influence, and renders the preparation more palatable, though the salt has scarcely any taste, at first, a slight metallic after-taste being perceptible.

It is prepared in the form of syrup, eight grains of the salt to one fluid ounce, of which a teaspoonful (one grain) is the usual dose, and may probably be given in twice or thrice that quantity three times a day.

The salt used is purified and neutral. It has been therapeutically tested with very satisfactory results.

I am, respectfully,

ROBERT W. GARDNER.

170 WILLIAM STREET, NEW YORK.

### VAGINISMUS vs. INSANITY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Without discussing the pathology or determining whether hyperæsthesia of the female sexual organs ends always in vaginismus or not, I desire that the following report should go on record as showing the evil of a diagnosis so nearly fatal to the mental



welfare of the patient, as happened in the present case:

April 2, 1875.—Miss J., age 38. Nervous temperament. Began menstruating at 15, with previous good health. Until six years ago menstruation accompanied with slight pelvic pains directly preceding and during the first day of flow. From this date (1869) dysmenorrhœa greatly intensified and continuing throughout the catamenial flux, with more or less pelvic distress during the entire intermenstrual period.

Under the aggravated influence of her local symptoms Miss J., instead of her usually cheerful disposition, became alternately fretful and gloomy. Her melancholy being accompanied with frequent fits of weeping and a deep dislike for social intercourse and family conversation.

Familiar with the above symptoms, but without inquiry or examination of the pelvic organs, Miss J.'s "family physician" unhesitatingly diagnosed (?) her disease "a clear case of insanity," urging that the *poor lunatic* be immediately removed to an insane asylum.

It was during the preparatory arrangements for such removal that I learned so much of Miss J.'s history as above related, and suspicious of what the cause of her affection might be, I advised, and with the family approval, proceeded to make an examination of her case with the following results:

*First*—The patient unanesthetized. External organs of generation well developed and seemingly healthy. Attempting a digital exploration, however, the lightest touch induced such extreme pain as to throw the patient into a severe fit of nervous agitation, followed by prolonged shivering and an uncontrollable weeping.

Separating the labia, not the smallest aperture was discernible, nor could a uterine probe of the least calibre be passed into either the *rectum* or *vagina*, so firm, unyielding, and excessively distressful was the spasm of the sphincter-vaginæ and *rectal* muscles.

*Second*—The patient thoroughly chloroformed. With surprise to all present, the muscles completely relaxed, and a Sims large-size speculum freely entered a roomy and perfectly healthy vagina.

The cervix, like that of a virgin, small circular os, healthy, and free from all discharge. The uterus correctly placed, freely movable, and of normal size and consistency. Cavity closed, barely admitting the smallest probe, and measuring two and a quarter inches.

Advising an operation, and with a favorable prognosis, urged to complete it at once, I proceeded to dissect away the hymen, rupturing with my hands the fourchette, and widely distending the os uterine; introducing after the operation Sims's largest size hard-rubber dilator, directing that it be worn two hours at a time three times a day for three weeks, and for two weeks longer one hour every second day. With this treatment, and the frequent use of vaginal injections, my patient was discharged at the end of the fifth week, *cured*.

Miss J., visiting my office two weeks ago (thirty-two months after the operation), reports a regular and painless menstruation, freedom from all local trouble, general good health, and a gain of thirty-three pounds in weight since 1875, which, with the fact that I introduce, and enlarge without pain, Cuseco's speculum, adds not a little to the emphasis with which she declares herself "the happiest of mortals."

T. NAYLOR BRADFELD, M.D.

106 HALSEY STREET, NEWARK, N. J.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 21 to April 27, 1878.*

HEAD, J. F., Lieut.-Col. and Surgeon. Assigned to duty at Boston, Mass., as Attending Surgeon and Examiner of recruits, and, upon arrival there, to report by letter to the Com'd'g General, Div. of the Atlantic. S. O. 85, A. G. O., April 20, 1878.

HAMMOND, J. F., Lieut. Col. and Surgeon. Assigned to duty as Post Surgeon at Fort Adams, R. I., relieving Surgeon Campbell. S. O. 71, Dept. of the East, April 24, 1878.

CAMPBELL, J., Lieut.-Col. and Surgeon. Relieved from duty in Dept. of the East, and to report in person to the Com'd'g Officer, Dept. of the South, for duty as Medical Director of that Department, relieving Surgeon Head. S. O. 85, C. S., A. G. O.

ALEXANDER, R. H., Major and Surgeon. Having relinquished the unexpired portion of his leave of absence, to report in person to Com'd'g General, Dept. of the East, for assignment to duty. S. O. 58, C. S., A. G. O. And assigned to duty as Post Surgeon, at Fort Trumbull, Conn. S. O. 71, C. S., Dept. of the East.

LORING, L. Y., Capt. and Asst. Surgeon. Assigned to duty at St. Louis Barracks, Mo. S. O. 85, C. S., A. G. O.

BUELL, J. W., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Texas. S. O. 86, A. G. O., April 22, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 27, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| April 20, 1878... | 0             | 5              | 115            | 1                          | 130      | 68          | 0          |
| April 27, 1878... | 0             | 6              | 79             | 3                          | 64       | 49          | 1          |

ABUSE OF MEDICAL CHARITIES.—Copy of preambles and resolutions offered as portion of a report from the Committee on Abuses of Medical Charities to the New York County Medical Society:

*Whereas*, The dispensary and hospital service is provided for the pauper population of this city, but is shared by another class without proper limit; and

*Whereas*, Those arms of this service which maintain shelter, sustenance, and attendance for the out- and in-patient, from steward to scrub-woman, are paid for their labor; and

*Whereas*, There is now much actual suffering for the necessities of life in the ranks of the medical profession, which may be partly charged to the plan now common for the physician and surgeon to give gratuitously what is paid for in other departments; and

*Whereas*, The knowledge of these facts is exceedingly limited or persistently ignored in the body of the profession, and should be clearly and widely made known; therefore, be it

*Resolved*, That this New York County Medical Society, in the name and on the behalf of the entire profession,

call upon the proper bodies to enact, and the proper officials to faithfully execute, such laws and rules as shall discriminate against the giving relief to any except such as are examined and found to be absolutely without means to pay for such service, and that upon presenting a proper "certificate" duly issued by some person or persons to be designated.

*Resolved*, That from this date the practice of gratuitous professional serving in charitable institutions leads to professional poverty, is counted unbusiness-like, and is held as odious before the eyes of the fraternity, and that after the fourth day of July, 1878, it shall be considered as sufficient cause for disfellowship.

*Resolved*, That an address setting forth these abuses be prepared, printed, and circulated amongst the entire profession, City and State, at the expense of this County Medical Society.

GEO. H. MITCHELL, *Chairman*.

E. S. BATES, *Secretary*.

J. C. Peters, Pres. County Medical Society, and Committee on Ethics, etc., etc., F. H. Hamilton, D. B. St. J. Roosa, M. S. Buttles, A. S. Hunter, W. T. White.

**HARTFORD COUNTY MEDICAL SOCIETY, CONN.**—At the annual meeting of the Hartford County Medical Society Dr. W. A. M. Wainwright was elected President, and Dr. C. W. Chamberlain Clerk for the ensuing year.

**MEDICAL SOCIETY OF NEW JERSEY.**—The annual meeting of the Medical Society of New Jersey will be held in the Monmouth House, Spring Lake, on Tuesday, May 28th, at half-past seven P.M., and will continue in session the following day.

WM. PIERSON, JR., *Sec'y*.

**PRIZE OF ALUMNI ASSOCIATION OF COLLEGE OF PHYSICIANS AND SURGEONS.**—The Alumni Association of the College of Physicians and Surgeons in the City of New York offer for the following year a prize of five hundred dollars, open for competition to all alumni of the college. It will be awarded to the best *medical essay* submitted, if deemed sufficiently meritorious, upon any subject which the writer may select. The essay, in order to compete, must be based upon *original investigations*. Each essay must be marked with a device or motto, and accompanied by a sealed envelope similarly marked, containing the name and address of the author. Essays must be submitted to the Prize Committee on or before February 15, 1879. The committee consists of Drs. Henry B. Sands, Wm. H. Draper, and Frank E. Beckwith. Essays may be sent directly to any of the committee, or care of the Secretary of the college.

**MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.**—At a stated meeting held April 22, 1878, it was voted to grant certificates of membership to Drs. A. E. McDonald, R. A. Murray, C. Hitchcock, J. Hadden, G. L. Peabody, and E. S. Bates.

**FRIENDLY PROFESSIONAL VISITS.**—Mr. Liston was once asked by a patient to take part in a hunting excursion with the hounds in a northern county; he complied. His opinion was asked in regard to a certain case: he advised amputation of a limb, performed amputation in his usual masterly manner, and—was reminded, when he claimed his fee, he was regarded "merely as a friend." Liston said to us, "I will never again accept an invitation to be mounted 'as a friend.'" Ridcliffe tells us that on one occasion a miserly old merchant attempted to steal his opinion

with regard to his own case. "What shall I do?" said the patient to him. "Why, sir, I should advise you to take advice"—a very proper response to the would-be-pauper patient. The lawyers are shrewder than we are in those matters. Mr. Fazarkley was once asked by one of his hunting friends what he would do under certain circumstances. "I think," said he to the inquiry, "I should defend the action." The action was defended, and defendant mulcted in damages and costs. "I lost my cause," said his hunting friend to Mr. Fazarkley, "by acting upon your opinion." "I don't recollect it," said Fazarkley. The vanquished defendant thereupon replied, "You gave me that opinion when we were riding together to meet the Pytchley hounds." "Oh!" said Fazarkley, "that was my *travelling*, not my *professional* opinion." It is scarcely necessary, we think, to draw a moral from these facts.

**DR. MONTEFIORE J. MOSES** died at his home in this city on April 11, 1878, of Bright's disease. Dr. Moses was born in Charleston, South Carolina, July 20, 1841. His family removed to New York soon after, so that Dr. Moses' boyhood was passed in this city. In 1854 he returned to Charleston and studied medicine for two years. He entered the University Medical College of this city in 1856, and graduated in 1861, taking one of the Valentine Mott medals. At the breaking out of the rebellion he entered the Second Georgia Regiment and served for fifteen months as a private soldier. He afterwards served as surgeon of the regiment and as medical officer in a post hospital in Enterprise, Miss. Still later he was surgeon of the Thirty-seventh Mississippi Regiment until the close of the war. In 1863, he married Miss Jonas, of Columbus, Georgia. In 1869 he entered upon the practice of medicine in New York, where he remained until his death. Dr. Moses was a gentleman of exceedingly pleasing address and fine professional and scholarly attainments, as well as of the most exemplary character. He had acquired a large private practice, and had fully entered upon a successful and honorable career. His wife and three children survive him.

**THE LATE SETH SHOVE, M.D.**—At a regular meeting of the Croton Medical and Surgical Union held at Katonah, Westchester County, N. Y., April 2, 1878, the following resolutions were adopted:

*Whereas*, We have learned with profound sorrow of the death of Dr. Seth Shove; and

*Whereas*, It is our sad duty to testify to the great loss sustained by us in his death; and

*Whereas*, It is becoming and proper that we should bear public testimony to his excellence of character and to his high professional attainments; therefore, be it

*Resolved*, That in the death of Dr. Shove this Society, of which he was an honored and efficient member, has sustained a loss which is irreparable.

*Resolved*, That we bear witness to his superior talents, his cultivated mind, his kind heart, his sympathizing nature, and his high sense of professional honor.

*Resolved*, That in his varied learning, his ripe professional experience, and his wise counsels, we recognize the qualities that constitute the highest type of a physician and the best guarantees for the professional success which crowned his career.

*Resolved*, That we shall ever cherish his noble example as a man, his enviable reputation as a physician, and his endearing qualities as a friend.

*Resolved*, That we sympathize with his family in this their overwhelming sorrow.

*Resolved*, That a copy of these resolutions be sent to



the family of the deceased, and that it also be published in THE MEDICAL RECORD and the local papers.

J. Q. ADAMS, M.D., }  
J. H. SMITH, M.D., } *Committee.*  
L. F. PELTON, M.D., }

Dr. W. H. B. Post has retired from partnership with Dr. E. C. Mann in the management of the Sunnyside Medical Retreat at Washington Heights, N. Y.

AMERICAN MEDICAL COLLEGE ASSOCIATION.—At the recent meeting of the Tennessee State Society the following was unanimously adopted:

*Whereas*, An association has been formed looking to the advancement of medical education in the United States, and the establishment of a common policy among medical colleges in the more important matters of college management, under the name of the American Medical College Association; and

*Whereas*, Such Association has entered into articles of confederation to this end; and

*Whereas*, The action of said Association has been indorsed by the American Medical Association; therefore, be it

*Resolved*, That we congratulate the profession upon this step in the right direction in maintaining and elevating its honor and dignity, and cordially approve and indorse said action.

CRIMINAL NEGLIGENCE ON THE PART OF A DRUGGIST.—Another druggist has come to grief in France, this time in Paris. A bottle of syrup of buckthorn had been ordered for a girl aged fourteen years, but the pharmacist, M. Champion, gave instead of it a bottle of chloroform. A dose of this was administered to the patient, who almost immediately fell into a stupor, followed by delirium, and soon expired, after intense suffering. The autopsy showed that death was due to the absorption of the chloroform. At the trial the pharmacist put in the plea that the mistake was made by the messenger, who took the wrong bottle from the counter. This assertion was refuted, however, and a witness testified to the fact that the defendant had committed other mistakes, though fortunately they were of a less dangerous character. The trial ended in the conviction of the accused, who was condemned to pay a fine of 200 frs., and, in addition, 1,500 frs. damages to the mother of the victim.

TYPHUS IN ST. PETERSBURG.—An epidemic of typhus, which counts four hundred victims per week, is raging in St. Petersburg. The disease was brought from Armenia by the Turkish prisoners and the Russian soldiers. The sanitary condition of the Transcaucasus at the present time is exceedingly bad; Generals Chelkoviskow and Goubiski have already succumbed to the plague, and General Heimann is dangerously ill. It is claimed that this state of affairs is the fruit of gross negligence and disregard of hygienic rules in the army of the Caucasus.

POPULATION OF SAXONY.—Saxony, which is now proportionately as populous as Belgium, if not more so, is one of the countries of Europe in which the increase in population has been most rapid of late years. In 1834 the kingdom had 1,595,668 inhabitants, and in 1875 the number had increased to 2,760,586. The increase was due, in a large measure, to immigration, as Saxony has become one of the most active manufacturing countries in the universe. The greater part of the increase has been in the cities, the chief of which are Dresden, Leipzig, and Chemnitz. Dresden, in 1834, had 63,000 inhabitants; now, with its suburbs, it has 244,000. Leipzig, in 1834, had 45,900, and in 1875, 213,000. Chemnitz, in 1834, had 21,000, and in 1875, 114,000.

ALABAMA STATE MEDICAL CONVENTION.—The annual convention of this body was held at Eufaula, Alabama, April 11th and 12th.

PRURITUS VULVÆ.—Duhring, in his late work on skin affections, mentions most favorably camphor, chloral, and borax, variously combined:

R. Chloral..... grs. x to xxx.  
Water..... ʒ i.

Used as a lotion to the parts:

R. Boracis..... ʒ iv.  
Morphiæ sulphatis..... gr. viij.  
Glycerine..... ʒ ss.  
Aquæ..... ʒ viiss.

M.

These preparations, a little weakened, may be used by injection. For this purpose the following has been found highly efficacious:

R. Nitrate of alumina..... ʒ i.  
Aquæ..... ʒ i.

M.

As an ointment the following is strongly recommended:

R. Camphoræ,  
Chloralis hydratis..... ʒā ʒ i.  
Ungt. aquæ rosæ..... ʒ i.

M.

THE PHARMACEUTICAL ASSOCIATION OF GEORGIA met in Augusta, April 9th.

THE NATIONAL QUARANTINE BILL, which we recently took occasion to endorse, has now become a law. The Supervising Surgeon-General of the Marine Hospital Service is charged with its enforcement.

BROMIDROSIS.—A solution of common soda freely applied will often remove bromidrosis from the feet and axilla.

NITRO-MURIATIC ACID should always be prescribed by itself, otherwise explosions are liable to occur.

THERMO-CAUTERY AND ETHER.—When employing thermo-cautery, chloroform should be used as the anæsthetic instead of ether, the latter being liable to ignition and explosion.

LISTER'S METHOD, BURSTING OF A BOILER OF THE SPRAY APPARATUS.—Recently, at an operation in this city, the boiler of the spray apparatus exploded, and before the bystanders recovered their composure the bacteria seized their opportunity and entered the wound in force. No one was injured, and the fact that the wound is now healing by second intention is conclusive proof of the value of the antiseptic process properly carried out. The orifice of the safety-valve was found to be entirely free from bacterial deposits, and except for the fact that the valve itself would not work the apparatus was perfect.

ANTI-VACCINATION.—An Englishman has been fined on twenty-five different occasions for refusing to allow his child to be vaccinated. An English paper very properly indorses the action of the authorities, maintaining that toleration does not apply to the preparation of the soil for an epidemic of small-pox.

AMERICAN MEDICAL ASSOCIATION.—The twenty-ninth Annual Session will be held in the city of Buffalo, N. Y., on Tuesday, Wednesday, Thursday, and Friday, June 4, 5, 6, and 7, 1878, commencing on Tuesday at 11 A.M. "The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in

their respective State Societies, and from the Medical Department of the Army and Navy of the United States." "Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, Territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

THE LATE DR. NATHAN R. SMITH, OF BALTIMORE.—Prof. S. C. CLEW, M.D., of the University of Maryland, delivered a very interesting and scholarly address, commemorative of Prof. Smith, before the Alumni Association of the University, March 1, 1878.

PRIORITY OF THE METHOD OF SUSPENSION IN THE TREATMENT OF SPINAL DISEASES.—Dr. C. T. Hunter, of Philadelphia, sends the following note to Dr. L. A. Sayre, of this city. For the present, and perhaps until Hippocrates or Galen are heard from, a very important question of priority seems to be settled:

"MY DEAR DOCTOR:—When your son was here, two or three weeks ago, I told him that Dr. Ashhurst had found a reference to suspension of the body in spinal disease, and I promised to send it to you as soon as I should be able to find it. The book is entitled 'A Treatise of the Rickets: being a Disease common to Children, wherein (among many other things) is shewed: 1 the Essence, 2 the Causes, 3 the Signs, 4 the Remedies of the Disease.' By Francis Glisson, Georg. Bate, and Ahasuerus Rigmarter. Fellows of the College of Physicians, London. Printed by John Streater in 1668.

"I enclose a copy of the extract, as I don't think that you will be able to find the book in New York.

"*Extract from Glisson on Rickets, p. 363.* 'The artificial suspension of the Body is performed by the help of an Instrument cunningly made with Swathing-Bands, first crossing the Breast and coming under the armpits, then about the Head and under the Chin, and then receiving the Hands by two handles, so that it is a pleasure to see the Child hanging pendulous in the Air, and moved to and fro by the spectators. This kind of Exercise is thought to be many waies (ways) conducive in this Affect, for it helpeth to restore the Crooked Bones, to erect the bended Joynts, and to lengthen the short Stature of the Body. Moreover, it exciteth the vital Heat, and withall alureth a plentiful distribution of the Nourishment to the external and first affected parts; and in the meantime it is rather a pleasure than a trouble to the Child. Some, that the parts may the more be stretched, hang Leaden Shoes upon the Feet, and fasten weights to the Body, that the parts may the more easily be extended to an equal length. But this exercise is only proper for those that are strong.'

"This work on Rickets belongs to the Pennsylvania Hospital Library."

MONUMENT TO CLAUDE BERNARD.—A subscription is open in the Paris medical journals for a monument to Claude Bernard. As French physicians have not alone been enlightened by his discoveries, and as Americans are as largely indebted to him as any others, it would appear to be eminently proper that a subscription list should be started in this country.

THE NEW YORK OPHTHALMIC AND AURAL INSTITUTE treated during the last year 4,460 new patients, viz., 3,629 for diseases of the eye, and 831 for dis-

eases of the ear. As inmates, 308 patients were treated, receiving an aggregate maintenance of 7,210 days, showing a daily average of 19½ inmates. The number of more important operations was 397, among which 54 for primary cataract (51 successful), 46, iridectomies, 127, squint operations.

From the time when the institution was opened, in May, 1869, to the 31st of December, 1877, it treated 32,651 patients gratuitously in its dispensary, 2,513 in the house, and performed 3,484 operations.

As a *school of Ophthalmology and Otology*, the institution has annually given, during the last years, two regular and systematic courses of instruction in all branches of the above specialties.

The surgical staff consisted of Drs. H. Knapp, T. R. Pooley, E. Grüning, A. Alt, C. Williams, P. J. Dills, F. C. Valentine, R. O. Born, and Bettmann.

CASE OF BLOOD-POISONING BY RED STOCKINGS.—A peculiar case of blood-poisoning has recently been reported from Coburg. A woman, after receiving an injury on the shin, put on a pair of red woollen stockings, which came in direct contact with the wound. This rapidly assumed an unhealthy aspect, and symptoms of general blood-poisoning by the *aniline*, with which the stockings were colored, soon set in. The case terminated fatally ten days afterwards.

DEATH FROM CRIMINAL MALPRACTICE.—A railway signal-man in Stahnsdorf, Prussia, who enjoys the reputation of a great medicine-man, was recently called to attend a peasant woman for an ulcer. The treatment consisted in free incisions, as a result of which the patient was seized with tetanus, which terminated fatally. The operator was arrested, tried, and condemned to a year's imprisonment.

INFRANGIBLE GLASS.—Two instances of explosion of the so-called infrangible or flexible glass have recently been reported in Germany. In one case a tumbler made from this glass, which had been repeatedly filled with tea, suddenly broke into splinters with a violent explosion, while being raised to the mouth. The splinters flew all over the room, some of them striking the ceiling, and others cutting the hands and faces of persons sitting near.

In the other case, two of the flexible glasses had been bought in the afternoon, and to prove their infrangibility, repeatedly allowed to fall from the table to the floor. In the evening they were filled with beer and left on the table. About five minutes afterwards a sudden detonation as loud as a pistol shot was heard, and a thousand minute bits of glass flew over the table in every direction. Very few of the splinters were of any size. One of the two glasses had exploded while standing perfectly free and undisturbed on the table. On examination of the splinters it was found that the bottom of the glass in particular was broken into small square pieces, which had lost their usual solidity, and could easily be crumbled between the fingers. It was then remembered that the under part of the bottom of the broken glass had been remarkably rough and uneven, while the other glass was quite smooth. Numerous experiments were then made with this second glass; it was filled with different fluids, struck, allowed to fall, etc., but no explosion occurred. The cause of these dangerous explosions remains as yet enveloped in mystery. Whatever it may be, however, the above facts demonstrate the necessity of caution in the use of flexible glass, as an explosion during the act of drinking would be liable to cause serious injury to the face, and more particularly to the eyes.



## Original Lectures.

### LECTURE ON ABSCESS IN THE NEIGHBORHOOD OF THE ANUS AND RECTUM.

By W. H. VAN BUREN, M.D.,

PROFESSOR OF SURGERY IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Delivered at the College in the Spring Course, April, 1878.)

ABSCESS in the neighborhood of the rectum and anus is a very common affection, although it is often borne in silence, especially by women, through dislike of exposure and dread of the surgeon's knife. The practitioner who is familiar with the different phases of the disease has it in his power to prevent great inconvenience and suffering, and not unfrequently even to save life. Recognizing it by the description of characteristic symptoms, he can often say confidently to his patient, "Take a little ether and let me save you much trouble hereafter." There is no class of cases in which anesthesia adds so largely to our power as in the surgery of the rectum; and here, in this country, where it was first discovered, the duty would seem to devolve upon us to demonstrate its practical utility in everyday surgery, for abroad, and especially on the Continent, the tendency is very strong to continue in the beaten track, and reserve it for the greater operations.

I shall assume that you know something of the general pathology of abscess. Here, as elsewhere, it takes its origin in the alteration or actual death of a portion of tissue, possibly very minute, which thus becomes a source of irritation sufficient to provoke an effort for its elimination or floating out from the organism by pus formation. This necrosis or change in quality of tissue—the ultimate cause of every abscess not due to the presence of an actual foreign body introduced into the tissues from without—may originate in *local traumatism*, or in *failure of local textural nutrition from general causes*. Thus, in answer to the question why abscesses should form in this region, we find amongst clearly substantiated antecedents the following: Perforation, immediate or ulcerative, by hard substances which have been swallowed and afterwards actually found in abscesses near the rectum, *e.g.*, pins, needles, fish-bones, sharp fragments of chicken and other bones—the pelvis of a snipe, an apple core, etc.; abrasions caused by impacted and hardened feces, or by foreign bodies introduced through the anus, leading in some instances to perforating ulcer; violent stretching of the parts in forced efforts at defecation; contusions, as from kicks, or riding on horseback; mechanical or chemical irritation by contact of substances used for cleanliness, by scratching to relieve pruritus or eczema, or by the contact of strong perspiration after much walking, or of acrid secretions from the vagina; strangulated or irritated hemorrhoids; the presence of stricture or cancer of the gut—of which the formation of abscess in the neighborhood is not an unfrequent complication; local chilling, as by sitting on a cold stone or a wet seat; finally, the tubercular diathesis, and also, in persons of good constitution, a temporarily vitiated condition of the blood and consequent depression of the vital powers.

We must not lose sight of the facts that chronic abscess of remote origin in necrosis of bone, and psoas abscess, sometimes gravitate to this region and point near the anus, and that the vicinity of an enlarged prostate, or a diseased bladder or seminal vesicles,

may cause perineal abscess, and encroach upon the rectum. I have punctured an abscess seated between the prostatic urethra and rectum and projecting into the latter—to relieve retention of urine; and Gooch relates the case of an old gentleman long subject to gravel who, after a perineal abscess and much subsequent complaint of pain at the anus, was found, on examination (which had been unwisely deferred), with a urinary calculus of a slender, tapering shape, and over an inch long, projecting more than a third of its length into the rectum. Its removal was followed by cure. (*Chirurg. Works*, London, 1792, vol. iii., p. 216.)

I am disposed to emphasize the subject of etiology, because the more thoroughly we grasp the causes of disease the greater the chances of success by hygienic and preventive measures, and the more direct and rational our treatment.

Before describing any of the various forms in which we encounter them in practice, it is important to observe that *all abscesses near the lower end of the rectum have certain characteristic features in common, viz.:*

1. They can be rarely made to abort, going on almost inevitably to suppuration.
2. They do not heal readily, but as a rule tend to degenerate into chronic sinuses and fistulæ.
3. The pus which they discharge is offensive in odor, in consequence of the exosmosis of gases from the bowel.

From what I have said thus far you will already understand, I think, why it is a received rule of surgical practice that *these abscesses should always be opened, and opened early*, even without waiting for unequivocal evidences of fluctuation. It is another good rule, to be mentioned in this connection, that *all incisions for this purpose should radiate from the anus as a centre*; we thus avoid cutting across the general course of blood-vessels, and we escape, also, possible bad effects of subsequent contraction in healing.

Abscesses in this region vary in situation as well as in size, and they vary widely in gravity, as we shall see.

Often a little round lump will form just at the verge of the orifice of the anus, taking its origin from a hard stool, or an external pile, or the chafing of the napkin of a menstruating woman. It becomes hot, and exquisitely painful. This is, naturally, one of the most sensitive spots in the body; the sphincter is provoked to spasmodic contraction by the presence of the painful little tumor, which is therefore constantly pinched, and for four or five days, or until it bursts, life is a burden.

If abortion cannot be effected in twenty-four hours by a pig's bladder partially filled with ice and moulded accurately to the part, then the tumor should be freely incised. Freezing with ice or ether-spray might replace general anesthesia. Afterward a piece of fine sponge, cut to fit the part and moistened with laudanum or comp. tinct. benzoin, may be kept in contact with it. These little anal abscesses, which, like those of the eyelids (*hordeoli*), often originate in glandular follicles, cause an amount of pain out of all proportion to their size. They occur more frequently before middle life, and in some individuals show a tendency to habitual recurrence. The regular use of an astringent or alcoholic lotion to harden the skin is often of service in such cases. One form of this marginal abscess undoubtedly takes its source in a little varicose venous pouch—one of the varieties of origin of the external hemorrhoid; this, when left to itself, is likely to leave behind it a minute "blind external

fistula," often associated with a little flap of shrivelled integument.

A *painless* variety of marginal abscess sometimes forms insidiously, generally in a delicate, perhaps phthisical subject; it may discharge itself and leave a little fistula without its existence having been suspected. This is more of the nature of what is known as the "dermoid" abscess, and it requires decided local stimulants to make it heal after incision.

Where the focus of pus formation is situated farther from the verge of the anus and beyond the grip of the sphincter, the pain, even of the acutest grade of abscess, although from its greater size very considerable, is not so constant and intolerable as in the first variety. There is more or less extensive redness of the skin, followed by central softening, and accompanied by febrile reaction. Entire rest, narcotic and sedative poultices, with early and free opening, are the remedies. Such a case, if not promptly met, might linger a fortnight or longer. One of its prominent difficulties is to provide for defecation without great temporary increase of pain. It is better that this should be done daily, or every other day, than to run the risk of faecal accumulation and its consequences, which might interfere with subsequent prompt repair. The best means to use for this purpose are a moderate dose of some mild, reliable laxative, such as castor oil, sulphur and cream of tartar, or fluid extract buckthorn, assisted at the right moment by an enema of warm water and sweet oil.

The introduction of the nozzle of the injecting tube is not painful under these circumstances, if rightly managed, and it is usually wise to overrule the objections of a patient who has no experience of this remedy. The obstruction to the local circulation from a loaded rectum constitutes a positive aggravation of the malady.

This is the more common form of acute abscess near the anus. When left to itself the complete relief from pain which follows spontaneous discharge leads the patient to dismiss the trouble from his mind and consider himself cured. It is only some weeks later that the fact forces itself upon his attention, in consequence of finding his clothing more or less constantly soiled by a watery and perhaps offensive discharge, that a fistula has formed.

It happens, occasionally, that a collection of pus forms outside of the rectum, in most cases just on a level with the upper limit of the sphincter, and, failing to reach the surface externally, and in most cases causing no very urgent pain, finally discharges itself into the bowel, so that the patient, after voiding some matter at stool, finds himself relieved. It is in this manner that what is called the "blind internal fistula" forms—a variety of fistula which is not very common. The relief, however, in a case like this, is not usually permanent; a hard lump remains somewhere on the buttock, near the anus, and continues somewhat tender on external pressure; sooner or later it becomes the seat of another abscess, which may break externally, and thus the complete process of repair failing, the "blind internal fistula" is converted into a "complete fistula."

In both this and the last variety of abscess the exciting cause is undoubtedly, in most instances, a perforating ulcer at the bottom of one of the lacunæ of the rectum, which are situated just above the external sphincter, the ulceration having been provoked by the lodgment in the little pocket of some source of irritation derived from the passing feces. Hence an explanation of the fact that when a complete fistula follows one of these abscesses its communication with the

bowel is found most frequently just above the upper limit of the external sphincter. Not rarely the starting-point of the abscess is in the substance of this muscle, so that the resulting fistula actually traverses the muscular mass. When the abscess extends entirely outside of the sphincter muscle, it then occupies the ischio-rectal fossa, and, in the loose connective tissue and fat of this region provided to accommodate the varying bulk of the rectal pouch, finds room for rapid development.

It is a much more grave form of rectal abscess, that which takes its origin, at first, deep in the ischio-rectal fossa. It is caused in some cases, doubtless, by ulcerative perforation of the rectal pouch; in others as a direct result of constitutional dyscrasia. The progress of these cases is often slow, insidious, and depressing, because the pus tends to travel inwards—in the direction of least resistance rather than towards the surface. The dense integument and subcutaneous cushion of the buttock become thickened and brawny, often over a considerable extent of surface. There is not, necessarily, any very urgent pain or throbbing; but fever is present, and frequently there are evidences of septicæmic depression. When the surgeon is not familiar with these cases, and waits for evidences of fluctuation before interfering, extensive destruction of pelvic connective tissue may occur, involving danger to life. A finger in the rectum will recognize increased heat and an œdematous, doughy feel. The indications are those of phlegmonous erysipelas; the surgeon should make an early and free opening with the knife through the integument, and follow it with his finger, so as to secure a direct and sufficient outlet—not only for pus, but for sloughy debris. This affords the only assurance of safety. When it is neglected there is liable to be extensive surface ulceration and sloughing, with an amount of destruction of pelvic connective tissue around the lower end of the gut, which is often irreparable; and where the patient does recover he is liable to permanent disability.

I was consulted recently by a healthy-looking Western gentleman, in middle life, who was about to marry a second time, for occasional inability to prevent escape of flatus from the anus, and when his bowels were loose he was also liable to incontinence of feces. He had been operated upon twenty years before for fistula, but through his own neglect the disease was not cured. Other abscesses followed, one of which was very severe and extensive, and it left, after long convalescence, several new fistulous tracts. These were subsequently laid open at different operations, and all healed soundly. On examination I found the anal orifice retracted much more deeply between the nates than usual; indeed, vigorous pulling asunder of the buttocks was required to bring it into view. It was formed posteriorly by a dense cicatrix, and a slight protrusion of mucous membrane presented. There was no grip to the sphincter, which had evidently been seriously damaged. There had been also, pretty certainly, extensive loss of substance of the pelvic connective tissue around the lower end of the rectum, and powerful contraction of the granulation tissue during repair. The excessive retraction of the anus was also in part due to the constant use of the *levatores* in efforts to aid the weakened sphincter in retaining the contents of the bowel. The parts presented the appearance which might have followed entire removal of two inches of the lower end of the rectum, including the anus. Recognizing no prospect of benefit from operative interference, I advised palliative measures, amongst others the wearing of a small plug of prepared oakum moulded to the part.



The result of another case which I saw some years ago was even less favorable.

A gentleman of 47, of good constitution, but sedentary, luxurious, and self-indulgent in his habits, developed a deep ischio-rectal abscess without any obvious cause. The symptoms were serious and the surface induration excessive. His usual attendant, who watched the patient assiduously, discovered some soft, imperfectly fluctuating points towards the end of the third week, and made small punctures. Ulceration and sloughing followed, and when I saw the case later there was a gap several inches deep extending pretty much from the coccyx to the base of the scrotum, and this was being dressed in daily with lint. The granulations were feeble, and the patient's vitality very much depressed. Syringing with aromatic wine and painting with balsam Peru and comp. tinct. of benzoin were substituted for the lint dressing, and a general supporting treatment adopted. Under this course the patient gained, but very slowly, and declining the advice to take a sea voyage as offering the best chance to stimulate his flagging powers of repair, went to the country at the end of six weeks to avoid the summer heats, where some months later I saw a notice of his death—from exhaustion. In this case I formed the opinion, in consequence of the utter lack of vital force of the patient, that a depraved condition of the blood, and, in fact, of the whole organism, from a long-continued, faulty mode of living, was the cause of his attack, and I feel confident that this form of abscess comes often in a similar way.

There is, plainly, a wide interval between the little, round, painful abscess of the margin of the anus and the grave forms of disease just described, and in practice we encounter many varieties of abscess intermediate with these which I have brought forward as typical examples; but it is worthy of being always borne in mind that the same rule of treatment is imperative in all abscesses near the anus or rectum, viz., to open early and freely, with the double object of shortening the period of pain and tissue destruction, and of securing a cure, if possible, without fistula.

Troublesome bleeding from opening these abscesses rarely occurs. Pressure applied in the usual method, by compresses and a T bandage, or strips of adhesive plaster, is always available, but I prefer the sub-sulphate of iron—used either in solution, or as a dry powder. I have found this substance entirely efficient as a hæmostatic, and it makes a good dressing—possessing no irritating or escharotic properties, but, on the contrary, being an excellent disinfectant, and a salutary local stimulant. It forms a scab under which healing goes on without pus formation. I have filled the cavity of an abscess with the dry powder, blowing it in through a tube, after the manner recommended by Marcus Aurelius Severinus for his famous “catagmatic powder,” with excellent effect. There is no reason, therefore, why the abscess should not be opened so freely as to render any subsequent retention of pus impossible, and this is the condition on which prompt healing and escape from the formation of a fistula depend. I have little doubt, after the results I have seen from the antiseptic method, that if it were faithfully used in opening and dressing these abscesses, and accurate drainage secured by means of caoutchouc tubes or horse-hair, healing without fistula would be the rule, instead of the rare exception, as at present. The striking success of Volkmann, as set forth in his recently published operations upon the rectum, certainly justifies this hope. But even with the aid of antiseptics in insuring prompt repair, early and free opening cannot be dispensed with.

There is a variety of abscess properly mentioned here which constitutes an exception to the rule I have just laid down, and our knowledge of it is both recent and valuable. The cavity beside the rectum, familiarly known as the *ischio-rectal fossa*, was first accurately described, and this name given to it, by Velpeau, in 1829. In 1856 Richet first pointed out and described formally a region lying beside the rectum, but *above* the ischio-rectal fossa, and separated from it by the levator ani muscle and the fasciæ which line its surfaces. This musculo-membranous diaphragm forms at the same time the roof of the old fossa and the floor of the newly-described space which, in fact, lies between it and the parietal aspect of the peritoneum as the latter is reflected from the walls of the pelvis over the rectum and bladder. In the loose connective tissue which occupies this “superior *pelvi-rectal space*,” as Richet has named it, abscess occasionally forms.\*

The symptoms which accompany the formation of an abscess in this region are obscure, and its progress slow, in consequence of the difficulty with which the pus finds an outlet. The musculo-membranous layer of the levator is not easy to penetrate. Ultimately the pus discharges, either by ulcerating into the rectum—high up, of course—or by working backwards through a partial opening which exists normally in the median line near the sacrum. It now escapes from the pelvis through the upper sacro-sciatic opening, or gravitates downwards beside the rectum, and points externally near the anus, constituting a variety of fistula which requires a special treatment for its cure, and this we shall consider hereafter. The route by which the pus of an abscess of the upper pelvi-rectal space escapes is the same which is followed by an abscess taking its origin near the vertebral bodies, when it makes an opening near the anus, simulating fistula in ano.

These, then, are examples of varieties belonging to our category of abscesses near the anus and rectum, which we cannot open early, simply because they cannot be reached, even if accurately diagnosticated. I could not have covered the subject of the present lecture without mentioning them, nor could I have completed the etiology of fistula—as far as fistula takes its origin in abscess—which I also had in view.

Some years ago I watched with much interest the case of an eminent lawyer, who ultimately died exhausted from the effects of what I afterwards recognized as an abscess of the upper pelvi-rectal space. He was of delicate constitution, but not manifestly tubercular. The disease appeared at 55, after failure of the general health. Pus presented at the sacro-sciatic foramen, where I gave it vent, and the sinus, which communicated with the interior of the pelvis, never healed. Another abscess formed later on the buttock. The functions of the pelvic viscera were not seriously deranged. There was no evidence of diseased bone.

What are the chances of cure, without fistula, of abscesses near the rectum or anus? Allingham's table (*Disease of Rectum*, London, 1873, p. 19) of 4,000 consecutive cases of rectal disease observed at St. Mark's Hospital (out-patients) includes 196 abscesses, with the remark added that “of these 151 became fistulæ, and the rest were probably cured.” This would give nearly twenty-three per cent., or about one in four, which I should consider somewhat too favorable a prognosis. It remains for us to improve the chances of cure by our methods of treatment, and the points I have sought to make look to this end. The

\* *Anatomic Méd. Chirurg.*, Paris, 1873, 4th ed., p. 42

following case, which illustrates still another variety of abscess, is of interest in this connection :

A lady of 28, of good constitution and well nourished, under treatment for a syphilitic taint communicated by her husband, rather suddenly failed in health, and soon after became conscious of pain and swelling near the anus. When I saw her there was a flat, fluctuating tumor, as large as a pullet's egg, extending from the left buttock to the anus. The pus was evidently just beneath the skin, but there was no redness at any point. It was opened freely, giving vent to a quantity of dark-colored and very fetid matter. Under quinine and wine this abscess healed entirely within six weeks, without any local treatment beyond a poultice, leaving no fistula. I verified the cure by subsequent examination, for I had told her, before opening the abscess, as I always do, that it would probably not heal without another operation, and she was, therefore, suspicious. Three years afterwards this patient had another abscess of the same character, but on the opposite side of the anus, which was treated in the same way, and it also got well within the month. I have examined this lady since, and found the cure perfect.

We shall next take up the subject of fistula.

## Original Communications.

### VESICULAR ERUPTION INDUCED BY THE INGESTION OF CANNABIS INDICA.

By JAMES NEVINS HYDE, M.D.,

CHICAGO, ILL.

No attempt has been made to furnish all the details in the early history of the case subjoined, since they throw no special light upon the lesions to which it is designed to direct attention. Full notes of this history are, however, in my possession, and from these I merely select for reproduction the salient points, which will enable the reader to verify the statement made respecting the fact of syphilis.

On the 12th of January, 1874, I was consulted by Mr. F., an intelligent gentleman, aged twenty-four years, of nervo-bilious temperament, well-developed in frame, and free from venereal antecedents other than those here noted. He stated that a gland had enlarged in his left groin in August, 1873, and that, in three weeks thereafter, a sore appeared on the left side of the glans penis, which speedily healed under the treatment of a physician, who decided that it was not of a syphilitic character. Cataplasms were applied to the inguinal swelling, and in ten weeks an incision was made without giving exit to pus. Later, poultices having been continuously applied, a serous discharge escaped from the opening. In November, adenopathy of the right side ensued, notwithstanding which he proceeded, by the advice of his physician, to fulfil a marriage engagement. On his way to New York, where the ceremony was performed, a second sore appeared on the right side of the frenum. This had been twice cauterized with carbo-sulphuric paste, but had rapidly enlarged. He stated that sexual intercourse with his bride had not been effected.

I found upon the corona glandis and adjacent sulcus an ulcer as large as a quarter of a dollar, with an irritable, reddish-gray, granulating and hemorrhagic

floor, surmounting an engorged and indurated tissue-mass as large as a chestnut. There was cervical, epitracheal, and double inguinal adenopathy, serum exuding from an incision in the left groin, sallow complexion, nausea, cephalalgia, and peri-articular pain. He was cautioned as to the danger of infecting his wife in intercourse, and placed upon appropriate treatment.

On the 25th of the same month, I was summoned to his residence, where I found him in a condition of great nervous prostration and anxiety, induced by the fear that he had infected his wife. He then stated that, though he had truly informed me that intercourse had not been effected, still there had been, on several occasions before my first examination, contact of the sexual organs without penetration. On the internal face of the left labium majus of the wife I found a single ham-colored, split-pea sized macule, which in two days was transformed into a clean-cut ulcer of corresponding size. Multiple adenopathy of the groins followed.

The subsequent syphilitic history of these two patients may be briefly summarized. The husband was soon extensively covered with a symmetrical macular syphilide, out of which papular lesions speedily developed, of similar distribution and persistent type, affecting the face, chest, abdomen, and extremities. The glazed, copper-colored papules of the forehead, constituting the well-known *corona veneris*, proved to be in this case especially annoying, resisting for a long time general and topical treatment. During the years which succeeded, no further eruption was displayed, though numerous gummy tumors of the skin have formed and undergone resorption. Treatment by mercury (inunction, fumigation, ingestion), potassic iodide, and tonics has been faithfully, persistently, and vigorously conducted.

Three months after infection, the wife had severe iritis of one eye, mucous patches of the vulva, and unsymmetrical papulo-squamous syphilide of mild type. During the ensuing year, she aborted with a still-born, macerated fœtus, which had probably been dead for ten days. In 1877 she miscarried with a six-months' infant, which survived but two days. After the completion of each gestation, I examined the products of conception; and in the last instance, made a careful post-mortem section of every portion of the body and of each viscus. No lesion of the soft parts was discovered; the bones are reserved for microscopical examination with a view to comparing results with those observed and minutely described by Parrot. Sections of these present to the naked eye no abnormal appearance.

Since the last pregnancy, the wife has exhibited a gummy tumor as large as a pigeon's egg over the left mamma; and has suffered from suppurative otitis externa. Her treatment has, in general, been that pursued in the case of her husband, exception of course being made of that directed to the relief of special symptoms, iritis, etc. Both husband and wife are now in fair health. This is, in brief outline, the syphilitic history of the family.

On the 16th of December last, Mr. F. came to me, greatly alarmed, declaring that he again had a syphilitic eruption. I discovered, on examination, that the cutaneous surface of the lower portion of the abdomen, back, hips, and thighs, was covered with lesions in groups, which he could not avoid scratching, even when subjected to inspection. These lesions were hot, irritable, pea-sized, flattened, rose-colored *boutons*, or urticarial papules, with scratch lines evident between them. With a half-inch lens I could



discover no central punctum, though here and there were minute blood-scales on the summit, the result of the wounds inflicted by the finger-nails. I suspected that the disorder had originated in the bites of the *cinæ lectularius*; and, when questioned, the patient admitted that he had recently slept at a country inn, where he had been greatly disturbed during the night, as well as his fellow-traveller who shared his bed. He then remembered that each had discovered the eruption in the morning. These accidents subsided in a few days, after an alkaline bath and the application of a lead lotion. The incident is mentioned here in order to illustrate the fact that I was dealing with a patient whose skin was peculiarly susceptible to irritation.

On the 8th day of January last, Mr. F. again called upon me in alarm, insisting that, at this time certainly, he exhibited the evidences upon his skin of a fresh explosion of syphilis.

Upon examination, I discovered that the surface of the scalp, face, ears, neck, chest, dorsum, abdomen, and extremities, including the palms and soles, was covered with an eruption of strictly disseminated vesicles, nowhere arranged in groups, in various stages of development.

Dr. L. A. Duhring, of Philadelphia, recently described, in a clinical lecture delivered at the Hospital of the University of Philadelphia,\* the peculiarities of a bullous eruption, due to the iodide of potassium, occurring in a patient affected with eczema. The description given of the lesions is admirably exact, and it is interesting in this connection to note the points of resemblance and dissimilarity between the induced phenomena in the two cases.

In the following particulars the eruption in the case of the two patients displayed similar features: the vesicles were generally elevated above the surface of the skin from one-half to two lines, were roundish in shape, tensely distended by their contents, and contained a clear serous fluid, no blood nor pus. They were, when mature, well-formed, persistent, showed no disposition to rupture, even when firmly pressed upon, and were yellowish-gray in color, having a glistening look due to the external surface of the capsule of each. They were implanted upon a slightly reddened base without peripheral areola, and existed in every stage of development to complete maturity. When ruptured (some had been purposely ruptured by the patient himself), a moderately large drop of clear serum exuded. The integument upon which they were seen was neither oedematous nor infiltrated.

But in the following particulars the eruption in the case of the two patients differed: in that here reported, the lesions varied in size from pin-point to small split-pea, and were in no case larger. They did not coalesce so as to form bulk; indeed, were not closely packed, as interspaces of a diameter of two inches could be occasionally observed. There were hence no coalition septa, nor were puncta to be seen imbedded in any, like boiled sago grains. They were slightly acuminate rather than flattened, and in no instance umbilicated. When first examined, none were in phase of retrogression, and were thus neither shrivelled nor macerated.

The incipient lesions were not suggestive of miliaria—the condition in which minute vesicles appear upon the surface, like scattered seed-pearls. On the contrary, the papular origin of each was quite distinct, many papulo-vesicular forms showing upon the lower extremities. The eruption was symmetrical, but yet

more abundantly developed upon the upper than upon the lower segment of the body.

When the eruption subsided, as it did to a marked degree in a few days without treatment, the vesicles shrivelled without bursting, and left neither ulcer nor scab, merely a light desquamative crust of yellowish-red hue, which left, after falling, a transitory hyperæmia of the surface.

The patient complained of a moderate degree of itching, which in no sense compared with that from which he suffered when affected with the pruriginous *boutons* described above. He readily controlled the effort to scratch, and even complained, when his scalp was handled, of a certain degree of tenderness and soreness there. Here, as also upon the legs, palms, and soles, were many abortive lesions, but several fully-developed vesicles could be seen upon the scalp.

The facial vesicles presented a peculiarly livid appearance during the time of this examination. It was due to the intense mental agitation of the patient, the surface of the skin of the face being engorged with blood. He had not forgotten his old syphilitic papules in the same locality, which betrayed his secret to many unskilled observers.

The disease was readily differentiated from *eczema* by the fact of the permanent character of the vesicles, and the absence of any evidence of dermatitis. The failure to recognize the “boiled-sago-grain” appearance, and the absence of sweating, excluded *dysidrosis*—the disease which Drs. Fox, Liveing, Tay, and Tweedy have of late been vigorously discussing in the *British Medical Journal*.\* The absence of concentric arrangement, as pointed out by Dr. Duhring in his case, forbade confusion with *herpes iris*. The absence of fever and failure of development into pustules excluded the supposition that the disease of the skin had been induced by either *vaccinia* or *varioid*, though unquestionably there are forms of the last-named disease, such as the so-called “horn-pox,” which it would be difficult to differentiate, especially in cases where there had been no precedent febrile state. The straw-colored “stuck-on” scabs of *impetigo contagiosa* were not observed. Uniformity of lesion, absence of itching, with nocturnal aggravation, and the extent of the disease, were not characteristic of *scabies*, while the distribution of the lesions precluded the possibility that they were induced by *zoster*.

An important question remained: Were the lesions produced by syphilis? I had no hesitation in deciding that the eruption was in no way associated with the syphilitic diathesis undoubtedly present in this case, although I am aware of the fact that my position on this point will probably be disputed by many. My reasons for this decision may be briefly given as follows:

1. Vesicular lesions are rare in syphilis. Lance-reaux,† in his voluminous treatise, devotes but little more than one page to their consideration. Bassereau observed, in all, but twelve cases. I can recall but two cases of distinctly and purely vesicular syphilis, observed during more than fourteen years' experience of the disease, and in neither of these were the lesions similar to those described above.

2. The character and behavior of the vesicles in this patient were not those peculiar to the specific forms. In the three varieties described in most of the textbooks (“varicellar,” “eczematous,” and “herpetic”—inexact terms at the best) there is usually a history of

\* *Vide* Nos. for December 8, 15, and 29, 1877, and of January 5 and 12, 1878.

† *Traité de la Syphilis*, Paris, 1874.

\* Medical and Surgical Reporter, Aug. 4, 1877, p. 89.

either faint umbilication, transformation into pustular lesions, areolae of congestion or inflammation, segregation into groups, localization in or about the hair follicles, indurated and copper-colored base, sequence of scabs, scales, ulcers, or cicatrices, or obscurity of cause. Without particularizing, it will be seen that these were not phenomena noted in the case under consideration.

3. The patient in this instance had survived that period of syphilis in which we look for superficial, symmetrical, and short lived cutaneous manifestations. It is true that Wilson has described a corymbiform vesicular syphilide, occurring as a late symptom in tertiary or neoplastic stages of the disease. But in his patients the lesions were small red papules, vesicular at the summit merely, occurring in patches made up of more or less concentric segments of circles.

For these reasons it seemed to me that the eruption in this instance could have been produced only by some of the irritant ingesta. The patient had not taken the potassium iodide for several months before the occurrence of the disorder. Just prior, however, to the discovery of the lesions of the skin, a friend had given him, for the purpose of relieving pain in the chest, two of the gelatine-coated granules manufactured by Messrs. McKesson & Robbins, of New York, containing each a half grain of the extract of cannabis indica. He had taken these in the evening, and soon after, commencing to feel drowsy, he had retired to bed. He passed the night in a heavy, dreamless sleep, having been quite exhausted during the previous day by necessary attention to his business. In the morning the eruption was perceptible over the surface of his body.

In a few days, as has been already stated, without the administration of other remedies than a gentle laxative, the eruption entirely disappeared. The patient remained at rest in his house for three days, merely dusting some finely-powdered starch over those portions of the skin exposed to the air or undue friction of the clothing.

## DISLOCATION OF RIGHT THIGH UPON THE DORSUM ILII OF SIX MONTHS' STANDING.

DISLOCATION OF LEFT THIGH, WITH FRACTURE OF  
NECK AND NECROSIS OF HEAD; FALSE ANCHYLO-  
SIS OF LEFT KNEE IN FLEXED POSITION; RE-  
DUCTION OF DISLOCATIONS; EXCISION OF  
HEAD OF LEFT THIGH, AND ESTAB-  
LISHMENT OF SERVICEABLE  
FALSE JOINT; EXTENSION  
OF ANCHYLOSED KNEE  
AND RESTORATION  
OF MOTION;  
CURE.

By PROF. GEORGE E. POST, M.D.,

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FUTIN, aged 13 years, presented herself Jan. 20, 1877, at the polyclinique of St. John's Hospital, in Beirût, with a complication of injuries, the result of a vis a tergo, applied six months previous to admission, producing a fall forward, and a twisting of the trunk to the right, and the lower extremities to the left. The appearance of the child at entrance was that of a shapeless bundle of rags, from beneath which a pain-stricken face was turned pleadingly upward by a

twist in the back and neck. The body lay prone, both hips were strongly flexed, the right knee was opposite the left shoulder, and the left knee several inches to the left of the other. She could neither sit nor stand, nor lie on her back, nor extend her legs. As soon as she had become accustomed to the regimen of the hospital, she was put under chloroform and laid on her back. An examination of the left hip revealed a foul sinus, at the bottom of which was a round mass, which proved to be the head of the thigh-bone. This was removed by an incision, the cicatrix of which is clearly visible in the second of the two photographs. The thigh was then brought forcibly down to a position parallel with the axis of the body. In effecting this manœuvre, strong bands of adhesion with the pelvis were broken down, and the contracted integument and subcutaneous tissues considerably lacerated. The ankylosed knee was then straightened, a process which involved the laceration of the false ligaments, and to a considerable extent of the thin and subjacent cellular tissue also. The left lower extremity was then committed to an assistant, while the requisite manipulations were undertaken to reduce the dislocation of the right hip. This was effected without pulleys, adding another to the many proofs that bone-setting is a matter of address and attention to anatomical relations rather than of force.

The shock to the system of these extensive lacerations was very powerful, and occasioned no little anxiety. The patient having rallied somewhat, the right lower limb and the pelvis and lower part of the abdomen were enveloped in wire gauze well padded. The wound in the hip and the lacerations in the groin and popliteal space of the left side, coupled with the necessity of using extension to secure a favorable position to the new joint, forbade the use of the wire splint on this side. Its place was supplied by Buck's extending apparatus. The weight used was about five pounds.

The reaction after the operation was intense. The injured knee became violently inflamed and swollen, making it difficult to retain the extending bands in position. The joint was relieved from pressure by padding beneath the adhesive strips above and below the knee. After several days of violent fever the whole body became œdematous, the urine was loaded with albumen, the complexion assumed a waxy aspect, and for weeks it seemed that the patient must succumb. These grave symptoms yielded, however, to the use of large doses of quinine with anodynes, and, after six anxious weeks, the œdema began to lessen, the swelling of the knee declined, the general health began to improve, the albumen disappeared from the urine. Extension was maintained for two months longer, after which all retentive apparatus was removed. The right hip had long since fully regained its functions. The left knee was stiff, but not immovable in its new position. The patient could lie on the back, on either side, sit up in bed, and flex both hips. After the sixth month she began to rest her weight on the sound limb, and sit or stand by the side of her bed. Little by little she learned to walk, and at the date of the taking of the photographs from which the accompanying cuts were drawn, she was able to walk a mile with the aid of a crutch. She now stands, sits, lies in any position, and, by a twist in the pelvis and back, places the soles of both feet on a level when she walks. The real shortening is just  $4\frac{1}{2}$  inches, measured in the usual way from the anterior superior spinous process of the ileum to the inner ankle. The length of the sound limb is twenty-seven and a half inches.



Fig. 1 represents the relative length of the two limbs, when the twist of the pelvis is designedly overcome by placing a stone under her left foot.

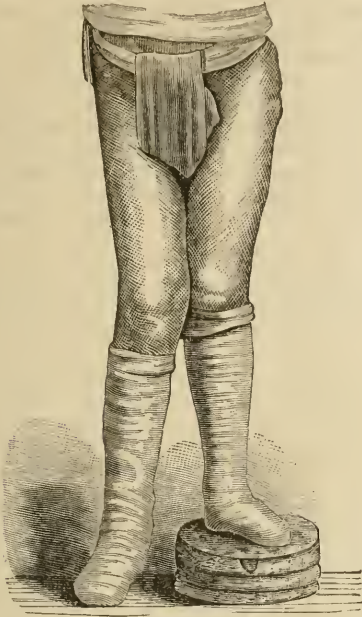


FIG. 1.

Fig. 2 illustrates the uses of both hip and knee, and shows the scar of the wound through which the head of the thigh bone was extracted. Several pieces



FIG. 2.

of necrosed bone from the upper part of the shaft of the thigh have been discharged from the same opening. Both hip and knee can be considerably more flexed than is represented in the cut. The motion of abduction in the injured extremity is slight, but that of the opposite thigh is unimpaired. It will be seen that the nutrition of all three divisions of the injured limb compares favorably with that of the sound one. The general health of the patient is perfect.

## FRACTURE OF THE PATELLA.

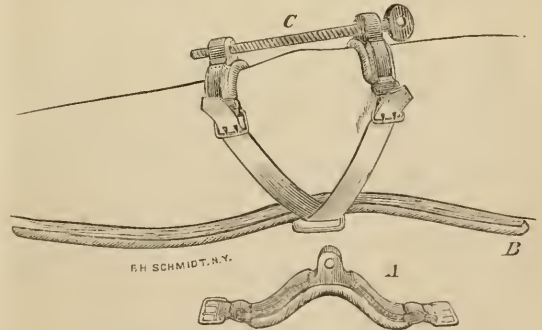
INJECTION OF ANIMAL MARROW BETWEEN THE FRAGMENTS.

By JOHN A. WYETH, M.D.,

NEW YORK.

G. S., MALE, Irish, æt. 35. In December, 1876, while in the act of falling backward, the leg being flexed and the *quadriceps extensor* on the strain, struck the right patella against the edge of an iron safe-door, sustaining complete transverse fracture of this bone about its centre. Nine weeks later I was called to treat him. Found the fragments separated about an inch, with no union, and inability to move the leg with the *quadriceps*. I approximated the pieces by means of an adhesive strip fastened above the upper fragment, and applied strong extension in the axis of the limb. A fixed dressing of plaster-of-Paris was immediately put on. Twenty-four hours after this the patient was allowed to walk about at will. Three weeks later the plaster bandages were split in front, the dressing removed, careful passive motion made at the knee, and the "movable-immovable" dressing readjusted. Six weeks after the first gypsum dressing was applied, the splint was discontinued. A good fibrous union, with a half-inch separation, was secured, and patient went to his business.

Five days later he fell on the ice-covered sidewalk, and struck with such violence on the injured knee that the skin was severely lacerated, and the upper fragment pulled three inches above the lower. So firm was the union already obtained that before this second separation occurred, a portion of the *rectus femoris* tore loose at its attachment to the upper fragment, and was found contracted into a hard lump, about as large as a walnut, half-way up the thigh. Finding none of the ordinarily described means sufficient to readjust the fragments, I had Mr. Philip Schmidt, of this city, construct the instrument figured



here, which consists of two well-padded pieces of iron (*a*), one inch and a half wide, made to fit the convexity of the thigh and leg above and below the patella, and to project at the sides, so that the straps which pass through a staple on the back of the splint (*b*) will not press upon the sides of the leg, and thus interfere with the circulation to the broken bone. The two curved pieces are connected by means of a screw (*c*) about eight inches long, which, when the instrument is adjusted, as seen in the cut, can be tightened at will. When the splint is to be worn for any length of time it will be best to apply two pieces of gutta-percha, moistened and fitted to the limb, above and below the patella, and adjust the curved pieces upon these. A greater surface is thus obtained upon which the pressure is exerted. If the gutta-percha be turned

up at the end nearest the patella the instrument cannot possibly slip over, while any tendency to tilt upward can be corrected by allowing the pieces to extend six or seven inches up (or down) the limb where they should be fastened by a roller. (The principle is the same as that of Lonsdale's and other instruments, but this one is simpler in its mechanism, and cheaper. When the patient is to remain in bed under treatment the posterior splint should extend to the foot, and have a foot-piece attached.)

Having brought the fragments into apposition, this instrument was removed after twenty-four hours and the plaster dressing again applied. A feuestrum was cut out over the patella, and following the experiments of Ollier and Goujon (Flint's *Physiology*, p. 547) upon animals, who found "that marrow transplanted into the muscular tissue will frequently (not always) generate bone," I injected, by means of a large hypodermic syringe made for this purpose, 3ij. of marrow from the femora of a young and healthy sheep, just killed, between the slightly separated fragments. No unusual inflammation ensued, nor did I succeed in getting other than the customary fibrous union. I do not know that bone-cells, transplanted from a lower animal into man, will generate bone-tissue, under the most favorable circumstances. I believe that the circumstances in this case were exceedingly unfavorable, and the failure to get bony union in this instance shall not prevent a repetition of the experiment when the proper occasion offers. I deem it very probable that the marrow which, when transplanted into the muscular tissue of the same animal will generate new bone, will, when injected between the fragments of an ununited fracture in man, where the conditions are favorable for bone-formation, stimulate the formation of callus.

APRIL 10, 1878.

## Progress of Medical Science.

**BATTEY'S OPERATION.**—In August, 1872, Dr. Robert Battey, of Georgia, for the first time, performed the operation of removing the ovaries of a woman for the purpose of bringing about the menopause. Since then it has been performed by Sims, Hégar, Trenholme, Gilmore, Thomas, Peaslee, Sabine. Dr. Sims reviewed these cases in the *Lancet*, and although the success has not been very great, he is confident that the failures were due to errors that may be avoided, and that at no very distant day this operation will rank with that of ovariectomy. The inferences he draws from his analysis are these:

1. Remove both ovaries entire in every case.
2. As a rule operate by the abdominal section, because if the ovaries are bound down by adhesions, it is possible to remove them entire, whereas by the vaginal incision it is impossible.
3. If we are sure that there has been no pelvic inflammation, no cellulitis, no hæmatocele, no adhesion of the ovaries to neighboring parts, then the operation may be made by the vagina, but not otherwise.

The operation may be resorted to under the following conditions:

1. In cases of amenorrhœa where there is no uterus, or only the rudiments of one, or where there is an incurable atresia uteri, and the menstrual molimen produces such violent disturbance of the whole system as to destroy health and endanger life, the removal of the ovaries is the only means of permanent relief.

2. In cases of prolonged physical and mental suffering, attended by great nervous and vascular excitement produced by perturbed menstrual molimen, whether menstruation be absent, scanty, or otherwise, this operation is justifiable, after all the usual remedies have failed to relieve.

3. In cases of incipient insanity and of epilepsy depending on ovarian and uterine disease, this operation is justifiable after all other remedies have failed to cure.

4. In cases of fibroid tumors of the uterus, attended with incurable hemorrhages that endanger life, when the tumors cannot be safely enucleated and removed, this operation may be resorted to with the hope of arresting the bleeding and the prospect of diminishing the tumors.

5. In cases of chronic pelvic cellulitis and of recurrent hæmatocele, when the attacks are traceable to the disturbing influences of the menstrual molimen, we may have recourse to this operation as a *dernier resort*.

This operation was first introduced under the name "normal ovariectomy," so apparent a misnomer that the *Record* spoke of it as "Battey's operation," a title which has now come into general use and which Dr. Sims has retained in his pamphlet.

**TRACHEOTOMY IN DIPHTHERITIC CROUP.**—The true value of tracheotomy in diphtheritic croup is a question for the decision of which more accurate and reliable data is required than we as yet possess. As a contribution to this literature, comes a report, by Dr. Bogue, of Chicago, of fifteen cases in which he operated, six of them successfully. This is not a large percentage of recoveries, but attention is called to the fact that, if left alone, these six successful cases would, in all probability, have shared the fate of their companions. After a careful analysis of these cases, Dr. Bogue draws the following conclusions:

1. The so-called membranous croup and diphtheritic croup are the same disease, differing only in situation, amenable to the same treatment.

2. Tracheotomy should be resorted to in all cases where death is threatened by suffocation from obstruction in the larynx, and as soon as the breathing has become insufficient to sustain the vital powers. It should be performed during the second stage of the disease.

3. It is best to use an anæsthetic; it renders respiration easier by controlling spasm of the larynx.

4. The operation should be done by careful dissection, and, if possible, the trachea should not be opened until all bleeding has ceased.

5. A tube should be used. It causes as little irritation as anything else would, and keeps the wound open better.

6. The room should have a temperature of not less than 75° F., and should be free from currents of air. The atmosphere should be saturated with moisture, by means of boiling water, or the atomizer and this water may be variously medicated to suit individual fancy. In these cases a solution of glycerine in water (1-6) was used, chlorate of potash or carbolic acid being sometimes added.

7. The patient must be *fed*, artificially if necessary. There may be, during the first night, after the removal of the tube, some difficulty in breathing from spasm of the larynx, which will usually be relieved by an anodyne, such as a full dose of paregoric.

In none of the recovered cases has there been any impairment of the voice.—*Chicago Medical Journal and Examiner*, February, 1878.



# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE NEW BILL FOR THE SANITARY INSPECTION OF SCHOOLS.

It is a reason for congratulation with such as have heretofore interested themselves in the sanitary care of the schools, that their labors have not been in vain. A public sentiment has been created in favor of the movement, which promises the best of results, and may eventually overcome the stupid and arrogant opposition of the Board of Education. It is well known that the medical profession has shown the great necessity of providing for the sanitary needs of the school-children, and has conclusively proved that the school-rooms are overcrowded, badly ventilated, are improperly lighted, that the water-closets are filthy, and that the cellar class-rooms and surroundings are wholly unfit for their present purposes. This is an old story, which need not be repeated, even for the sake of refreshing the memories of some who may have forgotten the labors of many of the representative men in our ranks who have contributed so much towards obtaining exact information on hitherto doubtful points. In fact, the necessity for the sanitary care of our school-children has been practically settled beyond the reach of argument to the contrary.

The Board of Education have, however, strenuously opposed every measure which might tend to effect the desired object, and with a vehemence and partisanship which would almost arouse the suspicion that some selfish interests were at stake. Certain it is, with all their desire to oppose the wishes of the profession and the citizens generally, they have as yet advanced no reasonable or fair grounds for the course pursued. The question is apparently such an exciting one to the Board that we almost imagine that it is the red flag in their educational meadow. But every year it is shaken over the fence, and the usual amount of dust is kicked up.

It is not surprising, then, to learn that another school bill is before the State Legislature, and that the Board of Education are ready, as usual, to oppose it. This time, however, the bill has been purely the interpretation of a popular sentiment which has been created in favor of the measures which it advocates, and as such is energetically advocated by its mover, Assemblyman Fitzgerald. Perhaps this fact may of itself tend to cast the burden of proof of interested motives as much upon the Educational Board as upon the people at large. If there is any argument in a majority, the Board this time is on the losing side.

The bill to which we refer is a good one, and we hope, now that its passage has been secured in the Assembly, despite the efforts of the School Board to the contrary, its success in the Senate will be likewise assured. The various provisions contained in it are judicious, far-seeing, practical, and, best of all, inexpensive. If placed upon its simple merits, it cannot fail to impress our legislators in the most favorable light. There is no intricate machinery to secure its success, and no chance for political jobbery and party capital, which, unfortunately, distinguishes many legislative movements ostensibly calculated for the public good. In fact, its simplicity is its greatest merit. In brief, it is merely handing over the sanitary inspection of schools to the Board of Health, and giving the latter the necessary power to act in the premises. It is provided that a sanitary inspector—and of course a medical man—shall be appointed for each school district, and shall visit and report upon the condition of schools while in session, their ventilation, light, capacity, their water-closets, sewers, heating facilities, and, in fact, everything which shall, directly or indirectly, affect the health of the scholars.

All this, however, the Board of Education assume to prove is unnecessary, meddlesome, and calculated to interfere with their legitimate functions and legal authority. Heretofore the Board was bold enough to openly protest against any similar measure; but, since the severe snubbing it has received from the Legislature, it is more discreet, and trusts its defensive measures in the hands of one of its members, whose zeal is as inordinate as it is misapplied, and who, strange to say, is scarcely equal to the occasion.

In a letter published in the *Herald*, this commissioner very deliberately says that the bill is destitute of merit from beginning to end. From one whose opinion on sanitary matters must be very valuable, this is a powerful blow against the bill. The friends of the latter may yet be sorry that he has gone so far towards settling the question of the utility of the measures proposed. But perhaps a weightier argument for his attitude is that public sentiment does not demand any change, that the daily and medical press do not understand the question, and that consequently the Board of Education is abundantly able to look after all its affairs. As sanitary inspection is one of the matters

which it is assumed to be capable of managing, there is the best of reasons in his estimation why the Board should be left alone. But the facts of past history militate somewhat against this view, and tend to make such assumptions a trifle inconsistent. If there is, or has been, no necessity for sanitary inspection outside of what the School Board pretends to be competent of making, why was the Board of Health asked to aid them in this matter? Public sentiment could not have demanded it, for the Board is entirely independent of it; and, besides, there were the trustees and school inspectors, who were supposed to know exactly what was wanted.

It is true that on that occasion the schools were vacated for the summer months, and there could not be much clashing of authority regarding any recommendations to obviate overcrowding, bad atmosphere, or other conditions inseparable from the actual presence of the pupils; but, for the sake of the argument, it is a matter of regret that even such inspections should have been advised. As we anticipated at the time, the recommendations of the Health Board were merely received as an act of official courtesy, duly filed, and, with a very few exceptions, entirely ignored. Now, the present bill provides that the sanitary care of the children shall be delivered to the Health Department, which shall not only be competent to make suggestions, but be empowered by law to enforce them, the Board of Education to the contrary notwithstanding. This appears to be a reasonable measure to all, save those who compose the Board of Education. The matter has now, however, gone so far, and popular attention is so strongly directed in the right current, that this ill-judged and presumptuous opposition may yet fall short of its real object. It would seem, when there was so much difference of opinion regarding sanitary matters between the people and the School Board, that the latter would, if for nothing more than politic reasons, be glad to accept any proposals which might tend to compromise matters and relieve them from any extra responsibilities. As the case now stands, the opposition is inexplicable, and, to those who take an unprejudiced view of the situation, absurd.

The School Board has been ready with its protests; but where are its arguments based upon the real facts of the case? Against their wanton neglect of sanitary precautions, which has over and over been proved against them, where is there evidence that these trustees or inspectors ever attempted to mitigate existing evils, or, if they did, where are the proofs that the Board ever acted upon their suggestion? But if, in answer to such questions, we are informed that the Board is able to look after its own affairs, that any extra sanitary regulations are unnecessary, we presume that all argument is at an end, and we submit accordingly. But, even against such tremendous odds, we still hope that the bill may pass.

#### THE SO-CALLED TRICHINÆ IN SHAD.

MANY of the daily journals of this and other cities have directed public attention to a statement that the shad of the present season are infested with trichinæ, and a suggestion is volunteered that other species of fish in the bay will also become the host of this dangerous parasite. We intended to pass the matter without comment, feeling that it would be superfluous to explain the absurdity of the rumor, but as we have reason to believe that the public are alarmed and would welcome a specific statement of the case, we present a few observations that may be useful at this moment.

The result of a special investigation undertaken to trace the source of the report, shows that the shad are healthy and free from any dangerous parasite, and that even most careful microscopical examinations which were made, revealed nothing which should prevent us giving these wholesome and delicious fish a clean bill of health.

We believe the report of the presence of trichinæ in fish to have been started by those who have mistaken for it a small, thread-like worm which inhabits the intestines. Having secured several fresh specimens of these worms we can state that they are quite distinct forms from trichinæ, averaging fully three-quarters of an inch in length, and of course distinctly visible to the naked eye. This fact of itself is sufficient to disarm all suspicion of trichinæ, and from the start carried a conviction of error upon its face by the singularly innocent statement of the would-be discoverer to the effect that he had no microscope with which to make any minute investigations.

We should describe the worms found as belonging to the order of free nematoideæ, called *Auguillulæ*; these are found almost everywhere, and abound in the surface-mud of rivers, aquatic plants, etc.; the marine species are not parasitic, perfectly harmless in their nature, and are removed from the fish, as a matter of course, in the process of cleaning.

We may remind our readers that the nematoid group is divided into two divisions, the first, including such formidable and well-known human parasites as the celebrated trichina, the Guinea worm, and the ascaris lumbricoides, and a host of others of more or less note, and *secondly*, of a class still more numerous, which are not parasitic at any period of their life, and lead a free existence. The worms we observed belong to the second class, and never become encysted, and can, therefore, never be mistaken for trichinæ. Much interest is attached to the history of the family of *Auguillulidæ*, which is known to include over 180 varieties, and numerous workers are in the field, among whom we may name Dr. Cobbold, of England, and our own Professor Leidy.

In regard to trichinæ we may mention the fact that M. Colin confirmed the observations of Fuchs and Pagenstecher that it is only in mammals that the



trichinæ are enabled to pass into the muscular system and remain imbedded there, preserving their vitality. If such is the case, fish can be eaten with perfect safety and without fear of the trichina. We trust these remarks will dispel any prejudice that may have arisen in consequence of the pretended discovery of these parasites in shad.

#### THE DISSEMINATION OF INFECTIOUS DISEASES BY MEDICAL MEN.

DR. WHITMORE, the medical officer for Marylebone, a large western district of London, has taken occasion, in a recent official report, to refer to the question of the dissemination of infectious diseases by medical men. While he speaks with some confidence as to practitioners among the upper and middle classes of society carrying out the precautionary measures necessary to prevent themselves becoming carriers of infection, he appears to cast a doubt upon medical men who practise among the poorer classes, as he admits there are numerous difficulties in the way of their taking equal precautions.

In reference to special cases of attendance upon lying-in women, he offers the following advice: "Every medical man, when in attendance upon these persons, should, if possible, give up his attendance upon patients suffering from contagious and infectious diseases; or, if that cannot be done, there should, in the first place, be an interval of several hours between his visits to the latter and the former, and, in addition, his clothes should always be changed."

The *Lancet* asks, "Where is the data that would justify advice of this sort, calculated to excite unlimited alarm among the public? The conditions under which infectious diseases are propagated are surely sufficiently known in these days for a medical man to avoid being a carrier, without suggesting that he must virtually close practice." "Take the phenomena of the propagation of puerperal fever in the now happily rare instances in which the medical man is the propagator—propagation probably not more common among the poor than among the rich. We protest against the vague advice of Dr. Whitmore."

In regard to this matter we presume that members of the medical profession are fully alive to the danger that undoubtedly exists of propagating diseases, the *Lancet* to the contrary notwithstanding, and that they are impressed with the duty of taking the most radical precautions of mitigating the evil. This is as it should be, and is one of the principal means of proving the rarity of instances in which the carrying of infection has been traced to medical men. Even in cases of doubt the physician owes it to his conscience always to be on the safe side. Irrespective of the dictates of humanity the profession have direct personal reasons for taking the fullest precautions in regard to these special cases, for a total disregard of

them on the part of a physician would probably carry the infection to the members of his own family.

#### POISON IN THE NURSERY.

THE constant production of toilet novelties suggests a word of caution to those who purchase them. An analyst writes to the *Lancet* that on making a chemical analysis of a packet of violet powder, he found, much to his astonishment, that it contained 25 per cent. of white arsenic.

In this instance the use of the powder had caused an epidemic among young children, many of whom died, the disease presenting every appearance of erysipelas. Here were mothers, while applying an innocent-looking toilet powder to their children, positively introducing into their systems a deadly and subtle poison.

Our readers may remember that during the recent trial in London of the notorious Madame Rachel, evidence was given that a violet powder sold by her contained a powerful irritant, which produced an unpleasant rash on the skin.

Comment upon these facts is unnecessary. Probably our readers will accept the hint to purchase such things in future from houses of undoubted respectability.

### Reviews and Notices of Books.

HANDBOOK OF THE PRACTICE OF MEDICINE. By M. CHARTERIS, M.D., Professor of Practice of Medicine, Anderson's College, Glasgow, etc. Philadelphia: Lindsay & Blakiston, 1878.

PRACTICAL GYNÆCOLOGY. A HANDBOOK OF THE DISEASES OF WOMEN. By HEYWOOD SMITH, A.M., M.D., Oxon., etc. Philadelphia: Lindsay & Blakiston, 1878.

THESE compact volumes belong to a series of handbooks in the different departments of medicine, arranged for the benefit of students and others who are in need of ready references and abstract statements of facts. Both are well arranged, admirably condensed, and thoroughly practical. We have no doubt that they will prove of great utility to the student while in attendance upon lectures and during the time when it is desirable to refresh the memory previous to examinations.

LANDMARKS, MEDICAL AND SURGICAL. By LUTHER HOLDEN, F.R.C.S., etc. From Second English Edition. H. C. Lea. 1878.

THE title of this little work is very suggestive of its practical value, while the perusal of the work itself verifies the most extravagant expectations. The object of the author has been to collect in compact form the landmarks or surface-marks of the different parts of the body, and indicate their relation to the deeper-seated parts. The value of this sort of knowledge to the physician, but especially to the surgeon who, with an anatomical eye, can make the tissues transparent before him, is incalculable. The mapping out of the human body is one which is most instructive to the practical man, and he is enabled, after considerable

experience, to have landmarks of his own; but in the little work before us this knowledge is systematized in such an intelligible manner as to place it within the reach of all. It is one of the most interesting little works we have seen for a long time.

**LESSONS IN LARYNGOSCOPY, INCLUDING RHINOSCOPY AND THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT.** By PROSSER JAMES, M.D., M.R.C.P., etc. 2d Edition. London: Ballière, Tindall & Cox. 1878. 12mo, pp. 176.

This second edition is virtually a reprint of the first with the advantage of a careful revision and the increased artistic value to the admirable plates. It is well calculated to maintain its former reputation as a class-book and a comprehensive guide to the general practitioner who may desire to become a practical laryngologist.

**A MANUAL OF NURSING.** Prepared for the Training-school for Nurses attached to Bellevue Hospital, N. Y. Putnam & Sons. 1878. 12mo, pp. 142.

This manual has been prepared for the Committee of the Training-school for Nurses attached to Bellevue Hospital, by Dr. Victoria White, and is really a model in its way. It evinces, in a most striking manner, a thorough knowledge of the wants of the professional nurse, and also a capability of ministering to them. Some idea of its contents may be gained by a reference to the following chapter headings: Qualifications of a Nurse—Hospital Management—Observation of the Sick—Administration of Medicines, in which are included Directions for Giving Enemata, Hypodermic Injections, Passing the Catheter, etc.—Applications, which include Poultices, Sprays, Cupping, Blisters, etc.—Dressing of Wounds, including Hints on Bandaging—Operations—Points regarding Special Cases—Articles Required in Emergencies—Monthly Nursing—Nursing of Sick Children—Hygiene of Children—Cooking for the Sick, etc., etc. It is in fact one of those works concerning which it may be said much attention is paid to little things, and much pains are taken to give them the real importance which they deserve.

At the risk of reflecting upon the knowledge of the younger members of the profession concerning minor details, we presume to recommend to them the perusal of this work in the possible hope that they may be much benefited thereby.

**TRANSACTIONS OF THE AMERICAN NEUROLOGICAL ASSOCIATION FOR 1877.** Edited by E. C. SEGUIN, M.D. Volume II. New York: G. P. Putnam's Sons.

This is the second publication of the Society, and comprises a number of papers read during the sessions of 1876 and 1877, and from their diversified character the reader is presented with a volume of great interest. We regret that there is nothing from the pens of Wood, Pepper, Bartholow, and others of the Association, who are better known to the profession than the majority of writers whose articles appear. Weir Mitchell contributes but a page or two, and his short, able paper is finished by the reader in a short space of time, while other members of the Society are each represented by three or four long articles. This is a feature of society reports which we have often commented upon, and it seems to be the rule that variety should be sacrificed.

The articles in the volume before us which seem most worthy of mention are those of Drs. Emerson, Schmidt, Gibney, Seguin, Webber, Miles, Mitchell, and Hun. Dr. Emerson's paper upon Syphilitic Sciatica is very exhaustive and well written. It has been his aim to prove that syphilitic sciatica is not so rare a

disease as it is generally supposed to be, and that it is usually due to pressure made by neoplastic growths upon the nerve-trunk. Dr. Gibney writes upon Spinal Irritation (it would be well if this vague term were expunged from the nomenclature of nervous disease), and considers it to be the result of a localized sub-acute meningitis of the cord, and that there is usually some history of traumatism. His observations throw much light upon the history of the trouble, but cannot be accepted in their entirety. An article by Dr. Hammond, headed "The Odor of the Human Body," is of a somewhat sensational character. The author considers the pathological conditions which are attended by an emanation of a "violaceous" perspiration. Dr. Hammond, whose well-known accuracy and experience in matters of scientific research enables him to speak with authority, found that in three cases an odor comparable to that of the pine-apple was "exhaled from the left lateral half of the anterior wall of the chest," "from the skin of the head and neck," and "from various parts of the body." In a fourth case the odor was not so agreeable, and resembled that of Limburger cheese.

Dr. Hammond carefully collected the sweat and treated it as follows: "With this object in view, I covered the affected side of the chest with a perfectly clean cambric handkerchief while the perfume was being evolved, and when it was well saturated with perspiration, and thoroughly redolent with the peculiar odor, I placed it in a glass retort, into which I introduced four fluid ounces of proof spirit. This was allowed to stand for several hours, and then distillation was effected at a temperature of 120°, and was continued till about one-fourth of the fluid contents had passed over into the receiver. This distillate was very strongly impregnated with the perfume of violets, as will be distinctly perceived in the portion contained in the vial which is now exhibited." This Dr. Hammond found to be butyric ether.

Dr. Schmidt's article upon the Intimate Structure of Nervous Ganglionic Bodies is a truly scientific paper, and impresses the reader at once that the author is a most modest and industrious student of neurology. Dr. Schmidt found that two different kinds of processes arise from each sympathetic ganglionic body, and he considers that these have different functions because of a dissimilarity in structure. Dr. Beard presents many interesting facts in regard to the prevalence of endemic tetanus, and produces much valuable statistical and other information. Dr. Beard is inclined to indulge in a looseness of phraseology which is inconsistent with the exactness which is indispensable in making scientific statements; for example he says, "The pathology of tetanus I take to be in general a cold in the spinal cord."

Dupuy's articles do not possess the merit of novelty, but are quite interesting, and display the author's familiarity with the views of Brown-Séquard, his teacher. Dr. Webber's article upon the Forms of Paralysis which follow certain Acute Diseases, is exceedingly good. Dr. W. presents many cases of cerebro-spinal meningitis, puerperal fever, typhoid fever, etc., so complicated, and an admirable review of the literature of the subject is appended, so that the article is quite complete. The report is quite equal to that of 1875, and is a valuable addition to the library of the neurologist.

**TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.** Vol. XXVIII. 1877.

FULL reports of the June meeting which have previously appeared in THE MEDICAL RECORD leave little



to be said as to the published volume, save to call attention anew to the value of some of its papers to medical men, and to specify some of their conclusions, which may possibly have been forgotten in the press of medical business. Dr. A. B. Palmer's notes as to the "Effects of Quinine in Acute Pneumonia" will strike the eye of the average practitioner, particularly at a time when the loss of some of our ablest medical men from that disease is still fresh in the public mind, and as the cases of successful treatment of the disease are in extraordinary disproportion to knowledge of its processes of development, progress, and termination. The "Report on Animal Vaccination," by Dr. Henry A. Martin, Miss., with a reproduction of the celebrated drawings of Denoué Decantelen, Paris, of vaccine cicatrices, is a thorough and exact theoretical and experimental review of the whole subject. After carefully testing a series of vaccinations with vaccinia from the five hundred and seventieth animal of his own series, and the eight hundred and thirtieth from the original case of Prof. Depaul, of Beaugency, France, and comparing them with vaccinations performed with matter that has passed through fewer transmissions, Dr. Martin concludes that vaccinia arising from original cow-pox transmitted through a series of selected young cattle, is less liable to lose its properties than vaccine matter which has been obtained from the human pustule. He has never observed the violent inflammatory and erysipelatous complications, so numerous when the original cow-pox matter or that of very early human removes is employed, in cases in which the vaccine has been many times transmitted through selected bovines. Our esteemed contributor, Dr. Ezra M. Hunt, of New Jersey, has one of those thorough papers on "State Medicine and Public Hygiene," by which he has earned such an enviable distinction in the literature of sanitary science; although in this instance he limits himself almost too rigidly to a discussion of views that have recently arisen, and consequently draws too little upon his own abundant sources of information. Dr. Cabell, of the University of Virginia, treats the "Etiology of Enteric Fever" from the standpoint of the germ theory, rather assuming it provisionally, however, than accepting it as a scientific demonstration. Dr. Bell's paper on tubercular disease in cattle is another noteworthy article, and one that introduces a new factor into the etiology of consumption. Dr. Lewis A. Sayre's fine paper on "The Treatment of Fractured Ribs," and Dr. Lee's on "Suspension in Spinal Distortion," should be carefully studied by surgeons.

**DIAGNOSIS IN PATHOLOGICAL ANATOMY**, with Directions for making Post-mortem Examinations. By JOHANNES ORTH, First Assistant in Anatomy at the Pathological Institute in Berlin. Translated by FREDERICK CHIEVER SHATTUCK, M.D., and GEORGE KRANS SABINE, M.D. Revised by REGINALD HEBER FITZ, M.D., Assistant Professor of Pathological Anatomy in Harvard University. Sole authorized English edition. New York: Published by Hurd & Houghton. Boston: H. O. Houghton & Co. Cambridge: The Riverside Press. 1878.

This volume, containing 425 pages, has two general divisions: 1, appearances presented by external examination of the body, or *inspection*; and 2, appearances presented by internal examination, or *section*.

The external examination embraces inspection of the body as a whole, and the inspection of its several parts. The internal examination is divided into four parts: 1, the spinal cord; 2, the cranium; 3, the thoracic and abdominal cavities; and 4, the extremi-

ties. The author proceeds, under the head of inspection of the body as a whole, to direct attention to general attributes, such as relate to age, sex, stature, frame, general nutrition, and general character of the skin. Under this head he has described the gross appearances of the various growths which appear on the skin and cellular tissue beneath it, and with the exception of an occasional appearance of the word microscopically for macroscopically, the descriptions are all that could be desired in a work of this kind.

We next come to the internal examination, and we find that the three great cavities of the body are examined in their successive order from above downwards: 1, cranial; 2, thoracic; and 3, abdominal. The author gives as a reason for beginning with the head that the amount of blood in the brain and its membranes may be determined before section of the great vessels in the neck. The abdominal cavity, it is said, should be opened before the thoracic, but its examination may be postponed until the examination of the contents of the thoracic cavity has been completed. In cases in which it is necessary to determine whether a new-born child has breathed or not, the examination should commence with the thoracic and abdominal cavities. The order preserved throughout the book is, first, inspection; second, description of method of opening cavities and removal of organs; third, description of general appearances; fourth, description of special morbid conditions. In this manner the author has succeeded in presenting to the profession a systematic work upon the method of making post-mortem examinations, and also upon the gross appearances exhibited by all the organs and tissues when in a diseased condition. The basis of the volume is the regulation introduced by Virchow into the Pathological Institute at Berlin. In the introduction reference is made to the preliminaries necessary to the proper performance of autopsies, the instruments required, and a description is also given of the chemical and microscopical appliances necessary to make a complete microscopic examination. The book doubtless, as it is claimed, represents the teaching of Virchow, and for this reason, if for no other, it has, as the reviser states, "a strong claim for consideration." Its careful study will inevitably benefit the man who has occasion to make an autopsy.

**VORLESUNGEN ÜBER ALLGEMEINE UND EXPERIMENTELLE PATHOLOGIE**, von Dr. S. STRICKER, o.ö. Prof. der allgemeinen und experimentellen Pathologie in Wien. 1 Abtheilung. Wien, 1877. Wilhelm Braumüller.

This work is to be published in three parts, of which the first only has reached us. The part before us contains eleven of the series of lectures, and deals chiefly with the essence, causes, duration, and terminations of disease. Five of the eleven lectures are devoted to the consideration of infectious substances and contagion, not too large a proportion, when the importance of the subject is taken into consideration. The author gives brief historical sketches of the rise and progress of the different opinions and theories concerning infection and contagion, furnishing a concise and instructive résumé of the steps which have led to the present state of our knowledge of the subject. This portion of the work contains, however, little that is new. Neither can it be said to present an exhaustive scientific consideration of the subject, but it furnishes, in an attractive and readable form, much information that will be valuable to busy practitioners, who have not had time to follow the gradual advances of this branch of medical knowledge. The causes

and modes of death in disease are treated in a very satisfactory manner. One statement made by the author, in speaking of artificial respiration, we do not remember to have seen elsewhere; it is that compression of the larynx of an animal apparently dead from suffocation or poison, will cause a deep inspiration. Dr. Stricker has repeatedly observed this. It would be premature to attempt an analysis of the merits of the work from the small portion of it that is before us, but it certainly promises to be a welcome and valuable addition to medical literature. The lectures are written in an easy and attractive style, and in this respect, at least, contrast very favorably with many of the recent additions to German medical literature.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Vol. X. Philadelphia: Lindsay & Blakiston. 1877.

This volume of the *Transactions* contains the papers read before the college from October, 1876, to July, 1877, which, however, are published with the understanding that the college is not responsible for the statements or opinions set forth in them. The papers are apparently published in full, but no account is given of the discussions following the reading of them. Among the most valuable of the published papers, is one by Prof. J. J. Reese, on the "Post-mortem Imbibition of Poisons, more especially in its Medico-legal Relations," and one by Prof. Wm. Pepper, on the "Internal Administration of Nitrate of Silver." Dr. Robert Harris is the author of a very interesting essay on "The State of Medicine in China." Among the other papers we may mention one by Prof. da Costa, on "Relapses in Typhoid Fever," one by Dr. Lewis, on "The Ophthalmoscope in Medical Diagnosis," and one by Dr. Mears on subcutaneous section of the humerus and the formation of a false joint in the treatment of old dislocations of the shoulder. The *Transactions* are as usual printed on good paper and in good type, forming a handsome book of over 200 pages.

TRANSACTIONS OF THE KENTUCKY STATE MEDICAL SOCIETY, 22d Annual Convention, held at Louisville, April, 1877. Louisville: John P. Morton & Co. 1877.

This volume of the *Transactions* of the Kentucky State Medical Society contains little that will interest the profession outside of the State of Kentucky. The report of the proceedings of the Society is full, and no doubt satisfactory, but of that we cannot pretend to be a competent judge. The papers published are numerous, but most of them are short and sketchy, and none of them can be said to possess a really scientific character. To our mind the best thing in the book is the address of the President, Dr. Gaines, of Hopkinsville. It touches briefly on many subjects of general as well as local interest, and is written in a flowing and attractive style that makes it pleasant reading.

SPINAL DISEASE AND SPINAL CURVATURE: Their Treatment by Suspension and the Use of Plaster-of-Paris Bandages. By LEWIS A. SAYRE, of New York, Professor of Orthopaedic Surgery in Bellevue Hospital Medical College. London: Smith, Elder & Co. J. B. Lippincott, Philadelphia. 1877.

THE treatment of disease of the spinal column, whether caries or lateral curvature, has always been unsatisfactory to the general practitioner, on account of the difficulty in obtaining a properly fitting instrument for the former, and from a want of a clear understanding of the cause in the latter class of deformities. A plan, therefore, of giving support that

could be applied by the surgeon himself, and be under his control, has long been sought for.

At the meeting of the American Medical Association, in 1876, Dr. Sayre read a paper on the treatment of Pott's disease by means of a plaster-of-Paris jacket, and since then has advocated the treatment of that disease exclusively by this means. Last summer he went abroad in order to bring to the attention of English surgeons "the efficacy of the plan of treatment I have of late devised and carried out," and while in England compiled the volume under review. The greater portion of the book consists of a reprint of the paper mentioned above. The book consists of two parts, that on spinal disease, by which term Dr. Sayre means caries of the spine, and that on lateral curvature, or as our author calls it, "rotary curvature of the spine," diseases totally different in their pathology and mode of origin.

And first in regard to spinal disease. He begins by giving a short account of the pathology, in which he claims a strictly traumatic origin, and "rejects altogether the view held by the profession in general, that Pott's disease is, above all others, one of essentially strumous origin," but he admits that it occurs frequently in tuberculous subjects. The more we see of disease of the vertebrae, the more are we impressed with the view that it is much more frequent among those who have inherited a vitiated constitution from their parents, or have acquired such a diathesis, and that there is a strumous element in spinal disease.

He does not seem to be aware of the fact that disease may begin, and even be entirely confined to the intervertebral disks, the bone being not at all, or only slightly, involved in the disease.

In naming the symptoms he has omitted to give those of disease between the first and second cervical and the occiput, where the pain is in the course of the occipital nerves, and *not* in the neck or throat, and may be mistaken for neuralgia of these nerves. On page four he speaks of "reflex muscular contractions," as an early symptom of caries of the spine; he then goes on to explain what he means by "reflex contractions," namely, "that every joint of the lower limbs is bent for the purpose of preventing any concussion from affecting the bodies of the inflamed vertebrae." We are unable to see that there is anything "reflex" about this, and it is a misnomer to call it so. On page eight, in speaking of paralysis of the limbs, he states that it is more common "when the disease involves the lower portion of the spine, and when the nerves that are given off to the lower extremities have become affected."

Post-mortem examinations have demonstrated that pressure on the nerves is *not* a common cause of paralysis, and that loss of power is a more common accompaniment of disease high up than low down. Again, he states "that paralysis depends either upon effusion into the cord or upon pressure through displacement of the vertebrae: . . . that in the former instance the condition of the paralyzed limbs will gradually improve; . . . in the latter the prognosis, so far as restoration of power is concerned, is very unfavorable."

Post-mortem examinations prove that direct bony pressure is very rarely met with. The investigations of Charcot, Michaud, and others in regard to secondary affection of the spinal cord in the course of Pott's disease, seem to be entirely unknown to the author. The prognosis in regard to recovery from paralysis in the course of the disease under consideration, is not now the pressure is caused, but on the amount of secondary changes in the cord. Having expressed his



views in regard to the pathology and complication met with in disease of the vertebrae, he goes on to state the indications for treatment. On this point there can be no difference of opinion. Good and firm support to the inflamed bones, so as to give absolute rest to the parts, is demanded.

For this purpose he advocates the use of a plaster-of-Paris jacket, which he claims to have devised. His description of the mode of application is clear and easily followed. It seems to us that it is better adapted to disease in the lumbar and middle dorsal region than when the upper dorsal and cervical vertebrae are involved. When the disease is above the fifth or sixth dorsal vertebrae, our main support must depend on holding up the head, and for this purpose we think that a well-fitting brace with chin-piece is better. We have always found the chin-piece devised by Dr. C. F. Taylor to give good support, and at the same time so slight a disfigurement that we can hardly recommend the ungainly contrivance that Dr. Sayre calls a "jury mast." If, however, the use of suspension for the head is desired, the chin-piece used by Dr. Benj. Lee, of Philadelphia, is a much more elegant apparatus. Whether a plaster-of-Paris jacket is better than any other mode of support in all cases, is a question that each surgeon must decide for himself. That it has its disadvantages is evident from the troublesome ulcerations that have occurred under the bandage, even in so skilful hands as Dr. Sayre's, and from the impossibility to keep the skin in good condition. We very much doubt whether cures are more rapid after treatment by means of the jacket than with any properly fitting brace that gives good support. There is one point of great importance that Dr. Sayre has failed to mention, and that is, leaving off all support too soon. We have seen cases where the bones were evidently ankylosed, but after a time the old pain had reappeared, and treatment had to be begun again, much to the disappointment of both physician and patient. It is altogether too soon to decide upon the real value of the plan advocated by the author.

The second portion of the volume is devoted to the treatment of lateral curvature of the spine. He begins by giving what he calls his former explanation of its cause, but neglects to state that Barwell brought forward the theory that he now claims as his own. He now adopts the theory of rotation suggested by Dr. A. B. Judson, who, in a very able paper read before the Academy of Medicine in 1876, considered that "the immediate cause of the curvature is an inability to support the superincumbent weight." Any suggestion as to the cause of lateral curvature that leaves out the explanation of the fact that it is much more common among females than males; that the curvature, in curves primary dorsal, has its convexity to the right; that it is more common in the temperate zone than in hot climates, must be looked upon as unsatisfactory. Among those who carry heavy weights on their heads this deformity is almost unknown. Our author advocates almost the same plan of treatment for this disease that he does for angular curvature, namely, a plaster-of-Paris jacket, and suspension for cases at all advanced. We think that the theory on which the above plan of treatment is based is wrong, and although a plaster-of-Paris jacket may relieve the pain in old and marked curves, we do not think that it will diminish their amount. In regard to suspension, it seems to be a good mode of exercising the muscles, and might be adopted with benefit in many cases. In old rigid curve we do not think that any mode of treatment promises much relief.

We very much question the good taste of the pho-

tograph of the author appearing so frequently in illustrating the application of the jacket, as well as the many letters from friends of the patients who have been under Dr. Sayre's care, speaking in such extravagant terms of the value of the mode of treatment and expressions of the hope that the author will be "eternally rewarded" for the great benefit he has conferred on those afflicted with spinal disease. They add nothing to the value of the work, and had much better have been left out.

The purpose of the book is to demonstrate the mode of applying the plaster-of-Paris jacket, and this Dr. Sayre has done in a manner that leaves nothing to be desired. His descriptions and directions are so clear that any one can easily follow them, and for this purpose we cordially recommend the book to the profession.

**STUDIES IN PATHOLOGICAL ANATOMY.** By FRANCIS DELAFIELD, M.D., Adjunct Professor of Pathology and Practical Medicine, College of Physicians and Surgeons. Nos. 1 and 2, February and March, 1878. Wm. Wood & Co., 27 Great Jones Street, New York City.

JUDGING from the two numbers before us, they might very properly be called illustrated annotations in Histology, as the first of them is taken up with matters relating to the connective tissue group, and the second gives us the anatomy of the pleura. It has always been of primary importance to get clear ideas about connective tissue corpuscles and the intermediate tissue, and a number of excellent observers have directed special attention to these matters. As a natural consequence old ideas have been materially modified. It seems to be natural, therefore, that Dr. Delafield should commence at this point, and he does so by giving us a number of excellent drawings of tissues that he has prepared in certain special ways. A point of particular interest appears to be the results obtained from a triple method of staining, viz., with osmic acid, hematoxylin, and eosin, showing conclusively, as it would appear, that the so-called lymphatic spaces are totally distinct from the connective tissue corpuscles. His views as to the forms of these bodies are much like those first stated by Waldeyer, though he would seem willing to include the endothelium of serous membranes among the essential elements of the connective tissue which it covers. In regard to the anatomy of the pleura the views of Dybkowski and Klein are corroborated in the main. The drawings are the main features of the work, there being but few pages of text, which is mostly explanatory of the views which are advanced. The work gives promise of being a valuable contribution to the histological literature of the day, and reflects credit upon the liberality of the author, and his careful and accurate methods of work.

**PATHOLOGICAL REPORT OF THE MONTREAL GENERAL HOSPITAL.** for the year ending May 1, 1877. By WILLIAM OSLER, M.D., of McGill University. Vol. I. Montreal: Dawson Brothers, publishers, 1878.

The author, in dedicating this little volume of 97 pages, announces that it is the first pathological report from a Canadian hospital, but it is one which is not only highly creditable to the author, but should set an example to the staff of other hospitals throughout the country. The more interesting cases out of one hundred autopsies during the year are recorded, together with a few from private practice. The author has clearly followed the systematic plan laid down by Virchow, and has given us the fruits of it. Cases are arranged in groups, while to many the chief clinical

features are added, with valuable references. In many the histological examination has been thoroughly done with satisfactory results. Two records of pernicious anemia are remarkable in this particular.

## Reports of Societies.

### NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, April 1, 1878.*

DR. E. C. SEGUIN, PRESIDENT, IN THE CHAIR.

DIGITI MORTUI—DEAD FINGERS.

DR. THOMAS A. MCBRIDE read a brief and interesting paper upon the above subject. It contained the history of a case that had come under his care, a *résumé* of the literature, the etiology, and the pathology of the peculiar condition.

In a man *æt.* 32 years, and of neurotic constitution, certain parts of the index and middle fingers of both hands, also of the end of the ring finger of the right hand, at irregular intervals and for varying periods became cold, of a dead-white paleness, numb, stiff, had some loss of sensibility, and were moderately painful. These symptoms were replaced by a dusky, often purplish-red color of the same parts, was accompanied by the sensation as having been stung by nettles, and soon after the affected portions of the fingers regained their normal appearance. These phenomena appeared to occur independently—occurring when the patient was otherwise healthy as well as when sick. No similar phenomena had been observed elsewhere in the body. Fatigue, exposure to a draught of cold air or to cold water, and possibly the emotions, had seemed to act as exciting causes.

The phenomena were explained on the ground that there was *vascular spasm* involving arteries, capillaries, and veins. The *treatment* consisted chiefly in the use of the galvanic and Faradic currents, and alternate douches of hot and cold water.

*Literature.*—The disease was first described by Brodie in his lectures on "Local Nervous Disorders," published in London, 1837, but delivered some years before. It had since been referred to by Huston, in 1836; Raymond, in 1862, 1872, and 1874; by Nothnagel in 1866; Estlander, in 1870; Fischer, in 1875; and by Dr. Allan McLane Hamilton, in the *New York Medical Journal* for October, 1874.

*Symptoms and Course.*—The development of dry gangrene from *digiti mortui* was rare. According to Raymond, the condition usually preceded what he had called local asphyxia, which might be acute or chronic. If acute, it might go on without any disturbances of nutrition, but more commonly gangrene, more or less localized, occurred, and sloughs of considerable size might form; or, what seemed more common, was that, after a small amount of gangrene had occurred, the local asphyxia disappeared, and cicatrization followed. In the chronic form, lasting for some months, there might be localized gangrene followed by cicatrization, as in the acute; but more commonly there were manifested other alterations in the nutrition of the parts, so that the skin became much thickened and indurated.

*Pathology.*—In speaking of the pathology, Dr. McBride was of the opinion that the condition was produced by the action of the *vaso-motor* system, but he did not think that the disease was a *vaso-motor* neurosis. He was inclined to regard the condition as

one produced reflexly through the *vaso-motor* system, and in his case as being an accident depending upon increased irritability of a certain part of that system; that is, it indicated a nervous system of great mobility, and otherwise had no significance.

The patient had had phthisical manifestations several times within twelve years, but they had not exhibited any activity during the last *four* years. He had also suffered for two months in 1874 from subacute spinal paralysis, but entirely recovered. He had been given to the use of alcohol and to sexual excesses, but had never had syphilis. The paper was discussed by Drs. Hammond, Spitzka, Wells, and Seguin.

The Society then proceeded to the election of officers, with the following result: For President, Dr. J. C. Shaw, of Brooklyn; First Vice-President, Dr. E. C. Spitzka; Second Vice-President, Dr. L. D. Kiernan; Secretary, Dr. Landon C. Gray; for Council, Drs. W. A. Hammond, E. C. Seguin, Max Herzog, and T. A. McBride.

The Society then adjourned.

### NEW YORK ACADEMY OF MEDICINE.

#### SURGICAL SECTION.

*Stated Meeting, April 9, 1878.*

DR. STEPHEN SMITH, CHAIRMAN.

OCULAR AND ORBITAL TUMORS—MYXO-SARCOMA AND MELANO-MYXO-SARCOMA.

DR. THOMAS R. POOLEY read a brief and interesting paper, which consisted chiefly of the history of a case that came under his observation as Visiting Physician to Charity Hospital. The patient was a woman, *æt.* 55 years, single, and by occupation a seamstress. There was a marked family tendency to phthisis. The patient, however, had always been remarkably healthy with the exception of suffering considerably from hemicrania. The first manifestation of a tumor, although she had suffered from eye trouble for some time, was a small lump upon the upper part of the left eye-ball. The growth increased quite rapidly. It was situated upon the sclerotic, under the conjunctiva, and was movable. It produced marked exophthalmus, downward and outward. There was atrophy of the optic nerve—optic neuritis of the usual form.

When the patient was first seen, no intraocular tumor could be discovered by the most careful examination. It was proposed to remove the tumor without sacrificing the eye, but the patient left the hospital on the day set for the operation.

The protrusion of the eye increased; the cornea sloughed; the patient returned; the eye-ball was enucleated; and at the same time the tumor, that was attached to the back part of the orbit by a pedicle, was removed. Upon examination, the eye-ball was found to contain a new growth. The specimens were exhibited, were accompanied by microscopic preparations made by Dr. Bettmann, and by sketches of the patient made by Dr. Fridenberg, House Physician. Both tumors were examples of myxo-sarcoma; the orbital growth only was pigmented, and to it was applied the term melano-myxo-sarcoma.

Dr. Pooley then entered upon questions relating to differential diagnosis and certain points connected with the operation. The question also arose: How was the presence of the tumor in the eye-ball to be explained, as there was apparently no destruction of



the sclerotic at any point? Dr. Pooley thought it probable that the growth had extended from the orbital tumor to the eye-ball through the opening made in the cornea. In conclusion, Dr. Pooley raised the question: Was there any predisposition to the formation of malignant tumors in those subjects who had a hereditary tendency to phthisis?

Dr. WEBSTER referred to five cases of melano-sarcoma of the eye that had fallen under his observation. In all the cases the disease returned, and made its appearance either in the orbital cavity or in some of the internal organs. He was inclined to the opinion that the ocular tumor in Dr. Pooley's case was metastatic.

Dr. SPITZKA thought it was the prevailing opinion among pathologists that there was a special tendency to the formation of malignant growths in those who had a marked hereditary tendency to phthisis.

On motion, Dr. Pooley's paper was referred to the Academy, and the Section adjourned.

## New Instrument.

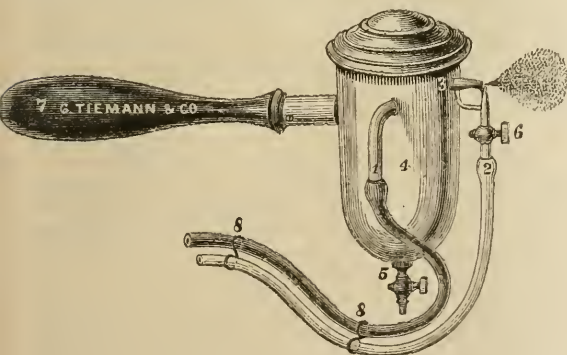
### A MODIFIED ATOMIZER.

FOR USE IN ANTISEPTIC SURGERY.

By FRANZ HEUEL, JR., M.D.,

NEW YORK.

THE apparatus represented in the accompanying cut is a modified apparatus for use in antiseptic surgery. The modification consists in the addition of two flexible rubber tubes and a steam-chest to the ordinary atomizing apparatus used for inhalation purposes, and may be readily attached by the physician himself to any of the atomizers now used. In the annexed figure, 4 is a steam-chest, to the upper part of which is soldered, at 3, the ordinary metal atomizing tubes, and at the side a tube, 1, to which is to be attached a piece of flexible rubber steam tubing, for carrying steam from a boiler; opposite 3 is a wooden handle, 7, for holding the apparatus, and at the lowest part of the chest is a stop-cock, 5. The rubber tube, 2, delivering



the medicated fluid, is also furnished with a stop-cock, 6, so that the amount of fluid atomized may be varied at pleasure. The steam and water tubes, 1 and 2, are held together by figure-of-eight pieces of wire, so that they may be handled as if they were but one tube.

As is readily seen, the length of these tubes may be varied to suit the occasion, only remembering that the longer the tubes, the greater the pressure of steam required, and the higher must the vessel containing the medicated fluid be placed in order to deliver it at the

opening of the tube, 2. The steam, which condenses in the tubing and steam-chest, is allowed to escape, when necessary, through the stop-cock, 5, so that the patient is not scalded by a jet of hot water.

The use of long flexible tubes, combined with the steam-chest, permits the boiler of this apparatus to be placed at such a distance that all danger of explosion, when ether is used, is avoided, as well as all interference with the operator. The force, amount, and direction of the spray can also be varied at pleasure. In the ordinary atomizers the whole apparatus must be placed unpleasantly close to the patient; in this a very light portion is readily supported and directed by the hand without fatigue.

## Correspondence.

### THE MEDICAL PROVIDENT SYSTEM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—A circular of "Out-Patient Department of the Good Samaritan Hospital" was delivered at my office a short time ago. If the by-law quoted is a fair interpretation of the "Provident System," I certainly am not a supporter of that system. \$1,100 annually is a sum quite sufficient to support a family of three or four persons, and enable them to pay their physician at least \$1 a visit. Such a plan as therein suggested, carried into the other departments of medicine, would only tend to undervalue still further medical skill, and render more difficult the early years of the young practitioner.

I number among my patients many whose income is less than \$12 per week, who, I am persuaded, do not feel themselves overcharged at \$1 a visit. The fact is, Doctor, that were it not for the hope which those physicians entertain of increasing their private practice through such enterprises, they would be exceedingly backward in countenancing such institutions. The New York Hospital is a case in point, where a sick man can obtain probably the best medical or surgical skill in this city, board, room, etc., for \$15 per week; professional services charged as 0. Those gentlemen dispense their skill, which, by the by, in consultation with the ordinary practitioner is exceedingly valuable, at the hospital, for what? They call it reputation, some of us call it advertising, and were it possible to take from these positions their notoriety, the New York Hospital and like institutions would soon be placarded with the usual notice "To let."

Therefore, it seems to me that the sooner we stop this method of "*aiding the poor*," the better it will be for us, for our profession, and for the very poor themselves who are supposed to be benefited.

Respectfully yours,

"NON PROVIDENT DOCTOR."

CARBOLATED CAMPHOR IN DIPHTHERIA.—M. Soulez reports that he has successfully employed carbolated camphor for some months in the treatment of diphtheria. The agent appears to act directly upon the false membrane by lessening its inherent vitality, and hence prevents the dangerous inflammations that arise from more caustic remedies. He dissolves the camphor in crystalline carbolic acid and alcohol, nine parts acid to one of alcohol, and uses the mixture either alone or combined with an equal weight of the oil of sweet almonds.

## INTRA-VENOUS INJECTION OF MILK.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In view of the great practical importance of the subject, and as a supplement to Prof. Thomas's very interesting paper on "Intra-Venous Injection of Milk as a Substitute for Transfusion of Blood, with Cases," reported in the *Record* (April 27, 1878, p. 337), allow me to lay before your readers the results obtained by Dr. N. Wulfsberg (Privat-docent, Univ. of Christiania), while working in the pharmacological laboratory of Prof. Marmé, of Göttingen (v. Nachricht. v. d. Königl. Gesellsch. d. Wissensch. u. d. G. A. Univ. zu Göttingen, No. 3, Feb. 20, 1878). He experimented largely on animals, and confirms Prof. Thomas's *practical* suggestions.

Dr. Wulfsberg found that a few minutes after the injection of small quantities (6-8 grammes) of fresh, warm cow's or goat's milk into the external jugular vein of a rabbit, the milk-globules are uniformly mixed with the blood, some of them swimming free, some adhering to the colorless blood-corpuscles. An hour later there are not so many free globules, but colorless corpuscles may be seen which enclose a globule, and still later the number of enclosed globules is found to be much increased; two, three, and even four may be seen within a corpuscle. If the latter can be made to rotate, it is plainly seen that the globule is *within* it, and not merely *adherent* to its external surface. This can be best seen with 300-400 magnifying power, when the red corpuscles are decolorized by acetic acid. In blood drawn a little later one finds continually fewer free, and more and more enclosed milk-globules. Two to six hours after the injection no more free globules are to be found, and very few that are visible in the colorless corpuscles, but—as after a good meal—there is a striking increase in the relative number of the latter. In twenty-four hours the blood is again normal.

When dogs received repeated intra-venous injections of from 70 to 250 grammes of milk, they rapidly lost weight, the majority of them dying soon after receiving the last-named quantity. During life they showed no serious symptoms, but after death unchanged milk-globules were always found in the blood, and in the lungs were found larger or smaller blood-clots. True fat-emboli could not be recognized anywhere; the kidneys were always normal.

When hypodermic injections of milk were given the animals lost flesh; and when they were killed, a few days after the last injection, considerable quantities of the milk-constituents (Milchbestandtheile) were always found at the place of injection.

Another series of experiments was on dogs that had been bled largely. They were found to tolerate injections of small quantities of milk, but after large injections they died, and often on the operating-table. When, after great loss of blood, the heart-sounds became very weak, almost inaudible, they became loud and distinct again immediately after the injection. He next bled animals until respiration and circulation had completely ceased, and then injected milk into their veins. At once rhythmic contractions of the heart, which could be felt, recurred, and soon respiratory movements reappeared. When, after a short time, these ceased, they could be again excited by a second injection, and some of the dogs even barked. Whether this restoration of the heart's action was due to an excitation of the nerve-centres or to a purely mechanical irritation of the organ, is as yet undetermined.

Prof. Thomas says of his second case that when the first injection was made the patient was fairly moribund, and that at each subsequent injection it was the unanimous opinion of all who saw her that death was inevitable within a very brief space of time. It was thought that her life was *prolonged* at least six days by the five intra-venous injections of milk. The quantity used in the first injection, in this case, is not stated, but fifteen, twelve, six, and eight ounces were used in the last four. The third case reported simply proved that milk injected into the circulation was innocuous.

It will be seen that the results obtained by Prof. T. in practice, and by Dr. W. in the laboratory, agree; but the latter holds that as relatively small quantities only can be safely injected, as these induce only a very transitory relative increase of the colorless blood-corpuscles; and as on the other hand the injection of large quantities leads to the formation of emboli in the lungs, which are never caused by the transfusion of blood; and as, finally, we can, when it is at all possible, re-excite the heart's action by harmless means, we cannot rely upon intra-venous injections of milk as the last resort. He thinks that these cannot take the place of blood-transfusions.

*Per contra*, Prof. Thomas considers that injection of milk into the circulation in place of blood is a perfectly feasible, safe, and legitimate procedure; that it is infinitely easier to perform than transfusion of blood; and that its use should not be limited to cases in which profuse and exhausting hemorrhages have occurred, but recommends it in certain cases of typhoid fever, pneumonia, cholera, etc. In this connection allow me to quote the following from a recent paper by Prof. S. G. Armor:

"In many cases of local inflammatory diseases (not dangerously involving vital organs) the patient often dies. I doubt not, from failure of heart-action, before the local disease can run through its natural history. In all such cases TIME becomes an important element of cure, and the way to get such time is to guard well the 'dead point of danger'—a weak and failing heart."—(Proceedings of the Medical Society of the County of Kings, February, 1878, p. 360.)

We may consider that *shock* enters largely into this tendency to death; could time be gained this shock or condition of collapse might pass off and life be saved. Again, it may aid in the detection and punishment of crime: life might be prolonged sufficiently to allow the victim of an assault to identify his assailant. It may also be applicable in cases of poisoning. George Eliot has already made use of this idea in her story of "The Lifted Veil," published in 1859, in which we are told of a wicked lady whose guilt was brought to light by the experiment of transfusing blood into the heart of a person just dead, who revives for an instant and denounces her.

In the discussion which followed the reading of Prof. Thomas's paper, Dr. Jacobi said that cow's milk, when introduced into the human circulation, should be a little more alkaline than it is naturally, and suggested that it should be made so by the addition of carbonate of soda. A year ago I suggested to Dr. Wulfsberg, with the idea of obviating the possible formation of fat-emboli, that the milk should be saponified by the addition of water of ammonia, so as to break up the globules. As Dr. W., in his investigations, did not find fat-emboli, it is probable that this reason for the use of ammonia is worth nothing; but, as the water of ammonia has been found not dangerous when injected in cases of snake-bite, and as stimulation is usually indicated when intra-venous injection



tion is required, and for the purpose of producing an alkaline reaction in the milk, as advised by Dr. Jacobi, I repeat the suggestion here.

I have seen or heard somewhere the statement that when the blood of one of the lower animals—cow, sheep, or goat, for example—is injected into the human blood-vessels, the red corpuscles of the injected blood, from the different quality of the human blood, lose their vitality and are soon thrown off as effete material. If this be true, it follows that the fresh, warm, alkaline milk of the cow is a safer article to inject into human veins than her own blood, or that of a sheep or lamb—safer, most probably, than any other fluid except human blood.

Pardon the length of this communication, and believe me most respectfully, etc.,

J. S. PROUT, M.D.

167 CLINTON ST., BROOKLYN, N. Y., May 3, 1878.

## THE TREATMENT OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The communications in your journal, from Drs. Billington, Rodman, Willard, and Mundé, have interested me considerably in the subject of "The Treatment of Diphtheria," and the idea kept recurring to my mind while reading their articles on the subject, that somewhere, lang syne, I had read where a German physician had used the tinct. ferri chloras and glycerine mixture, in something near the manner practised by Dr. Billington *et als*. After searching through my little collection of medical journals, I found the article I had read, and thinking it might not prove uninteresting to your readers, I will give you the language of the article, which I find in *The Southern Medical Record* for September, 1871, on page 480, viz.:

### "SESQUICHLORIDE OF IRON AND GLYCERINE IN DIPHTHERIA AND CROUPOUS AFFECTIONS.

"Prof. Clar (*Practitioner*, July 1, 1871, from the *Wien Medizin Zeitung*, No. 19, 1871), having experienced the advantages from the application of the best anhydrous glycerine (of Sarg) in various catarrhal and slight croupous and diphtheritic affections, met with some of a much more severe type, which led him to add the sesquichloride of iron to the glycerine with excellent results.

"The method of treatment he adopts, varying of course with individual peculiarities, is the following: He first prescribes a gentle aperient, either in the form of a manna draught, or of a few grains of calomel, which last he holds to be a powerful antiphlogistic remedy, and, when properly used, of great value. Coincidentally he directs cold compresses or cloths to the neck and head, or even to the chest, carefully renovated in accordance with the elevation or depression of the temperature, cold or iced water being at the same time given as a drink, and then commences at once the use of iron-glycerine, which consists of two ounces of anhydrous glycerine, and twenty drops of the liquor ferri sesquichloridi. Of this mixture, half a teaspoonful is to be given every half-hour throughout the day and night. As soon as the symptoms appear to be mitigated, the quantity is diminished to a teaspoonful every second hour, and in the intermediate period, with the object of dissolving the exudate, a mixture composed of glycerine, two ounces, borax, twenty grains, is similarly given by a

teaspoonful at a time. The iron-glycerine is progressively given at longer periods, and is gradually replaced by the borax-glycerine."

With the exception of the application of the cold compresses, I have tested this treatment in a few cases of what I called membranous croup, with very gratifying results. I have been especially pleased with the prompt and certain action of the borax-glycerine in dissolving the exudate.

Injected into the nose, where the diphtheritic exudation extends to the mucous membrane of the posterior nares, the borax-glycerine mixture will, I believe, be found to act with more certainty, and will give better results as a solvent of the false membrane, and alternative to the diseased mucous surfaces, than most of the complex, shot-gun prescriptions, usually made use of for that purpose.

And if diphtheria is primarily a local disease, and the constitutional symptoms are the result of the absorption of septic matter, the antiseptic properties of borax and glycerine would prove of no mean value in destroying the poison already generated, preventing the further production of septic germs and the systemic poisoning resulting from their absorption. In a word, would prevent septicæmia by destroying the germs—nipping infection in the bud, wherever it is applied faithfully and freely, so that no part of the diseased tissue shall be overlooked.

This treatment, resorted to early, promises as good results in preventing constitutional symptoms as any treatment recommended, is simple, easily given, and to my mind rational. Where constitutional symptoms have developed, this treatment will still be found good as far as its action as a germ destroyer, alternative and solvent of the exudation is concerned. In this country, however, we are accustomed to giving the sulphate of quinia in tonic or antiperiodic doses, owing to the indications for its use. I have never found it necessary to use alcoholic stimulants, but may be under the necessity of doing so in the next case I have to treat. We must be guided by reason, and the lessons taught us by our every-day experience in the treatment of disease, and not be too much wedded to our theories. I think it would be criminal in a physician to withhold stimulants, when the symptoms indicated their use, because of his theoretical disbelief in their utility in a certain disease.

Very respectfully,

J. N. BOYD, M. D.

COOPER, TEXAS.

THE FIRST OVARIOTOMY. — From an article by T. Spencer Wells, F.R.C.S., in the *British Medical Journal*, it seems that that distinguished authority was in error when, in his work on "Diseases of the Ovaries," he ascribed the first successful ovariectomy in Italy to Prof. Londi, of Pisa, September, 1868; the second to Prof. Peruzzi, of Lugo, and the third to Dr. Marzolo, of Padua. Although the operation had not been performed in Italy for half a century when Londi undertook it, it appears that Dr. Emilioni, of Faluza, a provincial surgeon, successfully extirpated an ovary in 1815, in a married woman twenty-six years of age, who had produced a scirrhus tumor of that organ by resting the edge of a heavy pan of water against the abdomen. The extirpated ovary is now in the museum of the Medical Society of Bologna—a pyriform mass of scirrhus degeneration, nine centimetres long by five broad, preserved in alcohol.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 28 to May 4, 1878.*

PAGE, CHAS., Major and Surgeon. Granted leave of absence for fifteen days. S. O. 36, Dept. of the Platte, April 27, 1878.

RANDOLPH, J. F., Major and Surgeon. Relieved from duty in Dept. of the East, to proceed to his home and report his arrival by letter. Authorized to remain there on monthly certificate of disability until his health is sufficiently restored to resume duty. S. O. 90, A. G. O., April 26, 1878.

YEOMANS, A. A., Capt. and Ass't Surgeon. To proceed to Fort Griffin, Texas, relieve Ass't Surgeon D. G. Caldwell, receipt to him for all property, and, upon completion of this duty, return to Ft. Richardson, Texas. S. O. 89, Dept. of Texas, April 25, 1878.

TERRILL, H. S., 1st Lieut. and Ass't Surgeon. Relieved from duty at Ft. Clark, and assigned to duty at San Felipe, Texas. S. O. 90, Dept. of Texas, April 26, 1878.

COMBES, E. T., 1st Lieut. and Ass't Surgeon. Relieved from duty at San Felipe, and assigned to duty at Fort Clark, Texas. S. O. 90, C. S., Dept. of Texas.

PERLEY, H. O., 1st Lieut. and Ass't Surgeon. Granted leave of absence for one month, providing he furnish proper medical attendance, at his own expense, at his station, Ft. Pembina. S. O. 49, Dept. of Dakota, April 25, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 4, 1878.

| Week Ending          | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Méasles. | Diphtheria. | Small-pox. |
|----------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| April 27, 1878 . . . | 0             | 6              | 79             | 3                          | 64       | 49          | 1          |
| May 4, 1878 . . . .  | 0             | 4              | 60             | 2                          | 55       | 41          | 0          |

CONTAGIOUSNESS OF SCARLET FEVER.—Dr. J. M. Ward, of Cornelia, Missouri, writes: "Dr. C. E. Billington says in the March 25th number of MEDICAL RECORD that 'the earliest fact in the clinical history of scarlatina is the contagion. While this is exceedingly subtle, permanent, and capable of being carried to great distances, it is at the same time known to be uncertain in its effects.' Wilson says that the cause is a contagion apparently identical with rubeola. Flint says that it is probable that its causation always involves contagion. Now, in the face of the above authorities I must say, that with an observation of some 200 cases I never have seen a case that has shown any evidence that the disease is any more contagious than cholera, diphtheria, or erysipelas. That it is contagious I do not believe, but it may be infectious. The cause must be atmospheric, and the same cause that induces one case may cause forty. With the atmospheric influence operating, and added to the exhalations from a case of the disease, there is stronger action, the same as in diphtheria or erysipelas, and calls

for isolation as a prophylactic. Scarlatina is not amenable to the law of contagion, which implies that all unprotected persons will, as a general rule, take the disease on exposure, and that it is propagated in no other way than from an affected person. Rubeola, variola, and parotitis are examples of contagious diseases that conform to that law, and scarlatina is an exception. In the epidemics of scarlatina that I have witnessed, the extent of territory has been limited, while the outbreak was simultaneous in several families who had no communication with each other, and in a rural district. I take stories of the contagion of this disease 'cum grano salis.' For instance, a child died, and the clothing years after communicated the disease, or a letter from a family who had it did the same in a distant part of the country. Is it probable that such statements are true cases of contagion, when you can get no such effect at the time the disease is prevailing in a locality outside of the atmospheric cause, with possibly an added infection from cases of the existing disease? No matter how strong the infection, a large number escape altogether, as Dr. Billington has shown, where he tabulates 100 children in families that had scarlatina in the family, and 43 were affected and 57 escaped, or about as many affected as you might expect of chills in a district strongly malarious. To say that it is not as contagious as rubeola, but that it is the most subtle of all contagions, appears contradictory, and to explain such an anomaly will necessitate a hunt for a cause other than contagion. Both erysipelas and scarlatina seem infectious by contact when the soil is as congenial as in a puerperal woman,\* but that don't establish that either are propagated by contagion solely. My impression is, that the scarlatina poison is primarily in the atmosphere and being inhaled, the disease becomes constitutional before there is any local manifestation anywhere. The results of observation make authority, and my observations lead me to discredit the idea that scarlatina is propagated by contagion."

DR. FORDYCE BARKER.—The Board of Trustees of Columbia College did a graceful thing, which will cause great satisfaction in many and widely different circles. They conferred the degree of LL.D. upon Prof. Fordyce Barker, of this city, by a unanimous vote. It is so rarely that such an honor is so deservedly conferred, that the profession at large can take it as a general compliment.

AMERICAN MICROSCOPICAL SOCIETY.—At the Annual Meeting of the American Microscopical Society of the City of New York, held Tuesday evening, March 26th, 1878, the following officers were elected for the ensuing year: President, John B. Rich, M.D.; Vice-President, William H. Atkinson, M.D.; Secretary, O. G. Mason; Treasurer, T. d'Oremieux; Curator, John Frey.

AMERICAN MEDICAL ASSOCIATION.—The Chairmen and Secretaries of the several Sections of the American Medical Association are requested to send in (by title) the papers to come before them, with the time required for reading; also all gentlemen having papers to present, not referable to the Sections, will send as above, without delay, to

THOMAS F. ROCHESTER,  
Chairman of Committee of Arrangements,  
Buffalo, N. Y.

\*Dr. M. M. Pallen reported a case of puerperal diphtheritis occurring during an epidemic of that disease, but he does not state that the attending physician had been treating diphtheria prior to her confinement.



## Original Lectures.

### ON GONORRHOEA.

A CLINICAL LECTURE DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, CITY OF NEW YORK.

By F. N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

• (Reported for THE MEDICAL RECORD.)

#### LECTURE I.

GENTLEMEN:—To day we enter upon a consideration of the third and last in the list of venereal diseases alluded to in the opening lecture of our course, viz.:

#### GONORRHOEA.

Gonorrhœa is a vicious, non-specific, contagious, inflammatory disease of the mucous membranes.

It is characterized by free purulent secretion without ulceration, occurring chiefly in the mucous membrane lining the urethra in the male, and the vagina and urethra in the female; and occurring exceptionally in the mucous membrane of the rectum.

By transference through *mediate* contagion from these points, the disease may be conveyed to the mucous membrane of the eye.

The occurrence of conjunctival gonorrhœa is by means of *mediate* contagion; that is to say, by the application of the poison through some intermediate substance, as the fingers, sponges, cloths, etc. This is one of the gravest accidents that can occur in consequence of gonorrhœal affection.

The transfer of the disease in the same manner to the nares and to the mouth is alluded to by authors, but I have never seen such cases, and believe they are so rare that, practically, we need not give them much consideration.

This disease is termed *vicious* on account of the acuteness of its onset, as compared with idiopathic or traumatic inflammation of mucous membrane, and from the greater disturbance, local and general, which marks its course.

It is termed *non-specific*, because it is capable of being originated by a variety of causes quite independent of a gonorrhœal origin, and even of the venereal act.

This is an important statement, but one which is capable of thorough substantiation by clinical proof, as will be shown hereafter. It is however, as a matter of course, denied by those claiming a specific venereal virus as the essential, the one sole efficient agent in the establishment of a true gonorrhœa.

The disease is called *contagious* and *inflammatory*, because pus, the product of this variety of inflammation, when brought in contact with sound mucous membrane, sets up in it at once an inflammatory process of a similar character.

It is usually communicated through illegitimate venereal contact; yet a similar inflammation of mucous membrane, producing pus which possesses equally the element of contagion, may arise from causes purely inflammatory. Thus, mechanical irritation, caused possibly by the introduction of a urethral sound, may set up an inflammation producing a purulent secretion, which, when brought in contact with healthy mucous membrane, will develop a disease in no respect different from acute gonorrhœa the result of venereal contagion.

Allow me to relate a case which bears upon this point. Some four years ago, a gentleman came to me, suffering from irritation at the neck of the bladder, as evidenced by discomfort in that region, and also a certain amount of irritation in the glans penis. He was a man entirely above suspicion of illegitimate venereal indulgence. He was under my direct observation for at least four or five months, before I came to the conclusion that his difficulty was dependent upon the influence of a contracted meatus urinarius. I had already made a thorough examination with reference to the presence of stone in the bladder and prostatic enlargement, and found neither. I incised the meatus so that the contraction was completely removed, and with it immediately, to my great satisfaction, the frequency of micturition ceased, and all sense of discomfort disappeared. The only after-treatment necessary was in keeping the opening patent. An ordinary sound was introduced some four or five times. The case was doing very well. But the gentleman had a large business to look after, and, finding it exceedingly inconvenient to come to my office, begged the privilege of using the sound himself. I objected, and yet yielded to his wishes, inasmuch as I did not see why he should not be able to perform the operation, if a reasonable amount of care was exercised. I gave him a *new* instrument, a solid glass rod of proper size and shape, and directed him to pass it well through the meatus every morning, and to do it carefully.

At the end of about a week he came to me with his penis considerably swollen and inflamed. A slight muco-purulent discharge was exuding from the meatus.

In reply to my inquiry he stated that he found some difficulty in introducing the instrument, that this increased daily, until finally, "determined not to be beaten by it," he had carried it in with some degree of violence. The condition which his penis presented was the result. Nothing could be more certain than that this inflammation was the result of mechanical violence. The inflammatory action increased and extended as in an ordinary gonorrhœa resulting from an impure venereal contact, and finally involved the deeper portions of the urethra. He was even threatened with prostatic abscess, but after confinement in bed at least four or five weeks, he recovered with slight remaining discharge. This discharge continued for some time; it was exceedingly slight. Thus far the case would have been placed under the head of ordinary simple urethritis, which by many is considered as entirely different from gonorrhœal urethritis, and especially so as lacking the element of contagion.

During the summer the discharge from the meatus disappeared almost entirely, and under the impression that there was no danger of communicating his disease, he had a single connection with his wife.

About two weeks after, the wife came to me, suffering with a well-marked, acute *vaginitis* which had extended to the urethra. She was a lady over fifty years of age, and entirely above reproach. To my mind, there was no doubt whatever but that she acquired the disease from her husband, whose disease was of traumatic origin. The result of this intercourse was a disease which could not be distinguished from that which is acquired from a known gonorrhœa. I have, besides, seen several cases which, equally with the one now related, go to prove that a contagious secretion from mucous membrane may be present as the result of simple causes wholly independent of contagion.

# GONORRHOEA IDENTICAL WITH INFANTILE LEUCORRHOEA.

Another cause of an inflammation of mucous membrane, which does not vary in any practical degree from gonorrhoeal inflammation, is infantile leucorrhoea. This is recognized by all authorities as a contagious disease of the mucous membrane. A similar vaginitis may be communicated from it to other children, when the same sponges or bathing-cloths are used, and an ophthalmia is not rarely set up by means of it, which cannot be distinguished from true gonorrhoeal ophthalmia.

This form of leucorrhoea is caused, as generally believed, by irritation in a contiguous organ, the rectum. It has also been attributed to the irritation produced by teething. But, whatever the cause may be, an inflammation is set up in the vagina of the infant, which produces a discharge that cannot be distinguished from a gonorrhoeal discharge, and which may communicate a similar disease.

Some time since a lady called upon me, accompanied by her little daughter (between nine and ten years old). She stated that the child was suffering from a *bad disorder*, which she believed had been communicated by a young man, intimate in the family, who had been in the habit of playing with the little girl. The visit to me was for the double purpose of obtaining relief for the child and securing some advice as to the way of punishing the young man. On examination the vulva was seen intensely reddened, and bathed in a profuse, greenish, purulent discharge. The hymen was perfect, with no sign of injury. The integument around the anus was irritated as if by scratching, and great itchiness in the vicinity was complained of. The rectum was found loaded with ascarides. The cause of the leucorrhoea was thus satisfactorily explained without implicating the young man. Suppose, however, the youth had been subjected to an examination, and had chanced to have an old gonorrhoea—the probabilities would have been greatly against his being able to establish his innocence before any jury.

Here we see that the question as to the specific character of gonorrhoea may become of first importance from a *medico-legal* point of view.

## GONORRHOEA PRODUCED BY INJECTIONS.

During my term of service as Resident Physician on Blackwell's Island, twenty-five years ago, several experiments were made with reference to the question of the causation of gonorrhoea by other means than by contact with gonorrhoeal discharge. At the instance of Dr. William Kelly, Physician in Chief, various materials were injected into the urethra of healthy individuals, but without satisfactory results, so far as producing gonorrhoea was concerned. Finally, the experiment was made with pus taken from the eye of a child suffering from acute ophthalmia, and a virulent gonorrhoea was established, which continued for four or five weeks, and was attended by the ordinary complications of gonorrhoea, oedema, chordee, etc. Here certainly the disease was produced entirely independent of gonorrhoeal contact.

## GONORRHOEA PRODUCED BY THE DISCHARGE ACCOMPANYING STRICTURE.

There is still another cause of gonorrhoea that must be mentioned, in order to make this part of our subject complete.

It is a very important fact that a discharge which does not at all differ from true gonorrhoea may arise through contact with the discharge produced

by the mechanical irritation incident to *stricture of the urethra*.

A man who has a stricture, but has had no discharge whatever from the urethra for several years, is suddenly placed in circumstances under which an unusual amount of excitement is present in the circulation of that locality; for example, he gets married. A few days after marriage—and I am not now drawing upon general experience or imagination, for I am relating the history of a real case—the man discovers that he has a discharge from his urethra precisely similar to one of his early gonorrhoeas. Naturally enough, he does not associate the presence of the discharge with the fact that he had disreputable connection, followed by disease, some years previously. The only explanation which seems possible is, that it has been contracted from his bride. He becomes greatly excited, but before openly disgracing the apparent criminal, he goes to his physician to secure a trustworthy witness of her guilt. The physician, however, knowing of certain wild oats sown in earlier life, tells him to pause before he concludes that his wife has been unvirtuous. An examination is made, and unmistakable evidence of *stricture* is found. The conclusion is readily reached that it had been in existence for some time. This becoming appreciated as a sufficient cause of the trouble, the man at once gives up all suspicion regarding the impurity of his wife.

Within a few days, however, the *wife* begins to complain, and very soon has a sharp attack of vaginitis, and then comes her turn to enter complaint. The discord, however, is finally harmonized through an understanding that the original difficulty with the husband had been acquired several years before. The fact which I wish to make clear is this: that by excess in drinking, sexual intercourse, mechanical irritation, etc., a simple purulent discharge may be elevated to the point of contagiousness; that when raised up to that point it is no longer simple, and will communicate gonorrhoea when brought in contact with healthy mucous membrane.

## INFLAMMATION OF MUCOUS MEMBRANE.

Before proceeding farther with our subject, it will perhaps be interesting to study the subject of inflammation of mucous membranes somewhat in detail.

Mucous membrane is made up of several layers: the uppermost or epithelial, the basement membrane, and the areolar tissue layer. In the mucous membrane of the urethra the epithelium is chiefly in the form of laminated scales, and the secretion which is associated with it is the result of the gradual development of this scaly layer. Formative germinal cells come up laden with germinal juices, which, as the cell develops into the epithelial scale, exude and lubricate the canal, thus protecting it from the action of the acid secretions that pass over its surface. This is the natural process by which the fluid is obtained that is necessary for lubrication, and the quantity in health is never sufficient to constitute a discharge. Any discharge from the urethral mucous membrane is pathological, with a single exception, and this is the slight transparent exudation from the meatus urinarius, which sometimes comes on through venereal excitement. In the normal development of the epithelial layers there is just enough material furnished for the gradual development of the germinal cell into the complete epithelial scale. But set up an irritation, and nature responds to such irritation by sending up an excessive supply of "pabulum." The upper layers of cells are detached with greater rapidity than in health,



there is consequently an increased quantity of mucoid or lubricating material thrown out, and we have the first signal that a pathological process is coming on. This process continues, and within a short time the germinal cells appear upon the surface of the mucous membrane as a discharge. If you examine a urethral secretion when inflammation is present, you will find it to consist largely of cells which to all appearances are the same as the white blood-corpuscles. They are not normal white blood-corpuscles, however, but cells which have been emasculated by too rapid development. They retain the power of proliferation and movement, but they are incapable of elevation into useful tissue, and finally emerge from the urethra as a discharge that is called pus. These cells may appear in such quantities that we see them as a profuse discharge, and in the highest stage of the inflammation this discharge has a greenish color, which indicates the additional presence of red blood-corpuscles.

Beale says that when this inflammatory process has gone on for a little time, a kind of proliferation of cells takes place upon the surface in addition to those which come up from the tissues beneath, and that the rapid disintegration of material produced in this manner gives rise to the infective element of the discharge. Cells thus proliferated constitute what he terms *disease germs*, and he claims that they may be produced in this manner, that they retain life with great tenacity, and may be carried for a long distance, and yet when brought in contact with a healthy mucous membrane, will set up an inflammation of like character as that from which it originated. Whether this view is correct or not (and we will consider it at a later period), we have sufficient knowledge to state that pus, under certain circumstances, becomes highly irritant and contagious; that a mild form of inflammatory product may become changed to that which is contagious. The theory advanced would certainly explain the contagious character of gonorrhœa, and also the different varieties of the disease with which we meet.

You will remember that last week a man came before us who had a profuse purulent discharge from the urethra. That discharge was acquired through venereal contact about five or six days before his visit here.

On questioning him, it was found that he did not suffer from pain at all, and that except for the discharge, he was not able to say there was anything the matter with him. At the time I called your attention to the fact that it was one of the milder varieties of gonorrhœa. There was, perhaps, no question regarding the origin of the disease, and yet I doubt very much whether that discharge would, if placed in contact with healthy mucous membrane, have communicated gonorrhœa. The grade of inflammation was low, and so low, that it is a question whether its products were capable of establishing an inflammation of like character. But let that man go on a drunken spree, or have excessive sexual intercourse, you would find that his discharge would become painful. If, then, it was brought in contact with healthy mucous membrane, you would see developed a corresponding discharge, and an active contagious property would be present. There are, therefore, two varieties of the affection: 1. That in which there is a slight, painless, purulent secretion. 2. That in which a higher degree of inflammatory action is present, which gives rise to pain and a greenish purulent discharge.

A man may come to you complaining of an almost white purulent discharge, and at the same time saying that the connection had been with a woman whom

he knew to be free from gonorrhœa. Perhaps the additional statement will be made that she was suffering from the "whites," or that she had just completed her menstrual period. If you do not interfere with the discharge, it will disappear within four or five days, as a rule, and the man will be well. But the trouble is that, as soon as a man sees a drop of pus at the meatus urinarius, he goes to a doctor, who attempts, in very many cases at least, to abort the gonorrhœa. A solution of nitrate of silver is employed as an injection, and if that is kept up for four or five days, a sharp urethritis is usually established. I do not believe there is any such thing as aborting true gonorrhœa. Gonorrhœa runs its course, and lasts about four weeks, and any urethral discharge that exists for a less period, I should be willing to say was not gonorrhœa.

I have seen a large number of urethral strictures, and I have made it a point to look up their origin, and to learn concerning the disease which gave rise to them, how the gonorrhœa was acquired, and how it was treated. I have not yet found a single case, which recovered within four weeks, where the symptoms were such as to convince me that the patient suffered from a gonorrhœa *that had been acquired from a gonorrhœa*. In every instance in which the evidence was positive upon this point, the gonorrhœa has lasted at least *four weeks*. There are many cases of gonorrhœa in which the patient, on account of his youth or extreme modesty, neglects to seek professional advice, and yet these very ones pass through their trouble in about the same time as those who avail themselves of eminent professional service. I do not give much credit to the plans which have been brought forward for shortening the duration of the disease, be the treatment what it may. Treatment may aggravate the case, and it may also make the patient much more comfortable than if the disease is left to pursue an unmodified course. The urine can be made less acid by a variety of means; the distressing symptoms, such as chordee, etc., may be relieved; but as to cutting the disease short, I do not believe that it can be done.

## HEPATIC CYST.

CYST OF BROAD LIGAMENT AND ABSORPTION OF CONTENTS—ANTEFLEXION FOLLOWING ABORTION.

A CLINICAL LECTURE,

By T. GAILLARD THOMAS, M.D.,

AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

### HEPATIC CYST.

GENTLEMEN:—I have the pleasure of bringing before you to-day one of the most interesting cases that we have seen during our whole course this winter. The patient comes from Pennsylvania, and it is to the kindness of Dr. P. F. Mundé, of this city, that I am indebted for being able to present her to you, since he has prevailed upon her to come here to-day in company with her regular medical attendant. She unfortunately speaks no English, but her physician will kindly put us in possession of all the necessary facts in the history of the case.

The patient's name is Laura F., a native of Germany, and thirty-one years of age. She has been married six years, and has had three children, but no miscarriages. Her last child was born thirteen months ago, and the duration of her present trouble is nine months. About nine months ago, her physician informs me, she first noticed a swelling in the right hypochondriac re-

gion. From the situation and character of the tumor, which was, perhaps, of the size of a goose-egg, he concluded, very naturally, that it was the distended gall-bladder. She had some trouble in her digestion, being obliged to take food frequently, as she was able to eat only a small quantity at a time, and complained of great pain at the time of her menstrual periods.

Previously she had been perfectly healthy in every respect. After that the doctor did not see her until a comparatively short time ago, and he then found that the tumor had enormously increased in size, and that the woman was not as strong as formerly.

To-day we find the enlargement, whatever its character, to be of the size of a pregnant uterus at the end of seven and a half or eight months, as I can show you through the patient's clothing. The chief point in connection with the case is, of course, to decide what this tumor is, and on that another depends: When we have ascertained its true character, what treatment shall we adopt for it? Its general appearance is that of an ovarian cyst, but we will not jump at any conclusion. I shall make the diagnosis very carefully here, for the reason that I believe this to be a form of cyst which is very rare, and which is very different from an ovarian cyst, and therefore it is important that you should get the characteristics of the case strongly fixed in your minds.

When you see such an abdominal enlargement as this, a number of ideas as to what it may possibly be at once present themselves. Let us now take up briefly some of the forms of enlargement which it might be, and in doing so we will omit certain extremely rare kinds of abdominal tumor.

First of all, I have no doubt the idea of pregnancy occurs to you. It is thirteen months since the patient's last child was born, and so it is altogether possible that another fetus may now be at full term.

Again, it might be an ovarian cyst, and, as I have said, it presents very much, indeed, the appearance of one.

Then, again, it might be a uterine fibroid.

Next, it might be due to abdominal dropsy.

In the next place, it might not be a tumor at all, but simply an accumulation of fat in the abdominal walls.

Still further, it might be due to tympanites.

In examining whether the enlargement may not be dependent on some one of the several conditions suggested, let us begin with the last—tympanites. The question of tympanites is at once definitely settled by resorting to percussion over the surface of the tumor. When this is done, we find that there is everywhere the most complete dullness, amounting to absolute flatness; and we can therefore safely conclude that we have to deal with some body which is certainly not aeriform in character.

An immense mass of fat has been mentioned as a possible explanation of the tumor here present. I once performed ovariectomy in a case in which the diagnosis was somewhat obscure in certain respects, and when the incision was made into the abdomen I found a deposit of fat at least four inches in thickness in its walls. But if there were a mass of fat, it would be superficial, so that by grasping the abdominal walls deeply with the fingers, we could get under it, which is found to be impossible here. Then, again, great obesity would scarcely be suspected from such a history as has been given of this patient.

Now, let us see whether the diagnosis of pregnancy will stand the test of physical exploration. I examined the uterus thoroughly by conjoined manipula-

tion, and finding it entirely undeveloped, apparently, ventured to introduce the probe, when I ascertained that it passed easily to the fundus, and that the canal of the organ was only of normal length. In addition, the woman has continued to menstruate regularly every month.

Might it not be a uterine tumor? Probably not, because we have been able to map out the size and shape of the uterus, and are able to move the organ freely about by means of the uterine sound without producing any effect upon the tumor. Then, uterine tumors are almost always solid in character, and here we get a distinct sense of fluctuation.

Is it ascites? Suppose you place some intestines in a tub of water. They will at once rise to the top. So here, if we had ascites, and the woman were lying on her back, the intestines would float on top. But listen to the percussion-note on the site of the tumor. There is perfect flatness everywhere, while upon the left side, on the contrary, there is well-marked tympanitic resonance. We must, therefore, exclude ascites. It is true that localized peritonitis will occasionally shut up fluid in some particular part of the abdomen, surrounding it with a wall of lymph. In such cases a differential diagnosis between this condition and ovarian cyst is often exceedingly difficult, and one might almost be considered excusable for opening the abdomen with a view to performing ovariectomy; but still, such a mistake will seldom be made if all the means at our disposal for making the diagnosis of ovarian disease are employed.

From the physical characteristics of this tumor we can decide with considerable certainty that it is a fluid cyst of some sort. We have ascertained by means of the sound that it is entirely distinct from the uterus. Is it then an ovarian cyst? Such was my impression when I first saw the tumor; but, on making a careful examination, I found two points in connection with it which militated very strongly indeed against such an hypothesis. The first was, that I was utterly unable to feel the tumor with the finger in the vagina. The force of gravitation usually keeps the inferior part of these ovarian growths low down in the pelvis, where, of course, they originate. The second point was that, on making percussion carefully up and down the abdomen, on the side of the tumor, I was able to make out a distinct area of resonance between the latter and the position of the ovary. Then, besides, it is a very rare thing to find an ovarian cyst localized like this. They are forced by the muscles wherever there is the most room for them, and so they are almost universally found in the middle of the abdomen, though always commencing in the side.

When I found that it was not an ovarian cyst, my next thought was that it was one of those localized peritoneal dropsies of which I have spoken. But I soon found that it was movable to a certain extent (though not very freely), which would not have been the case with such a collection of fluid surrounded by walls of inflammatory lymph; and then there has been no history whatever of any attack of peritonitis, either general or circumscribed.

The next thing that will probably occur to you is that it is a renal cyst. Several cases of tumor of this description have been cut down upon, under the idea that they were ovarian, even by men of the most distinguished reputation. It is certainly possible that this may be the diagnosis here, though I think it is not probable.

The question still comes up, therefore, What then is it? There is still another kind of cyst of which I have not yet spoken, and that is the *hepatic cyst*, the



growth being connected directly with the liver itself. It is so exceedingly rare, however, that it is scarcely mentioned in medical literature at all. A professional friend of mine, who is admirably qualified to do so, has looked up the subject very carefully in the books and journals, and has been able to find almost nothing in regard to it. I do not, of course, now refer to the hydatid cyst of the liver, which is well known, but am speaking of the pure hepatic cyst. That it is a condition which we may be liable to meet with occasionally, however, is certain. Not long since a young surgeon in a neighboring place told me that he was about to perform his first ovariectomy, and a short time afterwards I learned from him that when he had opened the abdomen he found both the ovaries perfectly healthy, but that there was an enormous cyst of the liver, in which there was nothing whatever like hydatids.

I think I am therefore justified in suspecting the presence of an hepatic cyst in the present instance, and in order to derive what assistance we may from an examination of its contents, I have drawn off a small quantity of the fluid by means of the hypodermic syringe. You observe that it is opaque, and of a strongly marked yellowish color; and Prof. Dalton has pronounced it to contain the coloring matter of the bile (not bile itself, you understand, but its coloring matter, at all events). You see the reaction with nitric acid upon this plate. I do not think it can be a hydatid cyst, as there have been none of the features of this condition present. I take it to be an hepatic cyst which is very close to the gall-bladder, and whose contents have, therefore, become tinged with its coloring matter. It seems probable that a process of exosmosis has taken place. It could not be the enlarged gall-bladder itself, for it is impossible that that should become so enormously distended. One other point corroborative of the supposition of the cyst's being connected with the liver is the fact that, on percussion, there is no line of resonance whatever between the liver and the tumor, there being one continued area of dulness from the upper border of the liver to the lowest point of the growth; while, as you remember, there is a line of resonance between the latter and the pelvis. In addition, I find that the left lobe of the liver is very large and prominent, so that it can be mapped out with great distinctness, and the hand slipped under it, as is usually the case when there is a large fatty liver. It would, at all events, indicate some diseased condition of the organ.

Having at length arrived at a probable diagnosis, we come now to the subject of treatment. Is anything to be done for this patient, and, if so, what? It seems to me that some interference will have to be practised in the case, from the fact that the cyst is increasing in size so rapidly. But, at the same time, any operation like that for ovarian tumor is out of the question. If this growth is an hepatic cyst, it is not at all likely that it can be removed with safety to the patient. In ovarian cyst, drawing off the fluid is no longer resorted to by any one as a sanative procedure. *Puracentesis ovarii* is only of service as an aid to diagnosis and as a palliative measure for the relief of certain urgent symptoms. But here I think we might perhaps draw off the fluid with advantage. Is there no danger in such an operation? you ask. Yes, there is great danger from the escape of fluid into the peritoneal cavity, for fatal peritonitis might easily result from this cause. You know that of late years gastrotomy has been several times performed; and you have probably all heard of the celebrated case of M. Labé, of Paris, in which a silver fork was extracted

from the patient's stomach by this means. Before drawing off the contents of this cyst, I should advise that an inflammatory adhesion should be effected between the parietal and visceral layers of the peritoneum, in the same manner as was done in these cases, in order to prevent the fluid from escaping into the peritoneal cavity. This might be accomplished by means of a slough of the abdominal walls caused by the application of nitric acid; or, in other words, a nitric acid issue. Through the centre of this the needle of the aspirator could be passed, and it is possible that a single evacuation of its contents might result in the cure of the cyst. If it did not, the operation could be repeated whenever it should become necessary. Of course, no internal remedies will have any effect whatever upon the growth. For me this is an exceedingly interesting case, and I trust it has proved so to you also.

#### CYST OF BROAD LIGAMENT; SPONTANEOUS ABSORPTION OF ITS CONTENTS.

Taken in connection with the above, the next case which I bring before you is also possessed of considerable interest. The patient's name is Mary T. She is twenty-seven years of age, and is a native of the United States. She has been married two and a half years, but has never been pregnant. She states that she has been ill for two years. About the first of December, 1876 (nearly fourteen months ago), she first presented herself at the clinic, and was carefully examined by my assistants, as well as myself. What we then found I now show you upon the blackboard. The fundus of the uterus was pushed far over to the right, and in the left of it there was a distinct tumor of considerable size. The diagnosis of either an ovarian cyst or a cyst of the left broad ligament was made, and the patient instructed to return after some little time had elapsed. Several months after that she was again examined, when it was ascertained that the tumor had not increased in the slightest degree. Ovarian disease was then excluded, and the case pronounced to be one of cyst of the broad ligament. Now, to-day, when she comes back again, it is found that there is absolutely no tumor whatever present. There is nothing extraordinary about this, however, and it only confirms the diagnosis that was determined upon. It is a possible thing for these cysts of the broad ligaments to get well, whether tapping is resorted to or not. Sometimes they are ruptured by a fall, or other sudden accident, but their bursting does not seem to cause any trouble in the peritoneal cavity. The plan of treatment formerly pursued was, to make an incision into the tumor and allow the fluid to empty itself into the peritoneal cavity. So innocuous were its contents that no septicæmia or inflammation resulted, and the wound was at once sewed up. A few years ago I had a case of large growing cyst under my care at the Roosevelt Hospital, which I supposed to be ovarian in character. By means of the aspirator I drew off a quantity of fluid from it, which did not present the ordinary appearance of ovarian fluid, but looked precisely like so much Croton water. From that time the patient went on steadily to a complete recovery. The relation of this case, as you see, is a plea for tapping, and such cysts as this cannot unfrequently be cured by this means. In one case which I knew of, however, suppuration, inflammation, and septicæmia resulted, and the patient died. But this, you must understand, was a very rare exception to the general rule. I have met with no less than three instances in which the cysts have ruptured in consequence of the ordinary manipulations resorted to in

the examination of gynecological cases. The first of these occurred several years ago at my office. While I was making palpation, I felt it hop under my fingers, and it at once completely collapsed. The patient suffered a great deal of pain (which she described as feeling like colic), and after she had remained perfectly quiet for an hour or two, I sent her home in a carriage. Just five years afterwards I had the same accident occur in a precisely similar case; but the results were much more serious. Peritonitis set in, and during the course of the attack the temperature once ran up to the extreme point of 107 degrees. The patient finally got well, but her recovery was very tedious. One month ago a patient came to my office from Paterson, New Jersey, and while I was practising palpation in her case also, I felt the tumor collapse under my hands. She suffered such intense pain that a large quantity of morphia was required to give her ease, and I did not permit her to return home until forty-eight hours had elapsed. After that, however, she had no unfavorable symptoms whatever.

In other cases, like the present, the fluid gradually undergoes absorption, and the patient has no further trouble. Under the circumstances, I am very happy to tell this patient that she is now well—not *cured*, you understand, but well.

#### ANTEFLEXION FOLLOWING ABORTION.

The next case you will soon recognize as an old acquaintance (though the patient herself has never been here previously), for we have seen many like it during the course.

Mary G., a native of the United States, twenty-two years old, and married six years. She has had three children and one miscarriage, and the miscarriage occurred eight months ago. How long have you been sick? "Ever since the miscarriage." (Though I have so often had occasion to do so before, I cannot refrain from once more directing your attention to the fact that the diseases peculiar to women are exceedingly apt to date from a labor or abortion.) Of what do you complain? "Pain in the back, and a bearing-down pain." Is the pain very severe? "It is so bad that I have to have my back cupped sometimes." What else do you suffer from? "Dizziness in the head." Do you have much pain at the time of your monthly sickness? "Yes; very much indeed." (The next question is a very important one in connection with the case.) Did you suffer in the same way before you had this miscarriage of which you speak? "No, I did not suffer at all before that." Do you have the whites? "Yes, very badly."

The history thus obtained shows that this young woman was perfectly healthy up to eight months ago, when she had a miscarriage; and that she has been a confirmed invalid ever since. Among the prominent symptoms of which she complains are back-ache and bearing-down pains. Now, what is meant by bearing-down pains? I must confess that I do not know exactly, as it is a very common expression with women, and may mean almost anything. As a general rule, however, it is understood as conveying the idea of tension or straining. The other principal symptoms are leucorrhœa and dysmenorrhœa.

The walls of the abdomen were unusually lax in this instance, and so, with two fingers of one hand in the vagina and those of the other over the abdomen, I was able to make out the size and position of the uterus with the greatest certainty. I thus found that the uterus was in a condition of marked ante flexion. Now, is this ante flexion sufficient to account for all the symptoms of the case? For me it is quite enough.

But there are some for whose opinion in these matters I have the highest respect, who would say that it has nothing whatever to do with the symptoms complained of. If you asked them what, then, was the matter with the patient, they would probably say that she was suffering from general nervous derangement, or give some other such vague reply. Whatever general nervous derangement she may have, I feel sure that her symptoms will all disappear when the uterus is restored to its normal position. These gentlemen of whom I have spoken will tell you that no such results have occurred in their hands; my experience is widely different from theirs. If a patient complained to me of pain in the shoulder, and on making an examination I should find a dislocation of the humerus, I should certainly think of relieving the patient only by getting the head of the bone back into the glenoid cavity. Now this woman has luxated her uterus, and the only way to cure such patients is to restore the uterus to its normal condition. I have long held this opinion, and the more gynecological practice that I see, the more thoroughly am I convinced that it is the correct one.

In addition to the ante flexion, I find also a laceration of the cervix, and this may possibly have more to do with the leucorrhœa than the former. On making inquiry, I find that the patient has been suffering from leucorrhœa for eighteen months, and that her last regular labor was twenty-two months ago. Although the miscarriage was only at three months, the laceration may have been produced then; it is, however, more probable that it resulted from her last labor, which she informs me was a very severe one. The leucorrhœa would seem, then, to depend in great measure on the condition of the cervix.

On reading the journals, you will be astonished to see how frequently such cases as this are treated for inflammation, without any effort whatever being made to restore the uterus to its normal position. The flexion, however, is the real cause of all the congestion and so-called inflammation, and until that can be corrected, no other treatment will be of any service. If you had a patient whose finger was enormously congested on account of the compression of a tight ring, I am sure that you would remove the ring before you attempted any other treatment; and, indeed, no other treatment would probably be necessary. Relieving the congestion of this uterus will not cure the flexion on which the obstinate dysmenorrhœa complained of depends; but curing the flexion will do away with both the congestion and dysmenorrhœa. It is like removing the constricting ring from the swollen finger. You see, therefore, that the whole matter depends, to a great extent, upon mechanical principles.

The ante flexion was, no doubt, created when the uterus was large and flabby after the miscarriage, and so easily became hurt. Women are usually willing to lie in bed for a considerable period after labor at full term; but after a miscarriage, which is, of course, only a miniature labor, they are very apt to get up almost immediately.

As to the treatment, I should recommend the ordinary methods which I have so often detailed to you, and which it is therefore unnecessary for me to repeat now. In case the leucorrhœa did not then disappear, the question would arise whether or not it were advisable to perform an operation upon the lacerated cervix.

DR. W. B. NEFTEL has been elected Corresponding Fellow of the Gynecological Society of Boston, Mass.



## Original Communications.

## RAPID DILATATION OF THE FEMALE URETHRA FOR THE RELIEF OF VESICAL IRRITABILITY.

By P. F. HARVEY, M.D.,

ASSISTANT SURGEON, U. S. A.

Mrs. L., a married laundress, aged 31 years, has been under treatment for some months for right latero-flexion, associated with chronic endometritis consequent upon subinvolution following abortion in the third month. Three months ago acute cystitis suddenly developed, characterized by alarming prostration, intense burning pain on micturition, and the passage of bloody and muco-purulent urine. The acute symptoms having subsided under treatment, the usual means of relief were tried in vain to control the chronic irritability that remained. By chemical and microscopical examination, numerous pus and epithelial cells, and some albumen were found at various times in the urine. Otherwise it was normal. Topical and constitutional measures conferred no relief whatever. Nausea and vomiting were frequent and distressing symptoms. Constipation of the most obstinate character had existed for months. The uterine trouble had been undergoing satisfactory improvement previous to the development of the cystitis, but since that occurrence the failure of the patient's strength, and the intense pain caused by the introduction of the speculum, interdicted the application of the remedies adapted to the relief of the former. Her worst symptoms seem to have proceeded from the vesical irritability. Every hour during the night a spirt of urine, amounting to a teaspoonful, would constitute her most serious trouble. Again, there would be retention with great tenesmus and suffering until the pent-up urine was voided through the catheter. The passage of a soft rubber catheter always gave severe pain.

Fully convinced of the inutility of persisting in the ordinary modes of treatment, I determined upon performing rapid dilatation of the urethra as furnishing the only hope of relief. Accordingly, on February 25th, having evacuated the bladder and brought the patient under the influence of ether, I cautiously introduced into the urethra the blades of a narrow pair of sequester forceps, and gently dilated the passage until it would admit my little finger. This dilatation was increased to an extent which admitted of the introduction with ease of my thumb or forefinger. Urine ran freely from the bladder during the dilatation, notwithstanding the previous catheterization. The mucous membrane of the bladder communicated to the touch a soft, velvety feel, and seemed perfectly free from disease. The cavity was normal in size. Hemorrhage was slight.

*March 1st.*—Passed a restless night. Suffered excruciating pain in the vesical neck after each act of micturition. Urine was passed frequently during the night without her control. Morphia failed to ease her entirely. This morning she says she feels somewhat better—makes water with less pain. Tongue dry, and covered with a brownish coat. Pulse 115. Temperature, 102° F. To have quinia and iron, with generous diet. Bromide of potassium at night.

*2d.*—Harassed with incessant vomiting. Pain in bowels. Pulse extremely feeble. Tongue dry. Micturition free, but accompanied with burning pain. No

vesical tenesmus. Complaints of abdominal pain. Ordered a blister to abdomen, to remain five hours, and be replaced with a hot poultice. Bismuth, gr. v., lactopeptine, gr. x., as required, to control vomiting.

*3d.*—Blister relieved her very much. Vomiting and pain returned towards evening. To have morphia and potass. brom.

*5th.*—Bladder a little worse; retains urine.

*6th.*—From this date the vesical trouble gradually augmented. Nitrate of silver topically; irrigation followed by injections of acetates of lead and morphia; suppositories—in short, the customary modes of treatment failed utterly to give the first shadow of relief. Evacuation of urine was performed every hour or two, to the amount of about a drachm each time. Finally, retention became established, and with it great tenesmus and suffering, as before.

*26th.*—No therapeutic resource being left which promised any useful purpose, I determined again to dilate, and this time carry the stretching to the extent practised by Teale. An anæsthetic having been administered, I dilated as before, introduced the right index-finger, crowding it gradually up, and then withdrawing, introduced the indices of both hands, stretching the urethra and vesical neck to their utmost capacity consistent with safety, with a view to completely overcome the spasm of the sphincter, and render it powerless to produce subsequent closure. Some pain was experienced after recovery from the anæsthetic, but was slight compared with that following the previous operation. Immediate relief was obtained from the more urgent symptoms, the only symptom complained of after the operation being a slight burning sensation accompanying each act of micturition. This gradually became less, and her progress has been most gratifying.

At the present date, April 14th, the vesical irritability has entirely disappeared, and she states that her bladder is all right now, and the relief she has experienced cannot be expressed in words.

I regard this case as furnishing a crucial test of the efficacy of Teale's operation for the relief of the very distressing symptoms of irritable bladder. From previous recorded experience it appears that this condition, complicating uterine versions or flexions, has undergone little or no improvement from urethral dilatation, and in the present case I confess that I regarded the operation as holding out but slight promise of cure, and had recourse to it only as a *dernier ressort*, after the complete failure of all other measures. It is possible that failure in some cases has been due to incomplete dilatation, as it was in my case after the first operation. It therefore seems proper to practise extreme dilatation before abandoning the operation as useless. The fullest distention consistent with safety appears to be reached when the channel has been enlarged to about an inch in diameter.

A NEW REVULSIVE.—M. Lardý has introduced to the notice of the profession a new revulsive, the extract of pimenta, which is noticeable for its rapid and prolonged action, and the active revulsion, without pain and itching, caused by it. In ten to thirty minutes it causes a redness of the skin, which increases for three hours and then remains stationary. The extract has a beautiful red color. It should be incorporated in an adhesive mass and applied on squares of paper, like mustard leaves. Care must be taken not to touch the eyes with the hands when they are soiled with the drug.

## AN IMPROVEMENT IN THE JAWS OF THE LITHOTRITE.

By E. L. KEYES, M.D.,

NEW YORK.

OF late years all efforts in lithotripsy have been in the direction of (1) shortening the operation by a closer approach of the sittings without ether (Thompson), or by (2) an improvement in the construction of the instruments used, and prolonged sittings under ether. (Bigelow.)

The latter effort seems the wiser; but it requires instruments capable of quick and safe work. Bigelow's washing instrument appears to leave nothing to desire, excepting some smaller tubes. The mechanism of the bulb is simple and effective. Not so, it seems to me, the lithotrite. The specimens of this instrument, as made by Tiemann, are clumsy and not so easy of manipulation as the English instrument. In order to avoid clogging, the male blade is made quite small as compared with the female blade, necessitating a size of the instrument disproportionately large to its working force, which of course is represented by the male blade alone.

Furthermore, I think this instrument must sometimes clog. It is made on the principle of Reliquet's lithotrite (as Bigelow states), and the latter, as furnished by the instrument-makers, clogs very badly.

The truth is, Reliquet's instrument is not made as he designed that it should be. His principle is double, involving (1) a peculiar construction of teeth in both the male and female blades, and (2) a projection of the male through the female blade and for a certain distance beyond. This latter, and by far the most important feature of the instrument, has been neglected by manufacturers.

Dr. Van Buren brought home, in October, from Paris, one of Reliquet's latest instruments, as made by Collin, and warranted not to clog. I used it upon a hospital patient having a large, hard stone (mixed uric acid and urates). It clogged as I have never seen an instrument clog. It was impossible to free its jaws of detritus while in the bladder, and a serious laceration of the urethra at about three inches from the meatus was made during the extraction of the loaded blades, thus unnecessarily combining the operations of divulsion and lithotripsy.

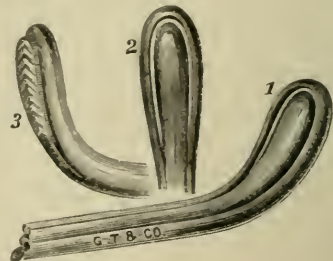
About five years ago, while crushing a uric acid stone, I found the smaller pulverizing Weiss's lithotrite to clog badly at the heel. At this point the detritus always collected, and could not be dislodged while the instrument was in the bladder, although the fragments near the beak could be easily displaced. Consequently I had a fenestra cut in the back of the female blade, at first square, then occupying the whole breadth of the instrument and extending half way from the heel to the tip of the blades. Both of these fenestræ made the instrument worse. It continued to clog, and from the open portion posteriorly upon the convexity of the female blade sharp fragments were sure to project, scratching the floor of the urethra very uncomfortably upon withdrawal, in crushing both hard and soft stones.

The instrument was therefore put aside as ruined, and was only taken out after the failure of Reliquet's instrument, above detailed, had made it evident that the clogging of an instrument might be due to the fact that the back of the male blade did not project entirely through the fenestra of the female blade. I therefore determined to apply Reliquet's principle to the instrument I had already spoiled, and consequently

had the back of the female blade entirely cut away and the shaft of the male blade lengthened in the handle so that when screwed home the roughened part of the curved portion of the male blade would project beyond the female blade from heel to beak about one millimetre along the whole line.

The male blade was to be slightly withdrawn before introducing the instrument, and an occasion soon offered for testing the new principle. The test proved the instrument to be defective. It caught a small fold of the mucous membrane of the bladder, as the old-fashioned fenestrated instrument is apt to do, and proved to be unsafe—although the patient whose bladder was caught did not suffer, as to his ultimate cure, on account of the accident.

Instructed by this defect, I had the male blade of the same instrument narrowed, shortened, and slightly smoothed at its roughened edge all around. It now plays freely in the fenestra of the female blade at a distance of at least one millimetre from it above and on each side, and with the instrument thus completed I operated in conjunction with Dr. Van Buren upon a patient on March 25th, with entire satisfaction. It seemed impossible to catch the bladder; fragments were readily picked up, and although the jaws were at work crushing fragments for nearly half an hour, they came out perfectly free of any detritus, practically as clear as when they went in. The male blade was screwed well home, so that its rough edge projected through the female blade after each fragment had been cracked. The quality of the work was good, the fragments being nearly of a uniform size. Little or no dust was made. The stone was composed mainly of uric acid.



The figure represents the jaws of the instrument used, in several positions. It is simply a smaller Weiss's grinding lithotrite with the back of the female blade cut away, the curved portion of the male blade shortened and narrowed and the principle of Reliquet applied, so that the roughened part of this curved portion projects fairly beyond the back of the curved portion of the female blade.

It seems to me that the requirements of modern lithotripsy call simply for an instrument to crack up the stone. There is no further need for grinding it to dust. Uniform segmentation of the fragments is far more desirable, and to effect this it is only necessary to have an instrument with one narrow blade to pass between two others. This is practically the instrument above described. All the strength required at the heel of the male blade may be obtained by increasing the antero-posterior breadth of the flattened blade at this point, and the strength of the female blade may be similarly augmented. Different sizes of the instrument would make it applicable to all sizes of stone and to all cases in which lithotripsy is appropriate. This instrument is really the old-fashioned grinding lithotrite. It is difficult or impossible to catch the bladder with it if the male blade be short and narrow,



and it is in no way open to the reproach of danger which may be urged justly against the ordinary fenestrated lithotrite. Thompson appreciates this danger, and absolutely condemns all fenestrated instruments in his last public expression of opinion before the Royal Medical and Chirurgical Society, where he states that he has not used a fenestrated instrument in the bladder for ten years. The lithotrite described in this article does not possess the dangers of the old fenestrated instrument.

I may summarize what is written above as follows:

1. A typical lithotrite requires no teeth. Its function is to produce fragments, not dust, if it be proposed to wash out the detritus through a tube.

2. Such an instrument needs jaws composed of three bars, one of which must pass through and just beyond the other two—the latter precaution to insure against clogging.

3. If the male blade be smooth at its edges and so narrow and short as to play in the female blade at the distance of a millimetre or more from the latter on both sides and above, it becomes practically impossible, with the exercise of reasonable care, to catch the bladder, and the terrors of the old-fashioned fenestrated instrument, where the male fits tightly into the female blade, cease to exist.

4. The width of a blade does not add to its strength, which lies in the antero-posterior diameter of the heel. In the width of the male blade lies the danger of a fenestrated instrument.

The above statements are expressions of personal opinion, but they are deductions from clinical experience. I offer the modification I have described to the profession for trial, trusting it may give to every one the satisfaction I have derived from it.

## ON THE TREATMENT OF PHTHISIS.

By C. BOTH, M.D.,

NEW YORK.

ON one or two occasions, I have presented to the profession a treatment for tubercular phthisis, which, in my hands, has proved very successful. In continuing my remarks upon the subject, I desire to place upon record some additional cases. As a proper introduction to the detail of such cases, it becomes me to allude in the briefest possible terms to the methods pursued by me. I may here remark that they have already been presented to the profession, but believing that many may not be acquainted with them, I allude to them in this connection.

The method, as a whole, may be divided into three divisions; first, that referring to mechanical treatment; second, that referring to digestion and assimilation; and third, the introduction of soluble lime to invite the calcification of the tubercles. Now, in reference to mechanical treatment, I may remark that the principles upon which it rests are simply as follows: From the fact that no lung can heal until previously cleared of phlegm and pus, and accessible to air, I endeavor to bring the muscles of the throat in such a condition that they can be used as a pump to draw the air forcibly into the finest passages by suction, thus, by the repeated rushing in and out of air, they get cleared, somewhat in the manner of a rolling sea washing a rocky shore. I have advocated for this purpose three exercises, which follow each other as the strength of the patient increases, and which are described in full in THE MEDICAL RECORD of July 21, 1877. These manipulations have for their aim the clearing of the bronchioles and alveoles of phlegm and

pus; the re-establishment of capillary circulation and respiration in the affected lung portions, and the stimulation of cellular activity generally.

My next point is the establishment of *perfect* digestion, assimilation, and excretion; it being the object to secure the quickest possible change of matter consistent with the preservation of the balance of absorption and excretion. All the points established by physiological chemistry come here into play, forming the most difficult part of the treatment, inasmuch as we have to consider the chemical transformations of certain food, not only under normal, but also under pathological conditions of glands, and of the blood itself. The diet is, therefore, a different one in each case, and varies again as the case advances. Thus, in the case of a patient whose blood is dark purple from want of proper oxidation, and for the chemically abnormal constitution of the albuminates, it would not be advisable to give him easily digestible, nitrogenous food, but we must manage to use up the old material first the best way we can, and then add, gradually, better substitutes in proportion as the effete matter becomes more oxidized and excreted. The object of diet is not to find the most nutritious or most digestible, but such food as will digest according to the quickness or slowness of the assimilating power in the individual. A specified diet, then, is required, but the individual reasons therefor can only be explained in a given case. Some of the main points in this regard have been published in THE MEDICAL RECORD of December 15, 1868, and of February 17, 1877.

The natural healing process of tubercles, or decaying cells in the body, is their transformation into a cretaceous mass, or calcification. We have, therefore, to furnish the blood with the salts necessary for this purpose, in such a form that they can be assimilated. These salts are, especially, the carbonates, silicates, and phosphates of lime in their organic combination with albumen, which we find in both the vegetable and the animal kingdoms. Too strong heat in cooking destroys this combination, and renders the salts insoluble, and consequently unfit for assimilation.

I finally pursue a general regimen which brings the patients under the influence of all those natural resources which are known to increase cellular activity, such as ozone, sunlight, etc. They sleep with open windows in summer and winter, and go out every day. The clearer and fresher the air the better; so important is this outdoor exercise that I insist that my patients go out in rain, snow, dampness, and even in night air and dew. I have had no instance for twenty years where a patient "caught cold" from such exposure. I only guard consumptives against strong headwinds and extreme hot weather. Hot and damp weather favors the development of tubercles; they spread quickly through self-infection from softening. The depressing influence of heat on the nervous system seems to be the direct cause of this.

If these four points are brought to bear, *properly*, upon consumptives, the result is such as may be seen in the short report of six cases, treated for advanced phthisis within the past two years. All had been under the best known therapeutical or climatical treatment with the best physicians, and they came to me apparently without any hope left for them. It will be found that I have even overreached my former percentage of 60 saved. I lost one; the prognosis of one is yet doubtful, while four are again in active business. They were treated as they came, without selection.

CASE I.—Mr. W. H., a native American, of Yonkers, merchant in New York City, began treatment in October, 1876; 28 years old; had lost a brother and a

sister by consumption in 1875. Had been sick for ten years, and had to give up all business for the last two years. Regular patient of Dr. C. P. Tucker, of New York, in consultation with Drs. A. Flint and A. Clark. Had tried Minnesota and Colorado, also the outdoor-tent living, and the South, with injurious results.

Examination denoted a cavity of two inches by four inches in right apex; whole of right lung tubercular; four inches of exudation in right pleura. Left upper lobe tubercular with subcrepitant râle. Pulse 124 after rest; feverish.

Although I was unable to give him much encouragement, he nevertheless resolved to submit himself to treatment. In the course of a few months the cavity began to diminish in size, when I discovered another one below it. On the 1st of August, 1877, he resumed active business, in which he has not missed thus far a single day. In the same month he was re-examined by Dr. A. Clark, which examination proved a very satisfactory one for him. His condition is now: Left lung calcified; expiration denotes former tuberculosis. Exudation in right pleura is gone. Upper cavity about the size of a hen's egg, which probably will remain so for life. Lower cavity also diminished in size. Respiration has been established around both cavities. Pulse in bed 68—varying, 20, higher in daytime. Patient appears strong, active, and, at present, is travelling in business.

CASE II.—Mr. Herm. B., a native of Hamburg, merchant in New York: 24 years old; lost a brother by consumption in Madeira, in 1875. Soon after, on an extended pleasure trip through Colorado, California, and Mexico, he was attacked several times in succession by hæmoptysis: was treated by Dr. Pregitzer, of Staten Island, in consultation with Dr. Schmetter, of New York, who sent him to Aiken, S. C. Returned from Aiken much reduced, when Dr. Schmetter advised him to live in winter at Pau, France, and in summer at Davos, Switzerland. With his steamer ticket in his pocket, he consulted me in October, 1876, being informed by his physicians that he would not live till February next, if he ventured to remain in New York.

Examination denoted tubercular induration in both apices—left side down to fifth rib, right to third. Pulse 135 after rest. Nervous system very irritable and weak. Had all the signs of acute tuberculosis, threw up his food, etc.

After a few days' treatment his pulse sank to 112, then to 104, where it remained steady for three months. During this time a cavity was detected between second and third ribs on left side, of the size of a pigeon's egg. I had promised him to be able to visit Germany in June, to relieve his anxious parents. He left New York on the 24th of May, travelled through Germany and Switzerland, and returned to New York in October, 1877. Since then, he has been steadily in active business. His condition is as follows: Right lung perfectly healed and calcified. The cavity in left lung is likewise healed; the apex above the clavicle in left side is not yet cleared, which compels him to cough and expectorate in the morning. In November, 1877, I walked with him from 51 New Street to Twenty-seventh Street and Seventh Avenue, in forty-five minutes, and he was chatting all the way without cough or fatigue. His pulse is now 60 in bed, and 80 in daytime. Dr. Lellmann, of New York, examined this case before and after the voyage to Europe; I also presented him once to Dr. L. A. Sayre, of New York. It is probable that he will be completely cured before next summer. I must state that when I first saw him he was unable to walk ten blocks.

CASE III.—Mr. Geo. G., a native American, of Yonkers, member of Stock Exchange in New York, began treatment on Jan. 3, 1877. Had lost a sister in 1876 by consumption. Had been a patient of Dr. Markoe, of New York. Had taken cod-liver oil and whiskey with hypophosphites and quinine. Unable to digest any food; much reduced. Examination denoted tubercular induration in right apex to third, and in left apex to fourth rib. No cavity; no pleuritic effusion; no acute signs. Pulse only 86.

From the moderate affection of his lungs, I expected a favorable result. After having, with some difficulty, regulated his digestion, the case promised well; but I soon noticed that he did not gain in strength, in spite of good appetite and perfect digestion; and his pulse began to rise gradually. With a view of recovering his failing nervous power, I arrested all mechanical treatment. But his pulse rose steadily, and his power failed in proportion. Without any further symptom of note, he died while asleep, after having smoked a cigar and partaken of some lemonade. Post-mortem was not permitted. All the patients I have lost died in a similar way; possibly from pulmonary thrombosis, but I am inclined to think, from nervous exhaustion in spite of seemingly perfect digestion and assimilation.

CASE IV.—Frank W. T., M.D., practising physician, of New York, consulted me in March, 1877, about his chest and throat. Had very marked aphonia for two years, and been under treatment of Drs. Elsberg and Lincoln for it. Had also been examined by Drs. A. Flint, A. Clark, A. Loomis, Leaming, and other physicians. Had been taking cod-liver oil, whiskey, quinine and morphia, etc.

Examination denoted tubercular induration in both apices to about the third rib. An exudation of about two inches in right pleura, over which the lung appeared in a softened condition, probably the result of a not fully reabsorbed pneumonia. Had been subject to hæmoptysis for many years, and had had pleuro-pneumonia in 1872. Pulse high and feverish, varying between 100–120. He told me that he had two tubercular ulcers upon the vocal ligaments. I did not examine his throat.

He wished to try the method, the immediate consequence of which was the recovery of his voice, which he has not lost since. Soon after, failing to make his appearance, I found him in his office, very sick and discouraged. He had taken nitrous-oxide gas and morphia, which completely upset him. I managed to get him "straight" again in a few days. He, being a physician, was rather a careless patient, attending midwifery cases at night, and neglecting at the same time his diet. Being absent from New York during the summer, I did not see him again until September. He had lost flesh and strength and had a high and feverish pulse. I then informed him that unless he put himself on a very strict diet he could not recover. This done, he has steadily improved. Had Dr. T. been a more regular patient, he ought to have been entirely well by this time. As it is, he has experienced the great importance of a specific diet, without which nothing can be accomplished in any case whatsoever.

CASE V.—Mr. John M., architect, German-American, twenty-two years old, was sent to me by Dr. John L. Campbell, of New York. Patient stated that he had difficulty in his lungs when fourteen years old, from which he apparently recovered. He suffered much from three fistulæ in ano, for which he was treated by Dr. James L. Little. Schneiderian membrane affected with catarrh. He was deaf, both tympani having been destroyed by tubercular ulceration. His tongue ex-



hibited small ulcers and cracks between the papillae. He had been in Florida, with injurious results.

Examination denoted a heavy tubercular induration in left upper lobe, comprising the whole lobe. Between third and fourth ribs there was a cavity. Lower lobe also affected. Chronic pneumonic patches and bronchitis. Wore a plaster on his left side, prescribed for pleuritis. Right upper lobe tubercular; lower lobes and pleura free. Pulse 112 after rest.

The case being a desperate one, I took him only upon request of Dr. Campbell. As the patient could not walk about, on account of his fistulas, Dr. Little put strings through them, by my request. After the second visit, Dr. Little sent me a note as follows: "Dear Doctor: Patient's fistula is ever so much better, I put a string through the other one. The patient looks very much improved. I congratulate you, Yours truly, Little." The case, undertaken the last of September, progressed well until December 10th, when the left pleuritic affection proved to be an abscess, which finally opened into the lung. This unwelcome circumstance upset the patient a good deal; his pulse, which was down to 88, is now again 112. His appetite and digestion are, however, excellent, and I have the hope yet to get him through. He walks nearly three miles per day; goes out at night, and, considering his circumstances, appears very lively. This is one of the most complicated cases I ever saw.

CASE VI.—Mr. H., native American, of Brooklyn, thirty-two years old, a merchant in New York, was sent to me by Dr. George R. Fowler, of Brooklyn. Had been examined twice by Dr. A. Flint, who found the disease progressing unfavorably. Had been in Florida without benefit.

Examination denoted tuberculosis in right apex down to fifth rib; in left lung to fourth rib. I could not detect any cavity, which patient thought he had. On one place in left lower lobe an indication of formerly existing lobular pneumonia. Pleurae free. Heart was subject to mitral disease, in consequence of rheumatism. The very dark color of his blood, contrasted strangely with his very pale lips and skin. Nails nearly black. Pulse only 88.

The case being one of uncomplicated tuberculosis, my prognosis was a favorable one. The patient, under treatment since October, 1877, has progressed exactly as expected, and I hope to dismiss him as cured next fall. I let him attend to his business all the time, which somewhat retards the case, but I am hopeful of complete success in spite of it. His blood is now in an absolutely normal condition.

It seems to me that these cases would demonstrate not only the possibility, but almost the certainty, of an arrest of phthisis in all stages, with as much assurance of success as we claim in capital surgery. To arrest tubercular induration in its beginning is, in fact, an easy matter, and can be accomplished in a comparatively short period. This treatment is the first successful practical application of the cellular theory.

questions of homologies and evolution. Of the 363 pages composing the body of the book, 285 are given up to the development of the skulls of different kinds of fishes, the axolotl, snake, bird, and pig; 13 to preliminary embryology, or the processes by which the vertebrate animal is evolved from its germ; 5 to the human skull; and 60 to a summary of the facts and a study of their bearings. The chapter on preliminary embryology is the one of most value to the physician, because it gives a succinct, but very clear description of the manner in which the complex organs of the body are formed out of the three blastodermic layers, and indicates the origin of many congenital deformities. The chapters on the skulls of fishes, reptiles, and birds are of interest only to the comparative anatomist, and even the final chapter, to which all the others are preliminary, is interesting to, and can be fully comprehended by, only a limited circle of readers.

Ever since the poet-philosopher of Germany, ninety-two years ago, thought he recognized in the weather-beaten skull of a sheep picked up on the beach of the Venetian lagoon the outlines of three vertebrae, the question of the homologies of the cranium thus raised has been discussed with varying fervor, and, it must be confessed, without any very definite results. Oken, who conceived the idea twenty years later and under circumstances strikingly like those which suggested it originally to Goethe, pointed out three vertebrae and the rudiments of a fourth; and now, while there is much diversity of opinion concerning the particular homologies, most naturalists are in accord upon the general ones.

Prof. Parker dissents entirely from this view. He admits that in the adult mammal skull three segments can be distinguished, but he denies that these segments represent three cranial vertebrae. In the lower forms, where the resemblance should be greater if the homology were real, we find it is in fact less; thus, for example, in the skulls of fishes and amphibians, only one segment, the occipital, can be seen. The still earlier types of cartilaginous skulls (chondrocrania) and the more recently acquired knowledge of the facts of embryology are, according to our author, entirely opposed to such a theory. Each vertebral centrum is due to chondrification of a tube of tissue around the notochord, but the notochord and its enveloping cartilage are never found in the anterior part of the cranium, and consequently there can be no resemblance between the preputiary structures at least and the vertebral centra. There are even reasons for thinking that the basioccipital, the segment in which the homology is claimed to be the plainest, itself represents ossification in several primitive body-segments.

Finally, the attempts which have been made to harmonize the theory with the points of emergence of the cranial nerves have not succeeded, for we are unable to determine the relative morphological values of the different nerves, or their relations to the nerves of other segments, and consequently all attempts to deduce therefrom the outlines of cranial segments and establish their relationship with the spinal vertebrae are, to say the least, premature.

Of the mass of facts contained in the body of the work no criticism will be attempted. The author is himself the highest authority upon the subject, and we can deal only with the arrangement. This is excellent; each stage, each chapter is summarized, and a carefully compiled index makes it easy to follow the history of individual bones and tracts comparatively.

## Reviews and Notices of Books.

THE MORPHOLOGY OF THE SKULL. By W. K. PARKER, F.R.S., and G. T. BETTANY, M.A. Macmillan & Co. 1877. Pp. vii., 368.

THE present work by Prof. Parker is an elaborate account of the development of all, even the most minute, portions of the cranium, its annexes, and its contents in the principal types of the vertebrates, and brings a formidable array of facts to bear upon the

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE NATIONAL HEALTH BUREAU.

THE passage of the bill creating a National Quarantine, with a central bureau, confers upon this country a benefit which it is impossible at present to calculate. The law is so comprehensive in its scope, so simple in its action, and so capable of a reasonable and intelligent system, that its real utility can only be determined by an elaboration of details, and by the adoption of measures which experience may suggest or circumstances demand. It is gratifying to know that the Surgeon-General of the Marine Hospital Service fully appreciates the duties of his new office, and that he has so promptly taken the necessary measures to carry out the provisions of the Act. Circular letters have been addressed to the consular officers and other representatives of the United States abroad, who are directed to report by cable telegram to the Central Bureau at Washington, whenever any vessel shall leave any infected foreign port bound for any port in the United States.

These consular officers for the United States are requested to put themselves into communication with the health authorities of their respective stations, and from the information obtained from such authorities, or from other reliable sources where no regularly constituted health authorities exist, to prepare and transmit by the mails, to the Surgeon-General of the United States Marine Hospital Service at Washington, weekly reports of the appearance, progress, or termination of cholera, yellow fever, small-pox, or typhus, occurring in their respective localities, and also to include in said reports information in relation to the prevalence of other preventible diseases, as diphtheria, enteric and scarlet fevers, etc., the prevailing disease or diseases in port, if any, and, when practicable, the annual death-rate per one thousand of the population, as shown by the official record of deaths for the week reported. It is further requested that special interest

be taken in the healthfulness of vessels, reporting those arriving from or departing to the United States in a bad sanitary condition; also, reporting the facts of any serious sickness or unhealthiness of seamen in port, or of crews arriving from or departing to the United States.

It is intended that these weekly abstracts shall be a practical aid to State and municipal health boards, as well as to the port health authorities. To this end these reports will be sent weekly to every legally constituted or appointed health authority throughout the United States. Even at this early period it is not difficult to see the outlining of a system which prospects the establishment of a health board in every State, and the elaboration of a plan which in its sphere is likely to be as extensive and efficient as the Signal Service, or any similar bureau. From the present outlook the success of the measure seems almost a foregone conclusion.

## THE FLOWER AND FRUIT MISSION.

THIS admirable charity resumed operations for the season on the first Monday of May, and hereafter the distributions will be made regularly every Monday and Thursday to the various hospitals, asylums, prisons, and other public institutions, and also to the sick and destitute in the tenement-houses of this city. The ladies having the work in charge anticipated receiving but a comparatively small supply of flowers on the first day; but, instead of this, there was a sufficient number sent in to make more than four thousand bouquets. Of these four hundred, composed exclusively of lilacs, were sent to the blind asylum, as the blind seemed to be more fond of the odor of lilac than of almost any other shrub or flower.

The Flower and Fruit Mission accomplishes its work at probably a less cost than any charitable society that ever existed in New York; for during the eight years of its existence its actual expenses have amounted to only one hundred and twenty-five dollars, which is certainly a very remarkable showing. The flowers and fruit are all donated by the friends of the charity; the railroads, as a rule, furnish free transportation for those sent from the country, and the ladies who distribute them pay their own expenses to and from the institutions visited by them. These kind-hearted ladies make no parade of their doings, and no names are ever made public in connection with the good work, except that of the secretary, Miss Russell, to whose care it is necessary that donations of flowers, fruit, or money should be sent. At the recent anniversary meeting of the society, the Rev. Dr. Hall remarked that the ladies were so quiet and so devoted in their efforts to alleviate suffering and sorrow, that they could only be compared to ministering angels; upon which Dr. Bellows very happily suggested, that although they were so very quiet, yet occasionally we might hear the Russell of their wings.



## THE HEALTH BOARD AND THE NUISANCES.

FROM present appearances the duties of the Health Board regarding the abatement of nuisances is likely to be pretty thoroughly canvassed. It is just as well that there should be, on the part of the public, some distinct understanding as to how far the Board is really responsible for the charges which have been recently made against it. At first sight, it is very easy, while submitting to an acknowledged nuisance, to look only upon that side of the argument which is in favor of a speedy and unconditional abatement. Hence, the foul odors from Hunter's Point, from one or two soap-factories, from the manure-heaps, etc., are naturally associated with a dereliction of duty which calls loudly for rebuke. Especially is this the case at present, when a formal charge has been made to the Grand Jury by the Recorder, and that body has been directly invited to give legal form to charges of neglect of duty. There can be no doubt that public attention is now thoroughly aroused upon the subject, and that some good will come of the discussion.

Without desiring to prejudge the case, we believe that the Health Board has acted in perfect good faith in regard to all matters affecting the public health or comfort over which it has had any direct control. It is true nuisances still exist, that there are still influences at work which have a direct and indirect tendency in affecting the public health; but the question which will doubtless be decided will be, whether these have been reduced to a minimum consistent with the public safety and comfort on the one hand, and public policy on the other.

Notwithstanding the great temptation, under the spur of the present excitement, to adopt stringent measures, it is fair, in view of the good work which it has accomplished, within the past two years especially, that the Board, should be given the best of opportunities to defend its course. With such as may know the material of which the Board is composed there is scarcely room for doubt that the desire is to fulfil its utmost obligations to the public. Whether or no the latter has been done will be decided very shortly.

Possibly the best promise for the future will be an adverse verdict, a censure of the Board, and a demand for more stringency in the enforcement of the code. Then it is possible that the way may be opened for that moral support of the people which is always so necessary when radical measures are balanced against mere matters of expediency.

Heretofore there has been an obvious necessity for steering between two extremes, mitigating an evil rather than attempting to abolish it altogether. Thus far results have been obtained which, in a general way, show the wisdom of such a course. The rendering establishments are now managed with a care in avoiding noxious emanations which was never known before. The proprietors, at great expense in machinery, have reduced the process almost to a science and

are anxious to co-operate with the Board. The slaughter-houses have been improved, and the time is almost ripe for that concentration of effort which will make the abattoir system an established fact, and as acknowledged a success as that in Paris or in Boston. All that seems to be required now is that preparation of the public mind which shall prove the proposed changes to be a necessity. The latter can the more effectually be done the more the subject is agitated.

It would seem almost like apologizing for the general conduct of the Board to say anything in extenuation of its action concerning the Hunter's Point nuisance; but the facts deserve to be stated, especially at a time when there would appear to be no excuse for a continuance of the dreadful odors. It is well known that the largest of these establishments at the Point was broken up by the Board last fall, and that it was at the time believed to be all that was needed. The stench, nevertheless, continued. This was believed to be due to the removal of the material then on hand. When, however, the latter was accomplished, it was ascertained that other factories farther up Newtown Creek were equally obnoxious. Then it was that the proprietors of the latter were, on behalf of the city, duly indicted, the trial being now in progress. It is much to be regretted that there is no provision of the State law which gives the Board any representation in the Brooklyn courts, and the only way that the offending parties can be reached is through the District Attorney, on behalf of the city, the Board itself merely furnishing the testimony for the prosecution. During the past winter the most strenuous efforts were made to secure the passage of a law for the purpose of escaping the present circumlocution, but without success.

In conclusion, we repeat that whatever may be said in favor of the motives of the Board, there is no doubt that many changes for the better can and should be made. But the question of vital interest, as previously intimated, in connection with this fact is, how radical can these improvements be, consistent with public policy and with a desire to popularize sanitary measures. But we shall learn more as the case proceeds.

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DR. HORACE T. HANKS of this city has been appointed lecturer on Obstetrics in the Medical Department of Dartmouth College.

STATE MEDICAL SOCIETY OF ARKANSAS held its Third Annual Session at Forth Smith, commencing May 1. The attendance was good and there were many papers of merit read and discussed. The advertising physicians from Hot Springs were, on report of the judicial council, duly expelled from membership. The following officers were elected for the ensuing year: *President*—A. A. Horner, of Phillips County. *Vice-Presidents*—T. W. Hurley, of Benton County; W. H. Hawkins of Little River County; J. S. Shibley, of Logan County; Isaac Folsom, of Lonoke County. *Secretary*—R. G. Jennings. Next place of meeting, Little Rock, the first Wednesday in May, 1879.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, March 27, 1878.*

DR. J. C. PETERS, PRESIDENT, IN THE CHAIR.

DR. H. N. HEINEMAN presented a specimen of

#### VALVULAR DISEASE AND ANEURISM OF LEFT VENTRICLE,

removed from Sophie Zimmerman, æt. 33, single, Switzerland, domestic. Patient was first admitted to Roosevelt Hospital in 1874, readmitted in 1876, to Bellevue Hospital in 1877, and died at Trinity Infirmary, March 14, 1878. She was perfectly well up to 1874, when, after taking cold, she was confined to bed for several weeks, suffering from sharp, stitchy pains, and from oppression in the præcordial region, from cardiac palpitation, dyspnoea, and vertigo. This attack was followed by a recurrence at intervals of all the above symptoms. She suffered constantly, until the date of her death, from a feeling of soreness and oppression in the chest, and from slight cough, with more or less whitish expectoration.

In 1876 she had an attack of subacute pleurisy of the right chest, and had some ascites, both of which disappeared at the end of a month. In 1877 she had an attack of perihepatitis. Physical examination in 1874 showed her radial pulse regular, but stronger on left than on right side. A loud systolic murmur at base and apex of heart. In 1876, Drs. Delafield and Wm. H. Draper pronounced the condition of heart as follows: Heart enlarged; diffuse impulse; apex-beat prolonged at sixth intercostal space and one inch to left of nipple line. A slight aortic direct, a well-marked mitral direct, and short mitral diastolic murmurs. A "saw" murmur. Loudest murmur at apex and transmitted to the left. Heart dilated and hypertrophied.

In 1877 patient had three loud murmurs—a mitral direct and two aortic. In 1878, Dr. C. E. Hackley recognized the signs of jugular pulsation and pulsation of the liver and diagnosed tricuspid, insufficiency in addition. Patient died anasarous.

The autopsy was made March 15th, by Dr. Hackley and myself. Heart.—Pericardium thickened and everywhere firmly adherent to heart-walls. Right ventricle and auricle dilated; left ventricle dilated and hypertrophied; mitral and tricuspid orifices dilated, valves insufficient and atheromatous; aortic valves atheromatous and insufficient; pulmonary orifice insufficient from complete obliteration of one valvular leaf, which was adherent to the wall of the artery.

The upper two-thirds of the left ventricular wall, commencing at its base, was distended into a single saccular aneurism, with thin walls lined by a layer of lime salts, and within this by successive layers of coagulated fibrin old and recent, but which had not yet organized. Aneurism was about 4½ inches in diameter and opened by an orifice of 1½ inches diameter into the left cavity. In addition there was fluid in the cavities of the body, the liver was large and cirrhotic. The lungs in condition of pigment-induration, and spleen large and congested. The remaining viscera were normal.

DR. PETERS remarked that there were eight cases of cardiac aneurism in the records of the Society, the

majority of them, as is this case, being connected with the left ventricle.

#### TUMOR OF INTESTINE; LUMBO-COLOTOMY.

DR. E. MASON presented the rectum and portion of the ascending colon taken from a patient upon whom had been performed the operation for lumbo-colotomy, eighteen months ago. The patient was a female aged twenty-five years. In July, 1876, she was delivered, by the forceps, of a dead child, after a prolonged labor. Four months afterwards a recto-vaginal fistula made its appearance, from which the greater portion of the feces escaped. Soon after she began to suffer from great pain in the rectum with bearing-down. A stricture was diagnosed and was operated on four times, twice by division and twice by incision, but without any permanent good effect. She entered Bellevue Hospital during September, 1876. At that time a tight stricture with ulceration was discovered, two inches above the rectum, and at the site of the stricture there was felt a distinct mass, which was regarded by the majority of surgeons who examined her as cancerous in origin. It was, however, most probably chancreoidal, although she denied ever having had venereal disease. As a result of a consultation, lumbo-colotomy was performed September 20, 1876. Immediately after the operation the patient was relieved of the intense pain from which she had previously suffered, and continued quite comfortable. The stricture gave way gradually, as usual in such cases, but still the ulcerations existed. At times the patient suffered from paroxysms of intense pain in the hepatic region, the cause for which was not ascertained during life. Besides this trouble she was also the subject of Bright's disease, from which, together with double pleurisy, she died on the 8th of last March. At the autopsy the rectum was found covered with numerous ulcerations, which extended a considerable distance into the colon. Encircling the upper portion of the rectum was an adventitious mass, the nature of which, in the absence of a microscopical examination, could not be ascertained. The cause of the hepatic pain was explained by a calculus that completely plugged up the cystic duct.

#### LITHOTRITY BY BIGELOW'S APPARATUS.

DR. KEYES presented the fragments of two small uric acid stones taken from a patient by lithotripsy, at a single sitting under ether, the operators being Dr. Van Buren and himself.

The patient was a man of 63 years, whose prostate was normal, excepting a slight centric enlargement. There was moderate cystitis, little or no atony. The urethra was distinctly narrowed in the bulbo-membranous portion. Kidneys sound. The bladder symptoms in this case dated about one year back; no instrument had entered the urethra previously to the passage of the searcher; the patient had never had urethral fever; the urethra and vesical neck were excessively sensitive to instrumentation.

On March 23th, without previous preparation of the urethra, the patient being under ether, the stones, the size of which and their chemical composition had been already estimated, were reduced to fragments, and removed entirely from the bladder in one hour. Bigelow's bulb for washing the bladder was used, adapted to a tube from Nelaton's instrument, and the apparatus was found to functionate admirably. None of Bigelow's tubes as now made by Tiemann could be used on account of their great size. Nelaton's tube measured 13 Am. scale (20 French) and distended the urethra to its utmost. It was on ac-



count of this smallness of the washing-tube that the sitting had to be so much prolonged. The lithotrite was introduced three times. The first crushing lasted nearly half an hour, and yielded ninety-eight grains of crushed fragments to a washing of about ten minutes. The second crushing lasted about ten minutes, and yielded twenty-nine grains. The third crushing lasted two or three minutes, yielding two or three grains—a final fragment.

Bigelow's instrument and tubes for washing the bladder were shown and their action explained. The lithotrite used was a peculiar model (not Bigelow's), but a small fenestrated instrument, especially constructed so as not to clog. It worked perfectly, and at the end of the long crush (nearly half an hour) came out entirely free from detritus. (In the present number of the *Record*, Dr. Keyes gives a description of this instrument.)

The patient had a urethral chill on the third day, and complete atony followed the sitting of lithotripsy, necessitating the use of a catheter. At the date of going to press, power is returning to the bladder, and the patient has been doing perfectly well.

**PLEURISY WITH EFFUSION (R.); COMPRESSED LUNG; FIBROUS PHTHISIS; DILATED BRONCHII; BRONCHIECTATIC CAVITIES.**

DR. BEVERLEY ROBINSON presented a specimen of the above with the following history:

T. M., æt. 38, single, admitted to Charity Hospital, February 26, 1878; died March 6, 1878. Patient has always been healthy until two months ago, when he began to suffer from slight pain and a feeling of malaise on the right side. Shortly, a dry, hacking cough manifested itself, accompanied with dyspnea, loss of flesh, and night-sweats. He could sleep only on the right side, and so soon as he turned towards the left was greatly oppressed. He is now much emaciated, has complete loss of appetite, and suffers from a parched mouth and continuous thirst. His tongue is brown and dry; his pulse frequent (118), his respiration shallow and somewhat labored (36). The chest is bulged on the right side, and the movements in this region are much restricted. Measurement with tape-line indicates two inches as the extent of the enlargement; there is flatness which reaches on this side (r.) to the second rib. The heart is displaced downward and to the left, the apex beating an inch to the left of the nipple (l.). Under the left clavicle the percussion sound is elevated in pitch. Over the entire right lung respiratory sounds are absent, whilst over the left one they are markedly exaggerated. Urine normal.

Feb. 26th.—Patient was aspirated, with ntab le relief to his difficulty of breathing.

Again, on Feb. 28th, aspiration of right chest was performed, and a quart of straw-colored liquid was withdrawn, with a similar result as before.

March 5th.—Temperature, 103½° Fahr.; pulse, 120; somewhat irregular and feeble; respirations, 40 in the minute; the right chest cavity was again nearly filled with a liquid effusion; aspiration of 40 ounces was performed for the third time. After the operation the patient slept quietly during several hours; he awoke at 10 o'clock, A.M., suffering from dyspnea, which continued with increasing intensity until 3 A.M., when he died, apparently, from undue compression of the heart and inability of sufficient respiratory function.

Autopsy was made by Dr. E. A. Maxwell, 23 hours after death, of which the following is an abstract: the right pleural cavity almost filled with opaque, yellowish fluid; place of last respiration was looked

for carefully, and only a slight streak could be found marking the point where it had been performed; there was no ecchymosis locally and no signs of inflammatory action at this level. The whole pulmonary pleura was covered with pseudo-membranes of moderate thickness; costal layer thickened and roughened. On stripping pseudo-membrane from lung, the superficial lobules are distinctly mapped out by narrow yellowish white lines, which project into the pulmonary structure.

The entire lung (r.) is moderately compressed, and the lower and middle lobes are carnified. Posterior portion of upper lobe is almost wholly involved by clusters of fibrous nodules and chronic interstitial pneumonia. Remaining portions show analogous changes. Over the opposite lung (l.) firm old pleuritic adhesions are found, and in the upper lobe there are two bronchiectatic cavities. At certain points the bronchii are narrowed; at others dilated. There is some œdema in this lung, and tenacious mucopus in bronchii. Heart, normal. Liver, spleen, and kidneys congested.

The points of interest in this case are: 1. The cause of death. 2. The absence of local signs, indicating the seat of respiration. 3. The rapidity with which the fluid effusion recurred. 4. The question as to how much fluid should be withdrawn at each aspiration in similar cases which tend towards chronicity.

#### PERINEAL LITHOTRITY.

DR. L. A. STIMSON presented the urinary organs of a man, 72 years old, from whom he had recently removed a stone by perineal lithotripsy. The patient's first symptom of urinary trouble was an attack of retention two years ago; it was relieved by the passage of a catheter, and did not recur. This was followed by slight symptoms of cystitis and stone, and then by more and more frequent urination, which ended in complete incontinence about two months ago. Examination disclosed a soft stone about one inch in diameter, in a thickened, contracted bladder. The urine was ammoniacal, of low specific gravity, and contained considerable albumen, but no casts.

The operation was performed with the thermo-cautery, the pre-rectal incision, and the Guyon dilator. The stone was easily crushed with small forceps and promptly removed. The hemorrhage was slight. An hour after the operation, the patient had a chill; the next afternoon he was slightly uræmic, and on the third day he sank steadily and died at 5 o'clock, P.M., with a final temperature of 105°.

The points of pathological interest in the specimen are as follows: The prostate is small, with a central third lobe as large as a cherry; the prostatic urethra is uninjured; the membranous urethra is divided along its floor for one and one-fourth inches; the bulb extends down to, and is closely united with the rectum, and the incision has passed through its lower portion, cutting off a strip one-eighth of an inch thick. The bladder wall is hypertrophied, especially in the lower lateral portions, where it is more than an inch thick, and is so contracted that its cavity would not contain more than an ounce of urine. Its inner surface is rough and sacculated, of a deep slate color, and shows no signs of injury except a slight rent of the mucous membrane at the neck.

The ureters are dilated. The kidneys weigh seven and one-fourth and six ounces respectively; their capsules are adherent and thickened, the cortex diminished, the markings in great part obliterated, the pelvis slightly dilated, and its walls injected and thickened.

The bladder lay close behind the symphysis pubis, and was firmly bound down to it; the lower border of the omentum was adherent to the bladder, and the cavity of the pelvis was occupied by a mass of convolutions of the small intestine, firmly bound together and to the parietes by old adhesions.

The points of operative interest are the position of the bulb, and the close proximity of the rectum to the portion of the membranous urethra just in front of the prostate. It is probable that, if the lateral operation for lithotomy had been performed in this case in the usual manner, the rectum would have been cut into.

**BUTTON REMOVED FROM TRACHEA THREE YEARS AFTER ITS LODGEMENT.**

DR. BRIDGE exhibited a button removed by operation from the trachea of a woman, with the following history: She was a native of Ireland, 40 years of age, and the mother of a large family, and had been troubled for about a year with a dry and harassing cough. She was sent to Dr. Bridge by Dr. Ormiston, of Brooklyn, in order that she might have an examination of her larynx, and if necessary have an operation performed. She had consulted six or seven physicians in Brooklyn, the majority of whom stated that she had consumption, basing their opinion upon the cough rather than upon any positive physical signs. Dr. B. could not, however, discover any physical signs of such a condition. Before asking her anything concerning her history, Dr. B. made a laryngoscopic examination. The larynx and pharynx were perfectly normal; but when the patient took a full inspiration and separated the vocal cords fully, a black substance was discovered in the trachea, and lying across it in a diagonally transverse condition. Dr. B. then learned that three years previously, the patient, while on a voyage from Liverpool to New York, and while playing with her child, and at the same time holding between her lips a button, the latter escaped down her throat during an inspiration. Immediately after the accident she had a number of suffocative spasms, which were undoubtedly due to the presence of the button in the trachea, but which ceased within an hour or two. The surgeon of the ship said that the button must have gone into the stomach, which opinion was endorsed by some of the medical gentlemen who afterwards saw her in Brooklyn. A year after the accident the patient was seized with a dry cough, which was attended with some wheezing in breathing. On discovering the foreign body in the trachea, Dr. Bridge at once decided to operate, and the patient was accordingly admitted into the Trinity Infirmary. The button lay in such a position that it might have been readily seized with a forceps, but as there was great danger of its being tilted during the struggles of the patient, and plugging up the trachea, demanding tracheotomy under very disagreeable circumstances, the safer course was taken of administering ether. The button was then easily removed. The patient left the Infirmary perfectly well ten days afterwards.

DR. SATTERTHWAITE presented a specimen for a candidate, after which the Society went into executive session.

**NEW YORK ACADEMY OF MEDICINE.**

**OBSTETRIC SECTION.**

*Stated Meeting, April 15, 1878.*

DR. SALVATORE CARO, CHAIRMAN.

**TREATMENT OF DIPHTHERIA.**

DR. O'SULLIVAN, in speaking of the treatment of diphtheria, remarked that he had found *steam* to be a most valuable remedy. He was of the opinion that the hot air from furnaces was in a great measure irritant to the air-passages, and that it should be mollified by the vapor of water. He urged the necessity of rigid quarantine, and thought that those attending upon the patients in the capacity of nurses should not be permitted to go out among the people—for example, gather with the crowds which attend mass in the Catholic churches—because there was danger of communicating the disease in that manner. He did not approve of the use of quinine except in tonic doses in the latter part of the disease, and then it should be combined with stimulants.

DR. J. LEWIS SMITH remarked that he was not aware that quinine exercised any curative influence over diphtheria except as a tonic, and in that capacity he did not object to its use. The quite intense fever which was usually present at the onset of the disease commonly subsided without the adoption of active measures for its control. At least, he was rather inclined to the opinion that the fever would abate without the use of large doses of quinine. He then related a case to which he was called in consultation, and where he found that the child had received forty grains of quinine daily. The child succumbed on the third or fourth day of the disease.

DR. J. C. PETERS said that he never gave quinine in the treatment of diphtheria, except late in the case, when the patient needed tonics. Brief reference was then made to a case of convulsions occurring in a child, and to whom quinine was administered in five-grain doses every four hours at first, then every six and eight hours, and finally it was reduced to a single dose on each Friday, as the original convulsion occurred on a Saturday. Some 250 grains of quinine had been given without producing a shadow of unpleasant symptoms. It was combined with syrup of coffee when administered by the mouth; it was also given in suppositories.

**UTERINE HEMORRHAGE FROM NERVOUS SHOCK.**

DR. O'SULLIVAN referred to a case in which labor was completed without accident or complication, and the woman was in excellent condition until the *fourth* day, when a draught of cold air struck her. She immediately felt a slight chill, and with the chill came a gush of blood from the vagina. The principle in the treatment was to give rest and avoid internal medication, such, for instance, as the use of ergot, etc., etc. The patient accordingly was kept perfectly quiet, and a Dover's powder was given. A slight hemorrhage occurred on the following day, and a still slighter one on the next day; but from that time the woman went on and made a complete recovery.

**THE USE OF ERGOT AT THE TERMINATION AND SUBSEQUENT TO LABOR.**

DR. SELL, in connection with Dr. O'Sullivan's case, remarked that he invariably gave ergot just as the child was being delivered, and continued it in gradu-

**MEDICAL SOCIETY OF STATE OF PENNSYLVANIA.**—The Twenty-ninth Annual Session of this Society will be held in Pittsburg on Wednesday, Thursday, and Friday, May 29, 30, 31, 1878, commencing on Wednesday, at 3 P.M.



ally diminishing doses up to the seventh or eighth day subsequent to labor. He did so in accordance with the teaching he had received at the Lying-in Hospital in Vienna. The guide in that institution was that ergot should be continued while the fundus of the uterus could be felt above the brim of the pelvis. Dr. Sell regarded this as an important item in the treatment of the puerperal case, and adopted it for the purpose of preventing subinvolution of the uterus. He had not seen any ill effects follow the use of the drug.

Dr. CARO thought it was unnecessary to administer ergot with the view of producing uterine contraction, when the uterus contracted firmly of its own accord, and he believed if Dr. Sell was aware of the effect the ergot was liable to produce upon the intestines, producing paralysis of the muscular coat and developing tympanitis, that he would discontinue its use. Perhaps the ergot might bring on spasmodic uterine contraction, but it would probably, at the same time, produce other and unfavorable results. If the placenta was removed and the uterus was well contracted, he regarded the use of ergot as unnecessary.

Dr. SELL remarked that he had never seen a case in which tympanitis had followed the use of ergot, such as referred to by Dr. Caro, and was firmly of the opinion that the effect produced by the drug was beneficial rather than otherwise.

Dr. HUBBARD said that he had not been able to see the propriety of administering a dose of ergot at the conclusion of a natural labor. Nor had he been in the habit of giving ergot if the uterus contracted firmly, with the view of reducing the size of the organ and keeping it reduced.

Dr. HALL remarked that he did not, in cases of natural labor, use ergot subsequent to the delivery of the child, unless there was some special indication that hemorrhage might possibly occur after he had left the house.

Dr. J. C. PETERS remarked that he used ergot shortly before the completion of labor or immediately afterwards, in three classes of cases.

*First.*—In those cases in which the woman at previous confinements had had undue hemorrhage;

*Second.*—In those cases in which the woman had suffered from severe after-pains in connection with previous labors; and

*Third.*—In those cases in which there has been subinvolution prior to the pregnancy.

In an ordinary labor without accident or complication, and occurring in a primipara, he had not been in the habit of using the drug.

#### ADHERENT PLACENTA—REMOVAL OF PLACENTA AFTER LABOR AT FULL TERM.

Dr. CRAMPTON referred to a case of adherent placenta occurring with the *fifth* pregnancy. The previous confinements had been entirely natural. The child had evidently been dead for some time previous to labor.

The placenta not coming away readily, the doctor introduced his hand into the cavity of the uterus, found the placenta firmly adherent over its entire extent, and with considerable difficulty removed it, the removal being accompanied with considerable hemorrhage. The woman was doing well.

Dr. Crampton remarked that it was his custom, if the placenta was not quickly delivered, to at once remove it by the introduction of the hand, if need be, into the uterus, as he was not able to see that anything was to be gained by waiting.

Dr. HUBBARD did not approve of the removal of

the placenta at once if there was a little delay in its delivery in cases of natural labor. If the process of labor was physiological, why interfere? If the placenta was adherent, and did not come away in due time, then we should proceed to deliver. He had waited *two* hours, sitting by the bedside, giving the uterus support by the hand and kneading the abdomen gently, and then seen the placenta delivered in the most natural manner. He believed that it was better to be guided by the processes of nature than to at once interfere. Twenty or thirty minutes was none too long to wait.

Dr. O'SULLIVAN believed in giving nature a fair opportunity to effect the delivery of the placenta.

Dr. J. C. PETERS did not believe in meddling with midwifery, but he had always made it a rule to deliver the placenta promptly. He insisted upon having firm support given to the abdominal walls and uterine tumor as soon as the child's head was born, and in nine out of ten cases he found the placenta lying in the upper part of the vagina, from whence it could be immediately removed without incurring any risk. He did not wait for the development of a pain, but pain was usually excited as soon as the manipulation was commenced.

Dr. HUBBARD was inclined to wait for the development of a pain before interfering with reference to removal of the placenta.

Dr. CARO said that, in remarks made upon a previous occasion, he had been misunderstood by some of his medical brethren with reference to the management of the placenta. He had been understood as advocating the immediate removal of the placenta in all cases. That impression he wished to correct. His practice was the following: *In cases of miscarriage*, if the placenta was not at once delivered, and there was no hemorrhage, no fetid discharge, no chill, no unfavorable symptom, the woman was comfortable, he allowed it to remain until the os dilated, etc., and nature made an effort at expulsion, or some symptom developed which rendered its removal necessary. His experience had been that such placenta were usually spontaneously removed within four or five days.

*In cases of labor at full term*, he followed Dr. Peters' plan almost exactly during delivery of the child, waited twenty-five or thirty minutes, and if the placenta was not then delivered spontaneously, he at once removed it by manual interference.

#### FOLLICULAR TONSILLITIS AND HERPETIC SORE-THROAT —CHLORATE OF POTASH AND RENAL DISEASE.

Dr. J. C. PETERS remarked that at the last meeting of the Section the question was raised: was there any connection between follicular tonsillitis and herpetic sore-throat? He then referred to a case of follicular tonsillitis, in which there was also a quite large patch of exudation upon the uvula. Whether there was any diphtheria in the case he was unable to say positively, but thought there was not.

The patient, an adult, was directed to take large pinches of chlorate of potash crystals upon the tongue, at first every hour, on the second day every two hours, and at the end of forty-eight hours every appearance of the throat-trouble was wiped out, but there had appeared a distinct herpetic eruption upon the lips. He had treated a large number of cases of follicular tonsillitis in the same manner, and uniformly with good results.

He had not seen any ill-effects following the use of the chlorate of potash, especially in the way of renal trouble.

Dr. J. LEWIS SMITH referred to a case in which a

child three or four years old had taken  $\text{ʒij}$ . of the chlorate of potash within twenty-four hours. When he saw the child it was unable to pass any urine, except a few drops of bloody urine, its face was livid, and death occurred within the following day. He thought that the people should be cautioned with reference to the indiscriminate use of chlorate of potash, which had become a popular domestic remedy.

Dr. HALL referred to a case in which an infant under one year of age took about  $\text{ʒi}$ . of chlorate of potash during a single night, with fatal result. There was suppression of urine, and the face was livid. He always took occasion to caution the people against the too free use of the drug.

Dr. O'SULLIVAN had feared the bad effect which might be produced by the remedy.

Dr. SMITH remarked that from two to four grains was the dose ordinarily used for a child.

Dr. HALL thought it should be well diluted when given.

Dr. PETERS remarked that he had not seen the slightest disagreeable effects produced by the use of chlorate of potash given as he had mentioned. His doses were probably not more than five grains.

Dr. SMITH remarked that in connection with disease in which there was a tendency to nephritis, as in scarlet fever, he thought it eminently proper to give caution regarding the use of chlorate of potash.

Dr. F. V. WHITE remarked that he had been in the habit of giving chlorate of potash freely, but had never seen any disagreeable results. He also directed attention to the fact that Dr. Jacobi had reported cases in which fatal results had followed the use of large doses of chlorate of potash.

Dr. CARO related the history of a case in which the possibility of chlorate of potash poisoning was suggested.

The topic selected for discussion at the next meeting was the treatment of puerperal eclampsia subsequent to labor.

The Section then adjourned.

## NEW YORK COUNTY MEDICAL SOCIETY.

*Stated Meeting, April 22, 1878.*

Dr. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

### BULBAR, OR GLOSSO-LABIO LARYNGEAL PARALYSIS—IMPROVEMENT UNDER ELECTRICAL TREATMENT.

Dr. E. G. JANEWAY presented a case of *bulbar paralysis* in which the patient had made marked improvement under the influence of electrical treatment. There was paresis of the lips and fibrillary tremor, paresis and fibrillary tremor of the tongue, difficulty in swallowing, some difficulty in pronunciation, muscular paresis and atrophy affecting the abductor and opponens pollicis. Under treatment the improvement had been so marked, that the woman was able to pronounce the letters C, S, and L very well, and she could also give an audible whistle. There had also been an increase both in the size and power of the affected muscles.

The treatment had consisted in the use of plexus-nerve and nerve-muscle currents for the arms, and nerve-muscle current for the tongue and face; galvanization of the sympathetic (superior cervical ganglion), with the continued and occasionally with the interrupted current.

### A DEMONSTRATION OF THE TREATMENT OF ANGULAR AND LATERAL CURVATURE OF THE SPINE.

Dr. LEWIS A. SAYRE gave a practical demonstration of the treatment of Pott's disease and lateral-rotary curvature by means of suspension of the body, and retention by the application of the plaster-of-Paris jacket.

Several patients with angular curvature of the spine were first presented. Of those, some were wearing the jacket with great comfort, while others gave evidence of having been completely cured by the plan of treatment. The object of treatment in Pott's disease was to remove pressure from the diseased vertebral surfaces and to prevent reflex muscular contraction.

Horizontal posture removed the pressure, but did not always prevent reflex muscular contraction; hence, distortion might occur, notwithstanding the beneficial effect which otherwise might arise from that plan of treatment. Confinement in the horizontal posture was also detrimental to the general health of the patient. For the purpose of maintaining the body in an erect posture and throwing the weight upon the transverse processes of the vertebrae, a great variety of mechanical apparatus had been devised. Of all the instruments which had been constructed for that purpose, Dr. C. Fayette Taylor's brace, *in its original form*, was the best. Dr. Sayre urged, as an objection to braces in general, that their removal and readjustment permitted motion to take place at the point where the disease was situated. *Continued rest* at the seat of the disease was one of the great essentials in the treatment of angular curvature of the spine; hence, it was desirable to have an apparatus which could be worn for weeks and months without removal.

One important objection to Taylor's brace was the fact that pressure made by the pads upon each side of the spinous processes obstructed the circulation at the very points at which it was necessary to furnish nutrition in the greatest abundance; hence, by its use, disintegration of the bones was favored rather than recovery.

Another objectionable feature of the brace was the part which passed over the top of the shoulders, and which had been added as an improvement upon the original instrument. The shoulder-straps were regarded as dangerous and injurious, because they prevented the extension necessary to remove the pressure from the bodies of the diseased vertebrae.

A great variety of instruments were exhibited and received the passing compliments of the doctor.

A plaster-of-Paris jacket was then applied to a man suffering from Pott's disease.

### LATERAL-ROTARY CURVATURE OF THE SPINE.

Dr. SAYRE then proceeded to make some remarks regarding the causes and the changes present in lateral-rotary curvature of the spine.

The principle of treatment was to make extension, and then retain the body in the extended position.

A variety of instruments were exhibited which had been devised for overcoming the curvature by making pressure at certain points upon the walls of the chest, and they were all rejected.

A plaster-of-Paris jacket was then applied to a young man while he held himself suspended from the chin and occiput. In conclusion, Dr. Sayre referred to the general good results which had followed the application of the plaster-of-Paris jacket in between sixteen and seventeen hundred cases, and read the opinion of Mr. Berkley Hill, regarding the great value



of the plan of treatment, as he had published it in the London *Lancet*.

Dr. Sayre was assisted by Drs. Louis H. and Charles H. H. Sayre.

DR. MITCHELL, of the Committee on the Abuse of Medical Charity, read a report, which was referred to the Comitia Minora.

The paper for the next meeting is to be read by DR. NICHOLS, of the Bloomingdale Asylum.

The Society then adjourned.

## Correspondence.

### THE PERSONAL EXPERIENCES OF AN EX-OPIUM HABITUÉ.

[THE following recital, by a physician who was the victim to the opium habit, is so interesting in its psychological bearings that it is presented in all its extravagance of expression and force of description.—ED.]

“Out of the jaws of death! out of the mouth of hell!”

Six months during the late war I endured the horrors of a Southern prison—a comrade and acquaintance of the late A. D. Richardson, who, when he escaped, forwarded to his journal a telegram with the above quotation. But how few realize the terrible import of those words. To be thrilled by the story of human suffering, graphically told, is much; but to undergo suffering which no pen or tongue can describe; to be encompassed with woe that mocks the imagery of a Milton; to be enveloped in a darkness which even his portrayal would contrast as midnight with the light of noontide—is more; *that* is to be where I have been.

I, a follower of Esculapius? Yes, as the world goes. Erudite in the realm of therapeutics? I so fancied myself. Had I not read that a prolonged use of opium gives rise to grave functional disturbance? Most truly. Did I not know its baneful effects when used habitually? *A priori* I knew absolutely nothing. Yet I believe I was no more ignorant than nine-tenths of those who have not to its seductive power fallen captive.

A victim to neuroses, which came as sequelæ to my prison-life, I began their alleviation by the hypodermic use of morphia. Complicated with these was a functional cardiac trouble, of which I had noticed how magically the morphine allayed its most distressing symptoms. Day after day, week after week, was the opiate continued, and, for the first time in twelve long years, I knew what it was to enjoy pure, unalloyed happiness, unbroken by a single pain. Nor clouds, nor gloom, nor slight offending to the soul or sense—naught that savors of discordant life was mine. This harp of a thousand strings in me was well attuned, and the deft harper—the morphian god—knew his business well. I had been embraced by the most beautiful sorceress of earth. Beautiful in her magnetism, for I saw her not—I *felt* her charms. Her beauty I conjured up to be, by special imagination, more divine than he proclaimed his own to be who wore a silver veil. Time came, the veil was drawn, and then a thing she looked—so black, so damned, that not in hell another could be found as horrible and vile.

To use a style that borders on the oriental may seem out of place in a paper prepared for medical

readers. This is not so; for the very effects of the mysterious drug show themselves in perturbed mental phenomena that cannot be too highly colored. The morphia victim dwells, after the first exhilaration is gone, in a realm of phantoms and shadows. I saw sights more terrible than can be imagined. I felt pains that do not belong to any mortal lesion. I have shrieked in my terror, but the shriek only awoke a myriad of devils who had been sleeping till then, unseen by me.

Four months of morphia addiction sufficed to bring me to this land of horrors, where no joy came or has come since the making of the world. My days were spent in self-indulgences. Alone in my office, in an easy-chair, I could, with poetry and interesting therapeutical works, manage quite comfortably to pass the hours away. But let a patient summon me from home, and my gloom and despondency were almost insupportable. I was tormented by a continual self-conflict. Conscious of the weakness of my efforts to emancipate myself, I kept on planning some new mode of attack in the nerveless hope that I could defeat the Lethæan devil whose throws were strong as steel; and yet I knew that, as day followed day, and week followed week, in so far as all this mental warfare was concerned, it could bring me no help in my awful bondage.

No dark imagery can paint the encompassing horrors of those nights of torment which belonged to the last two months of my twelve months' morphia addiction. Not one hour that I passed in bed between midnight and noon did I know normal sleep. In dreams that seemed more vivid than reality I entered gloomy caves, and walked for hours over rotten cadavers, sometimes forced to step on them and be overwhelmed with the loathsome odors. I saw faces in the weird darkness, sometimes a thousand at once, and each was made of blood-red flame. They flashed and went out. My nightmarish brain was chased and haunted by everything that can exist in a vast hell of phantoms.

But a waking reality, and one that made my heart knock at my ribs was, that through my mind oft came the thought: “How sharp and polished you know your bistouries are! How easily they would sever the coats of the carotids! Not your own only, but your children's also!” Then the exclamation, “O God! *this is madness!*”

I know only too well that that accursed road would have ended in homicide and self-destruction.

Physically, the morphia's destructive force with me was rapid. The torpor of the intestinal tract was absolute, and no movement obtainable but by calling to my aid a Davidson's syringe and scoop besides. Even with all these accessories I suffered pains that racked me to the core.

I do not propose to go into the pathology or etiology of opium addiction, but I proclaim it as my sincere belief that any physician afflicted with neurotic disease of marked severity, and who has in his possession a hypodermic syringe and Magendie's solution, is bound to become, sooner or later, if he tampers at all with the potent and fascinating alleviative, an opium habitué.

The first dose is taken, and mark the transformation! This overmastering palliative creates such a confident, serene, and devil-may-care assurance, that one does not for once think of the final result. The sweetness of such harmony can never give way to monotony. Volition is suspended. You may not think of it when the pain for which it was taken subsides. But when distress supervenes, you go at once for the

only balm that abounds in Gilead, and every additional dose is but another thread, however invisible, of which the web is made that binds us fast as fate.

I come now to the history of my escape. I need not tell of my efforts at self-cure. I need hardly speak of life without a future, of being excluded from a ray of hope. I did not expect it would be my good fortune to meet with helping hands, and, by their assistance, secure for myself—limed, fettered, and enthralled—freedom like life made new. If the black javelin of remorse ever pierced a human heart, lacerating its filaments with merciless barb; if ever Death came from his murky retreat to hang on human hope and promise his solemn draperies—if these to one have ever come, they came to me!

But the day of my deliverance drew nigh, and, from the first moment after passing the portals of Parrish Hall, I had no doubt regarding the successful issue, which, with me, amounted to a passion to be rid of the fatal drug forever. Under the influence of tonics and sedatives judiciously administered, after eight days had passed, during which pain and suffering were greatly mitigated, I came forth—free. Several days following I experienced latent neuralgic pains; but such was the exhilarating sense of freedom from the heavy hand that so long had held me down, I scarcely noted neurotic twinges which would have made me writhe at any other time.

In the institution I have mentioned, all the material surroundings were as desirable as the heart could wish. Psychically, I found myself in an atmosphere where all was pleasant.

Two months are nearly gone since I took my last hypodermic. I have gained in weight twenty-five pounds; I am able to enjoy a normal quantity of sleep. But even yet the nervous system shows the strain it underwent, for I feel at times an indescribable restlessness which, however, I can overcome by pedestrian exercise. I know I shall reach par in that direction by and by.

Finally, the effect of opium on the normal nature in the first stage of emancipation is bewildering. One is like a ship which has been sunken, but afterwards raised, refitted, and sails trimmed, but as yet helmless. The will, so long paralyzed, cannot be expected to be of normal strength. But, as time is required for the nerve-worn system to become tranquil and placid, so also will come strength in resolve, and, to worthy purposes, a volition equal to the task.

I am back among my patients, feeling now that I have a mission in life. Had I the power, I would destroy the last grain of the dread narcotic. It did not work its worst on me, but to him on whom it does, pity from the Everlasting would seem feeble.

What ruin it has wrought in me will be made right again. I have one song—

"Time, the avenger! unto thee I lift  
My eyes, and hands, and heart!"

M. D.

#### ROYAL VICTORIA DISPENSARY (NORTHAMPTON, ENG.).

—The revenue for the year 1876-1877 was £3,698, the actual receipts being £2,356. The amount paid to the three medical officers was £1,805, who attended to 54,908 cases, as follows: 32,014 at the patients' own houses, 16,233 at the houses of the medical officers, and 6,661 at the dispensary. The cost of drugs was £316. The balance in the treasurer's hands at the end of the year (1877) was £1,261. This is the thirty-third annual report, and appears to show the institution to be in a highly satisfactory condition.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 5 to May 10, 1878.*

CLEMENTS, B. A., Major and Surgeon. Granted leave of absence for one month on Surgeon's certificate of disability. S. O. 37, Dept. of the Platte, May 1, 1878.

WOODHULL, A. A., Major and Surgeon. Relieved from duty at Angel Island, Cal., and assigned to duty at Point San Jose, Cal. S. O. 69, Div. of the Pacific and Dept. of California, May 2, 1878.

CALDWELL, D. G., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, and to comply with S. O. 9, C. S., A. G. O. S. O. 92, Dept. of Texas, April 30, 1878.

NEWLANDS, WM. L., First Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at the Angel Island, Cal. S. O. 69, C. S., Div. of the Pacific and Dept. of California.

STYER, CHAS., Capt. and Asst. Surgeon. Granted leave of absence to June 30, 1878, and his resignation accepted by the President, to take effect June 30, 1878. S. O., A. G. O., May 3, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 11, 1878.

| Week Ending      | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| May 4, 1878..... | 0             | 4              | 69             | 2                          | 55       | 41          | 0          |
| May 11, 1878.... | 0             | 5              | 70             | 0                          | 58       | 45          | 1          |

SANITARY CONDITION OF NEW YORK HOUSES.—It is notorious that a large percentage of New York dwelling-houses, especially those not of recent construction, are defective in regard to their sanitary arrangements, the plumbing work is also badly constructed, affording no protection against the escape of dangerous and noxious gases from the sewers, even to sleeping apartments. An instance occurred last week at 114 Waverly Place, which might have had fatal results; as it was, a family of five were prostrated by reason of sewer-gas permeating the whole building. In this case, Dr. Alfred S. Purdy forwarded a report to the Board of Health, which responded with commendable alacrity, immediately dispatching an inspector to survey the premises. The report of Dr. R. L. Wilder fully confirmed the worst suspicions that had been entertained, there were no traps under any of the wash basins or bath tubs, and a free passage for sewer gas was therefore given; the water closets were also defective, and both the soil and sewer pipes were undersized. The Board of Health have given preeminent orders for the necessary repairs and sanitary improvements, and we record with pleasure the prompt attention given by the Board of Health to the requisition of Dr. Purdy; the present case proves how much good can be effected by hearty co-operation between the Board of Health and the medical profession, and we accept it as a harbinger of future good results.



## Original Communications.

### PHYSICAL SIGNS OF INTERPLEURAL PATHOLOGICAL PROCESSES.

By J. R. LEAMING, M.D.,

SPECIAL CONSULTING PHYSICIAN IN CHEST DISEASES FOR ST. LUKE'S HOSPITAL, NEW YORK.

IN health the pleuræ are smooth, opposing surfaces, free in motion, and lubricated by their natural secretion. They cover the inner costal wall, the outer surface of the pericardium, nearly the entire upper surface of the diaphragm, and all the surfaces of the lungs. They help to form the mediastinum, and surround the origin of the great vessels and of the air-passages. In short, they line the great acoustic chamber of the chest, and cover the sound-producing organs which it contains. The constant motion of these organs gives voice to their action, and breathes into the ear of the auscultator an harmonious idyl of health, or whispers and mutters of the discordances of disease.

The acoustic properties of the normal chest are so perfect that the most delicate signs, such as true respiratory murmur or aortic regurgitation, are delivered through its walls to the ear without loss or change. The healthy pleuræ are no obstacle to the free passage of sound, and at the same time are no cause of sound in themselves. It is like looking into an open room filled with light.

But at the first trace of an inflammatory process they cease to be silent themselves, and modify or prevent sound passing through them. It is like looking into a room filled with cloud, through obscured glass; nothing is clearly seen.

The pleuræ are prone to diseased change. Mental depression, physical exhaustion, or sudden alternations of temperature, may cause hyperæmia, and plastic exudation is then likely to follow. It is a vital process, but indicates a diseased condition of organic life. It occurs in cellular tissue and on serous surfaces—very frequently on the pleural. Comparatively few autopsies are made without discovering more or less of interpleural thickening and adhesions.

"Physicians of old did not regard them as preternatural; nor do many at the present day consider them as necessarily connected with inflammation. This opinion is founded upon the fact of these adhesions being met with in individuals not known to have suffered from any inflammatory affection of the chest. But, until satisfactorily traced to some other cause, it would appear more proper to refer these exclusively to an inflammatory origin." (Hassé's *Path. Anat.*, p. 182.) The process may be summarized as follows:

First, local vital exhaustion, vaso-motor paresis, stasis, hyperæmia; then the white globules, "the wandering amœba," pass through the meshes of the walls of the capillaries, and, unless immediately absorbed, organize and result in adhesions and thickened pleura.

More or less of impaired health follows, with obscure symptoms. New exudations take place from time to time, crippling the respiratory organs, and seriously implicating the circulation, until the patient dies, worn out, with resulting complications of all the vital organs.

These serious pathological results have hitherto been unrecognized, except in part and inadequately,

during life by physical signs. In March, 1870, I had the honor of reading a paper before the New York Academy of Medicine on Pleuritis. In the discussion which followed, Dr. Flint, Sr., remarked that "He was not aware that there are any distinctive physical signs of permanent adhesions, that can be depended upon as pathognomonic." This was undoubtedly then, and perhaps is largely yet, the received opinion of the profession, Dr. Walshe alone, among the authorities, interpreting certain physical signs as of adhesions and pleural thickening. I had adopted from my teachers the generally received opinions; but considerable clinical experience, obtained in the class of chest diseases at Demilt Dispensary, caused me to question their truth. There were repeated occurrences which seemed to me to furnish incontrovertible proof that many of the physical signs of the chest had been misinterpreted. But even yet I was not prepared to give up my preconceived idea of the local origin of mucous and crepitant râles.

But about ten years since, a patient came into St. Luke's Hospital, from Bellevue, with a disputed diagnosis. The case had been affirmed to be one of simple hydrothorax, and then again to be hydropneumothorax. Both opinions were correct. Upon examination it was found on the right side that there was dullness and loss of respiratory murmur up to about three inches above the diaphragm; and bordering the upper line of dullness, and encircling the lung, there was crepitus and subcrepitus. It was simple circumscribed hydrothorax. But upon directing the patient to take a forced inspiration and hold the breath, air was forced into the artificial chamber made by the adhesions, and the case was immediately changed into one of hydropneumothorax. In a little while the air escaped, and the case was as at first. To account for this it was necessary to suppose that there was a valvular opening, through which air could come from the lung. The fluid was removed by intercostal incision, and the case kept under observation. After a time, the left side showed signs of disease. There were mucous râles and gurgles, and progressive loss of weight and strength. The case was frequently referred to as an example of tubercular phthisis. The râles were of various sizes, and were considered as signs of tubercular infiltration and honey-combed cavernules.

At the autopsy the circumscribing adhesions, with the valvular opening in the lung, were found on the right side, as was expected; but, to our astonishment, there was no structural change in the left lung. Between the pleural surfaces, however, there was a large amount of plastic exudation, together with a small quantity of viscid fluid; at many points also there were firm adhesions. These interpleural deposits were evidently the only source of the sounds I had misinterpreted as signs of the tubercle and tuberculous cavities of small size. I was convinced that the same conditions had frequently deceived me in other cases.

Since then, I have, in repeated instances, carefully noted and recorded the locality of râles and their distinctive characteristics, for the purpose of testing them in relation to pathological conditions, to be revealed by autopsies. In no instance have I found them to disagree with the interpretation that their cause lay in an interpleural process.

The following case is one in which old, firm, and close interpleural adhesions drew the heart upwards, and caused murmurs by displacements.

CASE I.—J. S. T., an honored member of our profession, called on me in company with Dr. Otis, in the spring of 1876. About seven years before he had

pleuro-pneumonia, and several times since slight attacks of pleurisy. He was short of breath, and distressed after exertion, or on going upstairs; he had at times severe pain in the region of the heart like angina. Aneurism of the aorta and valvular disease of the heart were feared.

Examination discovered some dulness at the summits of the lungs. There was flat wooden percussion note over both. There was very little expansion, and the movement of the chest was restricted. There were a few râles of various sizes over the greater part of the chest. At the lower angle of the scapula of the left side, there were no râles, nor any movement of the lung even in forced inspiration, but coughing produced short fine crepitus immediately under the ear.

True-respiratory murmur was feeble generally, but absent at the apices of both lungs. The apex beat of the heart was between the fourth and fifth ribs, a little to the left, and there was a systolic murmur.

Diagnosis: old extensive adhesions over both lungs; no disease of the heart or of the arteries.

On the 12th of October, 1876, he received a wound, to the right of the sternum over the right auricle, by a piece of a brass tube imbedding itself in the lung and the pericardium. Pericarditis and pneumonia followed, and he died on the 20th.

The day before his death, and probably for some time previously, there were abundant soft "mucous" râles. These were diagnosed also as interpleural. The autopsy revealed pericarditis and pneumonia of the whole of the right lung, which was consolidated—the mould of the ribs remaining on its surface after it was removed from the chest.

If, now, no air could have entered the lung. New exudation had taken place among the old adhesions, and efforts at respiration moved the chest-wall over the solid lung, thus producing "mucous râles."

CASE II.—Is kindly given in a letter from Prof. J. L. Little, and is equally decisive: "My dear Doctor, I cheerfully comply with your request, that I would furnish you with the points in the history of a case bearing on the subject of your paper. I was called to see a patient in consultation with Dr. Röddiger, on August 14th last, and found a man about forty-five years of age, who was suffering slight pain in the left side—no cough, no expectoration, high temperature and frequent feeble pulse. On auscultation, subcrepitant râles could be heard on the posterior surface of the left side of the chest. These were more abundant and of a much coarser quality at the upper part of the lung, although more or less subcrepitation could be heard from apex to base. On percussion, flatness was discovered over the entire upper portion of lung; the lower showed but slight dulness. I saw the patient in consultation on the 17th, 13th, and 19th. At the last visit, eighteen hours before death, subcrepitation was heard, as at first examination. On forced expansion after coughing, the râles were markedly increased in number, and seemed to be very near the ear. Patient died August 20th. Autopsy by Drs. Röddiger and Nesbitt. Left lung was found solid with pneumonia, except the lower part of the inferior lobe. The upper was in a state of gray hepatization, the middle red. The lower part was very much congested, but crepitated on pressure. The pleuræ were covered with plastic exudation, but the adhesions were slight. The false membrane covering the upper third of the lung was three or four millimetres in thickness. The lower portion was covered with only a thin layer. In this case, Doctor, the râles heard over the posterior surface of the chest were without doubt due to the exudation on the surface of the pleuræ. No air could

possibly have entered the upper or middle portions of the lung for some days before death.

"Yours truly, J. L. LITTLE."

These two cases are evidence of a positive character verified by post-mortem examination.

CASE III.\*—C. M., saleswoman, eighteen years old, came to my office for examination on the 14th of September, 1877. Percussion-note dull over lower part of left lung in front and up to the middle of inter-scapular space behind. There was bronchophony, bronchial breathing with subcrepitant râles. At the lower portion of the lung in front was *fine crepitus*. As the lung was consolidated by pneumonia no air could enter it, and consequently the râles must have been in the pleuræ. This evidence is further corroborated by the fact that since then the pneumonia has cleared up, resonance returning, but subcrepitant râles remain in place of the crepitant.

These three cases may be regarded not as unusual, but as typical, and they furnish proof: 1st. That mucous, 2d, that subcrepitant, 3d, that crepitant râles may all have their local origin within the pleuræ.

It is difficult to overcome preconceived opinions even with evidence perfectly conclusive to an unprejudiced mind. Still the facts, which I have given, and others which I shall further relate, must commend the subject to all candid observers.

Has the generally received opinion that all large, soft, moist râles are caused by bursting bubbles in the bronchi ever been put to the test of careful experiment? On the contrary, is it not the general experience that abundant mucous râles may exist without expectoration, and profuse expectoration without râles, or only with such as are distant from the ear, and which disappear upon expectoration? Has not the received opinion that all the râles of whatever size, liquidity or dryness, have their origin in the lungs, and that the size of the bronchia determines the size of the râle, been adopted by pupil from teacher, from the time of Laënnec to the present, without regard to the obvious fact that the large râles are most frequently heard over portions of the chest where the bronchial tubes are very small, and the small râles where they are large?

Early auscultators explained the respiratory murmurs of health, as well as the rhonchi of disease, as being formed by the air passing through the bronchi into the vesicles and out again;—that the friction of this body of air in motion caused vesicular murmur and bronchial breathing; and that should mucus collect, it would be moved along bursting bubbles in its way—crepitant, subcrepitant and mucous, according to the size of the râle. Later, another theory was proposed, and by many adopted, which still regarded the size of the tube as governing the size of the râles. According to this theory, the tube being lined with adhesive mucus, collapsed after expiration, and the sides cohering, inspiration would again force them apart, causing râles. Neither theory recognizes obstruction to the free passage of air into the air-sacs and out again, yet the residual air certainly occupies the true respiratory system and does not admit air moving in a body. The tidal air physiologists estimate to be about one-tenth part of that in the lungs. So that after expiration there still remains nine-tenths, occupying the true respiratory system. This is the residual air. When inspiration again takes place the

\* This case is of a class common to all practitioners, and is introduced as such. It has no novelty, but after the post-mortem evidence of Cases I. and II., the clinical evidence of consolidated lung becomes proof of the impossibility of the râles being interpulmonary.



column of *in*-moving air passes in a body to about the third or fourth division of the bronchia, and can go no further, but mixes with the residual air, obeying the law of the diffusion of gases.

It is evident, in view of these facts, that both theories are impossible. The existence of so large a mass of residual air in the air-cells and smaller bronchial tubes, and also the existence of consolidated lung tissue (in which solid material fills the spaces previously occupied by the residual air), both show conclusively that all râles called crepitant and subcrepitant, when heard under these conditions are not intrapulmonary, and that mucous râles, when not clearly traceable to the large bronchi, are also not intrabronchial, and consequently all râles not clearly traceable to the larger air-passages are interpleural.

Mucus in the upper bronchia may cause *mucous râles*, which are intermittent. The mucus accumulates, the râles are heard; it is expectorated, and they are gone. In suffocative catarrh, and in approaching dissolution, the râles are continuons.

It would seem possible that fibroid lung could also produce subcrepitation in cases where the lung is adherent to the chest-wall. But of this I have no proof.

The following case of fibroid phthisis was characterized by a variety of râles and rhonchi, which would deceive any one who did not recognize them as signs of an interpleural pathological process. They were very suggestive of cavernulous phthisis and of disease of the heart.

CASE IV.—W. S.—, about sixty years of age, merchant, while in Scotland in 1874, had pneumonia, and since then had had frequent colds, causing short, spasmodic cough, with gradual increasing dyspnea. He came under my care early in 1876. His breath was short and hurried. There were râles over both lungs; in some places coarse and rattling, and in others smaller, even fine crepitus. At the lower part of the right interscapular space, and below the scapula, they were coarse, moist, and gurgling. Under the right axilla down to the diaphragm there were creaking as well as dry râles. Under the left clavicle there were mucous gurgles, and under the left scapula there were fine crepitant and subcrepitant dry râles. There was general flatness under percussion, with raised pitch over most of the chest. There was an audible systolic murmur at the apex beat. The impulse was felt almost as high as the nipple, and there was also impulse in the second interspace.

The diagnosis was extensive plastic exudation between the pleural surfaces, forming adhesions which had drawn the lungs and heart upward. The dyspnea and cardiac complications were the consequence of these changes, and there was no other serious lesion. At first he improved under treatment, and gained more than an inch in chest expansion, and was able to get about with much less difficulty than before treatment, but in May an attack of pneumonia increased the amount of plastic exudation, and he lost more by subsequent contraction than he had previously gained in expansion. During the summer, in the country, he was under the immediate care of Dr. Ely, of Newburg. He was able at times to ride out, but renewed attacks of exudation lessened his vital capacity, and finally, after another "cold," he had increased disease, from which he died Oct. 8, 1876.

*Autopsy* by Prof. Delafield, Oct. 10th. Present. Drs. Jones, Dudley, G. A. Peters, Ely, and Leaming.—"Body much emaciated, cadaverous discoloration already evident on abdomen. *Pericardium* contains a little serum. Apex of heart on level with lower edge of fourth rib—distant three and one-fourth inches

from median line. Upper border of heart on level with lower edge of first rib. Long axis of heart turned somewhat in vertical direction.

"*Lungs*.—Left side, very extensive old adhesions covering the entire lung. Left lung, upper lobe at the apex, some bands and patches of pigmental fibrous tissue. Lower lobe, lower third, bands of new fibrous tissue and red hepatization—the red hepatization is recent. Right lung, old adhesions over entire lung. Upper lobe, the same diffuse fibrous tissue, but more abundant.

"*Heart*.—Right ventricle contains large yellow post-mortem clot. Pulmonary valves a little thickened at their attached edges. Ventricle a little dilated, walls of normal thickness, tricuspid valve a little thickened.

"*Left ventricle* contains a small post-mortem clot. Cavity rather diminished. Walls normal thickness.

"*Aortic valves* somewhat atheromatous and stiffened, and on ventricular aspect of one leaf a small fibrous projection. Mitral valve a little thickened and atheromatous.

"*Kidneys*.—Normal size, capsule not adherent, surface smooth, cortex normal in appearance and thickness. Aorta markedly atheromatous."

(Signed) FRANCIS DELAFIELD.

In this instructive case the physical signs were interpreted during life to mean just what was found at the post-mortem examination.

It is needless to say that the ordinary interpretation would have made out a diagnosis of phthisis with cavities and structural disease of the heart as the cause of death. Is it not important that such a mistake should be avoided?

The first step in these complicated pathological changes was plastic exudation between the pleurae, which, becoming organized, formed adhesions, and these in turn gave rise to all the subsequent diseased conditions in the lungs and of the heart.

CASE V.—M. M., æt. 40, single. Saw her in consultation with Dr. E. D. Hudson, Jr., September 7, 1877, morning. Heart and great vessels gave no evidence of disease. Pulse and cardiac sounds were feeble and frequent, suggesting fatty degeneration. Chest expansion was not more than half an inch; respiratory murmur very faint; very little air entering the lungs. No disease of the lungs or pleurae was discovered. But there was evident obstruction in the air-passages, the patient gasping for breath. Lung free from dulness. Highest local pitch in respiration traced to the larynx, and the obstruction was believed to be at this point.

The laryngoscope, in the skilled hands of Dr. Leferts, proved this opinion to be erroneous.

Evening.—Consultation with Drs. Hudson and Lincoln. There was now found, at the summit of the left lung, perceptible dulness and flatness under percussion, and soft tearing râles in auscultation, conditions which had developed since morning. Respiration was more difficult, and during the examination became so great that unconsciousness resulted. No time was to be lost, and Dr. Lincoln performed tracheotomy, and the obstruction was found to be below the trachea. No evidence of aneurism was discovered. Dr. G. F. Shady informs me that he refused to give this patient ether for an operation previously, because he suspected aneurism. Death occurred early on the morning of the 8th.

*Autopsy*, afternoon of the same day, by Dr. Hudson, in the presence of Drs. Leferts, Hitchcock, and Kemp.—"Cause of death, aneurism at the posterior surface of arch of aorta descending. Trachea and bronchia

atrophied by the pressure of the tumor. Heart fatty, lungs reduced in volume, but normal otherwise. At the left apex the opposed pleural surfaces were agglutinated, the soft adhesions offering slight resistance in separating. Several older, organized but elastic adhesions spanned the left pleural cavity." (Notes of the autopsy kindly furnished by Dr. Hudson.)

This case is evidence that plastic exudation may be diagnosed as soon as it takes place. There were neither râles nor dulness in the morning, but there were both in the evening, and fresh plastic material was found at the autopsy. Hasse says: "The first appearance of inflammation of the pleura consists in a congested state of its blood-vessels, which are seen congregated here and there, in dense, though delicate nets, beneath the still transparent membrane. At certain points the bright-red color deepens and becomes more equalized; these points are somewhat prominent, and, though scattered at first, presently crowd together and get encompassed with a progressively enlarging zone of gorged blood-vessels. At the same time patches and streaks are observed either darker than the rest, and not unlike little ecchymoses, or else of a pale red hue, as if from imbibition. The pleura now speedily loses its smoothness and polish, becoming dull and looking, as Laënnec expresses it, as if daubed over with a paint-brush. This redness gradually spreads until in most instances the whole, says 'Gendrin,' becomes uniform."

"The first rudiments of an adventitious membrane now become perceptible, the spots originally reddened, and that chiefly by repletion of the vessels, presenting little dull white or yellowish points which rise above the serous surface in the shape of flat granules, and ultimately coalesce." (Hasse's *Path. Anat.*, p. 183.)

All of the pathological changes described above, from the first congested blood-vessels in nets to the final covering of the whole pleura with lymph, produce the following signs: First, muffling; second, alterations of the respiratory murmur; and then, finally, râles and rhonchi, indicating exudation of plastic material. Every step of the pathological process is characterized by its appropriate physical signs.

Experience and a nice education of the ear make an early diagnosis easy and certain, and enable the practitioner to use remedies which, if employed in good season, remove the disability and the danger.

CASE VI.—(Plastic signs removed by hygiene).—F. J., about 26 years of age, while at business in Wall Street, in 1874, suddenly began to raise blood, and came immediately to my office. There was an area over the right scapula, where soft tearing râles could be heard, and there was also flatness under percussion. He was advised to take a walking expedition of two or three weeks' duration. This he did, and returned in health, not a vestige of the plastic râles remaining; nor has he had any return of chest signs or symptoms since.

It is possible that had he remained at his exhausting business under all the depressing influences which had produced their conditions, his lowered vitality would have been still farther depressed, and his case would have resulted in phthisis, as many others have done—so important is it to connect physical signs correctly with their true pathology.

Plastic exudation upon the pulmonary pleural surface has the immediate effect of obstructing the capillary circulation in that part of the true respiratory system which subtends the deposit. If it is not quickly reabsorbed, it becomes organized, and contracts, causing still greater obstruction. Hemoptysis

frequently results—it may be immediately, but in most cases not until after two or three weeks, or even longer.

The reason of this is evident, if we consider the minute anatomy of the circulation of the true respiratory system. The nutrient arteries of the lungs are derived principally from the bronchial, and differ from all others in the body, in the fact that they have no returning veins; no *venæ comites*. The nutrient capillaries after performing their special function, anastomose with the radicles of the pulmonary vein, and their blood is reënterated even while performing its office, and hence, notwithstanding this apparent anomaly, arterial blood is alone forced into the left heart.

Consequently obstruction to the nutrient capillaries throws their blood back upon the bronchial arteries, which might seriously interfere with the circulation, except for a provision of nature, by which mucus is exuded copiously through the mucous membrane (bronchorrhœa), or perhaps blood (bronchorrhagia). So that either may be an important symptom of plastic exudation, and if carefully sought for, the plastic râles will be found.

CASE VII.—G. B., a distinguished surgeon, April 1, 1876, had pneumonic sputa; pulse 100, temperature 100°. Had some oppression in breathing, but no pain. Auscultation discovered no râles on either side. True respiratory murmur was everywhere good, except over a part of the middle lobe of the right lung—a space about as large as the palm of the hand—where there were also perceptible dulness and raised pitch. Diagnosis: Centric pneumonia of the middle lobe of the right lung. The next day the pulse was 70 and the temperature 97°. Sputa the same as the day before, and so it remained on the 3d and on the 4th. Subsequently, the temperature was as low as 93°.

On the night of the 5th of April he suffered great dyspnœa, and auscultation found abundant râles of crepitant and subcrepitant size, covering that part of the middle lobe of the right lung, posteriorly, over which true respiratory murmur was absent at the first examination on the 1st of April. The centric pneumonia had extended to the pleural surface, exudation had joined the pleurae together, and crepitant râle and bronchial breathing were plainly heard. The dyspnœa from which he suffered was the consequence of these adhesions.

He gradually improved until the 27th of April, when he went to Fortress Monroe for change of air. Shortly afterwards he had a return of dyspnœa, and as it increased, he came home on the 5th of May. He now had moist tearing râles low down on the *left side*. The heart was restrained in motion, and the first sound was altered in character. These signs indicated fresh plastic exudation in the left pleural cavity, as a result of which attachments had formed with the pericardial sac, and with the lung, altering the heart sounds and giving an intraventricular murmur at the apex. During the rest of the month of May and of June following, there was progressive plastic exudation, invading more and more of the pleura, and causing distressing dyspnœa.

From the first there had been albumen in the urine, with some casts. But in July there was notable improvement in all the symptoms; yet the râles remained, and exercise was exhausting. In the latter part of August he returned to the city and attended to some professional duties; was out riding daily, and visited the hospitals. But late in the autumn one chilling day, at the hospital, he took cold, and was



again obliged to keep his room. There was another advance in plastic exudation in the left side; the heart was more restrained by tightening bands of adhesions; there was general and gradual failure in health, until the 6th of March, 1877, when he died.

*Autopsy* by Dr. Abbe.—“March 7, 1867—*Pleura*: Each cavity contained about a pint of clear serum.

“*Right lung*, bound by old plastic adhesions over pectoral and inframammary regions and to the pericardium; latterly over entire axillary region, and somewhat below, though not to the diaphragm. Posteriorly along spine up to the summit of the lung, where the apex was completely adherent.

“*Left lung*.—Apex adherent and firm, thence extending along the spine two-thirds downward to base of lung; also bound at upper part of subscapular region. Three or four fine bands of recent plastic extended from pericardium to left lung. The lungs were not diseased.

“*Liver* somewhat contracted and fatty. Gall-bladder contained perhaps a dozen small concretions not larger than mustard seeds.

“*Spleen* somewhat hard and fibrous, tightly adherent to extreme of left lobe of liver by old and thick adhesions; also adherent to peritoneal wall, to the omentum, and to a little of the intestines.

“*Kidneys*.—Both somewhat contracted, the right much more than the left, weighing about three ounces; both somewhat cirrhotic and granular, and containing numerous small cysts, varying from the size of a small pea to that of a bean; both congested.

“*Heart* considerably enlarged; valves ample, but somewhat thickened (especially on the left, by atheromatous changes, fatty, etc.), beginning atheroma of the aorta, though without calcareous plates.

“*Intestines and bladder* normal. *Brain* not examined.”

(Signed) ROBERT ABBE, M.D.

About two years before his last illness, he had an attack of erysipelas, and at that time careful examination revealed no sign of kidney disease.

When first seen on that first day of April, 1876, there were no signs of chest disease, except slight dulness on percussion and the loss of true respiratory murmur over a space about three inches in diameter, over the back part of the middle portion of the right lung. There were no râles nor rhonchi until the night of the fifth, when subcrepitant and crepitant râles appeared exactly in the place where the loss of true respiratory murmur had first been observed. After this they were never absent, but gradually extended until they covered both lungs, becoming firmer and dryer as they grew older.

It would seem that lowered vitality had placed the capillaries of all the organs in a state of paresis and stasis, whence resulted plastic exudations—a general breaking down, in which all the vital organs were sufferers.

CASE VIII.—(Notes and autopsy by Dr. Stedman, of House Staff).—“M. A. S., seamstress, admitted to St. Luke's Hospital, September 29, 1877. Has been feeling ill since last spring; has had cough; lost flesh and appetite. The patient is not complaining much of her chest, but comes to be treated for intermittent. She had a chill on the morning of admission.

“Oct. 10th.—Has had a chill every other day since admission. Examination of chest to-day shows that the right lung is free in movement in front without râles, but that there are some râles and signs of thickened pleura in the lower part of this side behind. Over the left lung there are plastic exudation râles, both in front and behind. Closer adhesions (fine

dry râles) below. Soft râles are heard in the upper part, but they grow harsher downwards.

“Oct. 22d.—Patient has had no chill since the 11th. At nine o'clock this evening was seized with hæmoptysis and died from suffocation before any aid could be given.

“Oct. 24th.—*Autopsy*.—Right lung free from adhesions, except at lower part, behind. Left lung bound to the chest loosely above, more firmly below, both anteriorly and posteriorly. Lung filled with tubercles (caseous concretions), and two newly-formed cavities, one at the apex and the other at the middle of the upper lobe.

“Into this latter the hemorrhage had taken place from an eroded vessel the size of a crow-quill. The bronchial tubes and trachea were filled with blood. The pericardial and pulmonary pleura were firmly adherent.”

The points of interest in this case are: 1. That the interpretation of râles as denoting an interpleural pathological process was correct.

2. That caseous deposits in small scattered masses may fill the lung without being detected when loose adhesions shut off sound, and especially when the true respiratory murmur is feeble or absent.

When the adhesions are firm and close, sound is more directly transmitted, and the pathological condition of the lung may be more easily diagnosticated.

3. Fatal hemorrhage nearly always takes place suddenly. A softened caseous deposit opens into a bronchus, and at the same time erodes a blood-vessel of some size, and the cavity and air-passages are immediately filled with blood, and the patient dies as by drowning.

CASE IX.—Pietro Angelo, æt. 29, Italy, sailor, admitted to St. Luke's Hospital May 1, 1877. Had articular rheumatism, for which he was successfully treated with salicylic acid.

June 10th.—Was examined with the expectation of discovering heart lesions, but none were found; but there were signs of a cavity under the clavicle of the left side. Dry, crackling râles were found over the left side, and in the region of the heart there were a few râles synchronous with the heart-beat.

*Diagnosis*.—Cavity in clavicular region; old adhesions over whole of lung; also adhesions between the left lung and the pericardium. Right lung free. Patient says he has had cough for some time; complains of no pain, and did not think he had any disease of the chest.

June 20th.—Patient has had high temperature for a day or two. Examination shows abundant soft râles in left side, large and small, which have supplanted the dry râles synchronous with the heart's motion.

July 1st.—Patient is losing flesh, and has cough with purulent expectoration. A creaking sound is heard in the region of the heart, synchronous with the movements of the lungs and also with those of the heart.

Aug. 1st.—Patient failing; considerable expectoration, difficult breathing, hectic, and night-sweats.

Sept. 3d.—Patient complains of severe pain in the right side, with increased dyspnoea. Examination showed moist, tearing râles with each respiration over right lung, the one hitherto healthy. On the left side, in front, a harsh leathery creak is heard, but no râles synchronous with the heart's motion, although it is evidently restrained; behind, low down, there are numerous dry subcrepitant râles.

Sept. 14th.—Died at 5 p.m.

*Post-mortem*, Sept. 15th, seventeen hours after death. —“Right side of chest: adhesions over whole lung, attaching it to the chest-wall, but soft and easily sepa-

rated by the finger. Left side: the lung is firmly adherent to the chest-wall and also to the *pericardial sac*, and could be separated from them only by dissection. There is a dry tubercular or caseous deposit in upper part of right lung, and a good-sized cavity in upper part of the left."

(Signed) T. L. STEDMAN, M.D.

It will be seen that the soft adhesions easily detached in the right pleural cavity agree in age entirely with the appearance of moist râles of Sept. 3d. The evidence is decisive, for there was no disease of the lung nor of the bronchia to cause râle. The dry harsh râles of the left side also agree in physical conditions (firmly adherent, could only be separated by dissection) in age, with the time they had been under observation. In both sides the age of the adhesions was correctly diagnosed by the physical signs. Another very interesting fact, and of practical importance, is brought clearly into the light, viz., that of diagnosing adhesions between the pericardium and the lung, or between the pericardium and the mediastinum, by the sign of râles synchronous with the heart's motion. These signs are not uncommon, and are additional evidence of the interpleural origin of all râles. Cog-wheel respiration is due to adhesions between the lung and the pericardium. If the patient takes a full inspiration, the broncho-respiratory murmur will be interrupted by each beat of the heart during the inspiration, and also during the time while the breath is held. The motion of the heart bringing into sudden tension the adhesions, stops the respiratory sound for an instant at each beat. If the attention is fixed upon the recurrence of these interruptions it will sometimes be possible to analyze this short rhonchus, and to distinctly recognize that it is made up of fine crepitant râles. Occasionally it is heard to the right of the sternum near the cartilage of the sixth rib, and at the diastole of the heart, simulating aortic regurgitant murmur, except that it is not heard to the left of the sternum. In this position its crepitant quality may be very manifest. The adhesions are between the pericardium covering the right auricle and the right lung. When the pericardium is attached to the mediastinum, a systolic murmur of the heart may result. So that interpleural signs falsely interpreted lead to incorrect diagnosis as regards diseases both of the heart and of the lungs. Many other cases are recorded which furnish equally strong proof of the correctness of the views here advocated.

The late Dr. Sprague, of Fordham, at the House of Rest for Consumptives, made about forty autopsies, in which the evidences were conclusive that the localities of râles were the sites of adhesions; that the localities of adhesions, unless so tight as to prevent all motion, were always the sites of râles. Dr. Sprague's eminent ability and painstaking assiduity render his observations of great value. I am fully persuaded that if those having opportunities will note the locality of râles for the purpose of verifying at autopsies the presence of adhesions, it will become impossible to doubt the mechanism of their interpleural production.

What diagnostic interpulmonary signs have we remaining, if all the râles and rhonchi hitherto considered as evidence of pneumonia, bronchitis, capillary bronchitis, œdema of the lung, tuberculosis, cavities, etc., are to be interpreted as of interpleural origin? Need we be anxious about the consistency of Nature? May we not leave all that to her, resting assured that as our knowledge is increased we will become more consistent observers, and see that she is always right? It is all-important for correct diagnosis, and in the

treatment and management of disease, that the physical signs should indicate the pathological conditions. The very frequent mistake of treating bronchorrhea for bronchitis, and ignoring the interpleural pathological cause, until the lung is irretrievably crippled, will be avoided. If we recognize the earliest signs of plastic exudation between the pleura we are enabled in all ordinary cases to promote its entire absorption. But if the favorable time is allowed to pass the exuded plastic material becomes organized, and even, if but of limited extent, may be from time to time the focus of renewed exudations, until the whole lung is bound to the chest-wall. Fibrous bands also extending through the pulmonary tissues contract, as they grow older, and finally result in the miserable conditions of fibroid phthisis.

Diseases of the lungs and bronchi are manifested by their own signs, after excluding those which we have demonstrated to be interpleural. In so doing the gain is in greater accuracy in diagnosis, and in greater discrimination in the value of signs. The crepitant râle, although having its mechanism within the pleural cavity, is yet a valuable sign of pneumonia, or of phthisis, as it so often accompanies these diseases; but it is not pathognomonic. It may exist in the absence of both, and either may be present without crepitant râles. Centric disease, without cavities and without interpleural adhesions, is without râles or rhonchi. Yet there is an area of dulness and of absence of true respiratory murmur, exactly agreeing with the locality of the disease, which, with the rational signs of temperature, pulse, and sputa, render its detection sufficiently clear to avoid mistakes in treatment. Depending upon crepitant râles as pathognomonic has many times delayed prompt treatment, and has resulted perhaps in the loss of the patient. Convincing demonstrations alone changed my views as to their intrapulmonary mechanism. In pneumonia the exudation of plastic matter into the connective tissue of the true respiratory system is an early phenomenon. I formerly believed that the stiffened air-sacs, yielding reluctantly to the expansive force of inspiration, must separate the newly-exuded fibrine in the cellular tissue, thus giving rise to multitudinous râles.

Dr. Walshe once proposed the same theory, which has so many plausible facts to support it, but was obliged to modify his opinion, as I have since done mine.

He found that crepitant râles, in some cases, could be proved to be due to the presence of thin fluid in the pleural cavity (Walshe on *Diseases of the Chest*, pp. 107 and 108, 3d edition).

In Dr. Chamberlain's case of atheromatous aorta (reported in the *New York Med. Journal*, Oct., 1874) I had the privilege of making a careful exploration of the patient's chest not long after the first serious symptoms were manifested. Over the lower part of the right lung there was crepitus or fine subcrepitus, and at the autopsy blood was found in the right pleura, but both the pleura and lung were healthy. The signs of bronchitis of greatest diagnostic importance are not râles, but raised temperature, quickened pulse, with harsh and sibilant respiration, which masks true respiratory murmur (it does not supplant it as is done in pneumonia), with appropriate rational signs.

When resolution takes place, then true mucous râles are heard in the upper bronchi, distant from the ear, and at longer or shorter intervals, as it is collected or expectorated. Bronchitis may be complicated with pneumonia or pleuritis, in which case the signs will be more or less blended.



Sympathy between the bronchia and the pleura is very intimate. Severe bronchitis is apt to induce plastic exudation between the pleuræ, and plastic exudation is accompanied more or less with bronchorrhœa. Foreign bodies in the bronchia induce plastic exudation between the pleuræ, even sooner than they do pneumonitis.

Capillary bronchitis may or may not be accompanied by râles; when so, they have their origin within the pleural cavity, and when there is no exudation there are no râles. This is a disease peculiar to children, and is really pneumonitis and has the same signs. That which is generally called capillary bronchitis, on account of the sign of small moist râle, is simply an interpleural plastic exudation, to which children are also very liable.

Fine subcrepitus may or may not accompany pulmonary œdema, but only when there is exudation of some kind within the pleuræ.

The only true sign of pulmonary œdema is dulness under percussion. It is not distinguishable from pleuritic effusion, except when there are fine subcrepitant râles as well, showing that the pleural surfaces are in coaptation and covered with lymph.

The diagnostic signs of interpleural pathological processes may be briefly stated thus: Physical signs—râles or rhonchi; large gurgling, soft tearing, harsh, dry, rattling, crackling, small, fine, creaking. Percussion note: flat, parchment-like, wooden, high pitch, dull. Rational signs: quickened pulse, hurried respiration, dyspnœa, asthma, short hacking cough when the adhesions are over the summit and upper part of the lung; spasmodic and strangling when in the lower pleuræ. Bronchorrhœa, hæmoptysis, irritable stomach, dyspepsia, emaciation, loss of strength, frequent perspirations, especially when sleeping; and lastly, when advanced and extensive, all the signs peculiar to fibroid phthisis.

## FRACTURE OF THE EIGHTH DORSAL VERTEBRA.

By EDWARD T. CASWELL, M.D.,

PROVIDENCE, R. I.

THE following case possesses some interest, from the long interval of time which elapsed prior to the death of the unfortunate sufferer.

C. P. G., aged 31, resident in New York City, went into a mercantile warehouse in the lower part of the city, to see some pictures which a friend had recently purchased. These were, unfortunately, hung up in the passage-way of the third story, around an open hatch. In an unfortunate moment he stepped backward, and fell through the hatchway, from the third story to the first, striking upon his back. The accident occurred February 7, 1876. He was at once taken to the Reception Hospital in Chambers Street, and from thence he was removed, on the following day, to St. Luke's Hospital. By the kindness of Dr. Stedman, of St. Luke's Hospital, I have the following entry from the hospital record: "An examination showed fracture of the arch of the eighth dorsal vertebra. The patient was completely paralyzed below the eighth rib. He had involuntary evacuations from the bowel, and was unable to pass his water, catheterization being necessitated. He suffered almost continually from priapism." He remained at St. Luke's until March 18th, when he was taken home, and placed in the care of Dr. —, of

New York. In the middle of the following June he was removed to his father's farm, in the vicinity of this city, where I first saw him on the 3d of September. Towards the close of the year he was brought into town, and remained in my charge until his death on the 14th of September, 1877. He thus survived his injury nineteen months and ten days.

When first seen by me there was a marked depression in the region of the eighth dorsal vertebra. There was complete paralysis, both of motion and sensation, in the lower part of the body. The legs, crossing each other, were flexed upon the thighs, and the thighs upon the abdomen, and so firmly were the limbs fixed in this position that it was impossible to move them, and it was with difficulty that the urinal could be used. He was rolled from side to side by taking hold of the knees. There were large red ecres over each trochanter, and ulcerations at each point of contact of the ankylosed limbs. He had no control over the movements of the bowel or of the bladder. Urine came away at intervals and in quantity, not by dribbling, and without his knowledge. Whatever pain he suffered was referred to the lower and middle portions of the chest.

Such continued to be his condition, with slight variations, while under my care. As one ulceration would heal, another broke out. That over the right trochanter, however, never healed, and extended to the bone, portions of which were exfoliated. His appetite was variable, and he emaciated gradually and constantly. The alvine discharges were regular, although involuntary. The urine was very variable, at times quite clear, and again turbid. There was in general no difficulty in breathing, and he often said that above his stomach he was as well as ever. His mind was clear and active, as evinced by the fact that within the last six weeks of his life he took out a patent for a new method of churning, all the details of which he had worked out while lying in his helpless condition. There was one feature which became more marked in the latter months of his life, and which has been previously noticed in similar cases. There was a reflex spasmodic contraction of the muscles of the affected limbs, when any effort was made to move them. His constitution, naturally strong, at last gave way, and, after nearly twenty months of suffering, death came to his relief.

At an autopsy made on the night of his death, the only points of interest, aside from the fracture, were the extreme emaciation of the body, which was nothing but a skeleton covered with skin, the existence of an amyloid liver weighing eight pounds, and the presence of a large abscess in the anterior wall of the abdomen, low down over the bladder. The abscess had caused no pain, and its presence had not been suspected. The position of the lower limbs would have almost prevented an examination, even if my attention had been turned to it. An examination of the fractured vertebra showed fracture of the body of the eighth dorsal vertebra, and of the left lamella and transverse process. Dr. J. B. S. Jackson, of Boston, to whom the specimen was submitted, states that the intervertebral substance was torn through, except along the anterior edge, where it is more fibrous and resistant; there the upper edge was broken off, and all around the anterior half, and in close connection with the above, it was carried forward and downward.

The patient lived for a year and a half, and yet the spinal canal was so obstructed by the displacement, that a probe could scarcely be passed through.\* The

\* Boston Med. and Surg. Journal, vol. lxxxvii., No. 25, p. 716.

specimen has been placed in Dr. Jackson's collection, and in looking at it one cannot fail to be amazed at the tenacity of life which was exemplified in this case.

January 28, 1878.

## CONGENITAL DEFORMITY OF LOWER EXTREMITY.

Reported by GEORGE E. POST, M.D.,

PROFESSOR OF SURGERY IN SYRIAN PROTESTANT COLLEGE, BEIRUT, SYRIA

WARDIN, aged eight months, was brought by her mother to the clinique of the hospital, presenting the appearance delineated in the accompanying woodcut. The left lower extremity was two inches shorter



than the thigh of its fellow, and presented the appearance of a fleshy protuberance, from the lower and anterior portion of which the foot protruded with the sole directed forward, as seen in the cut. On examination, the motions of the hip and knee were recognized, though limited by the bent positions of the bones. The thigh was bent at nearly a right angle, projecting forward, thus throwing the knee relatively backward, and with it the upper part of the tibia and fibula, which have thus come to be parallel with the nates. The tibia and fibula are bent forward at a right angle, so that the sole of the foot is thrown forward; thus the bones of the extremity are folded on each other like the wing-bones of a bird. The upper part of the thigh is directed nearly horizontally forward, and the lower part nearly horizontally backward. The knee, being slightly flexed, gives the upper part of the tibia and fibula a horizontal position, projecting backward. The bend forward at their middle completes the zigzag of the organ, and presents a type of deformity difficult to explain. Neither mother nor child have any strumous appearance, and the mother is not aware of any violence occurring during her pregnancy which would explain an intra-uterine fracture with resulting deformity. The child being too young to be weaned, and the mother unable to remain at present in the hospital, no operation was undertaken. It is proposed, when the child shall have been weaned, to perform subcutaneous osteotomy, with a view of straightening the extremity and securing a limb on which an artificial member can be advantageously adjusted.

Dec. 20, 1877.

DR. SEVERIN GALEZOWSKI, formerly professor in the Polish University of Wilna, died in Paris on March 31st, at the age of 77 years. He was the uncle of Dr. Xavier Galezowski.

## Progress of Medical Science.

**STRUCTURAL CHANGES OF THE SYMPATHETIC NERVE IN DIABETES**—During the past year Dr. Poniklo, of the University of Cracow, had the opportunity of making five post-mortem examinations of patients dying of diabetes. Attention was directed to the sympathetic, and the whole tract of this nerve was excised in each case, and submitted to a careful examination. The following were the results obtained:

1. In all the cases an increased amount of connective tissue in the ganglia was found, especially in the upper and lower cervical. This change consisted partly in an hypertrophy of the connective stroma occurring in the sympathetic ganglia, and partly in the accumulation of newly-formed connective tissue between the nervous elements, a change that was beautifully seen in transverse sections of the ganglia. In some sections the amount of connective tissue was very great and only rudiments of nervous tissue could be detected. The capsules of the nerve-cells appeared to be thickened, having numerous granules adhering to them. In some parts numerous cells, partly round, partly fusiform or elongated, were deposited between the fibres of connective tissue, this cellular infiltration being most marked around the blood-vessels.

2. In one case abnormal dilatation of blood-vessels in the solar ganglion was found, the vessels being tortuous and distended with corpuscles. In some of the microscopical preparations, the dilated vessels covered nearly one-half the field. There were also irregular accumulations of red corpuscles in the outer spaces between the nervous elements, the result of small hemorrhages.

3. The most interesting change was that presented by the nervous elements themselves. The nerve-cells, the capsules of which were thickened as above described, appeared to be of smaller size than normal; their protoplasm was more homogeneous, especially in those parts of the ganglion where the cellular infiltration predominated. In one case, that of a young subject, there was an increased amount of dark yellow or brown granular pigment in the nerve-cells. Turning now to the nerve-fibres, it may be mentioned that, in the normal ganglia of the sympathetic, in addition to the bundles of gray non-medullated fibres, there occur a fairly large number of *white medullated* fibres, arranged partly in separate bundles enclosed within a distinct sheath of areolar tissue, and partly intermixed in the bundles of the non-medullated fibres. No bundles of medullated fibres were found in the sections of ganglia from these cases of diabetes; but here and there isolated and extremely atrophied white fibres could be distinguished in the midst of the gray, which were well preserved in the preparations. These last-named fasciculi were even much atrophied, the bundles being small, and the individual fibres wasted, and in parts almost concealed by cellular infiltration. The changes in the connective stroma of the ganglia above described sufficiently account for the atrophy of the nerve-fibres and cells, an effect very frequently observed in the other parts of the nervous system—*e. g.*, the brain and spinal cord—where there is hypertrophy of the connective tissue. It must, however, be reserved for future investigation to ascertain whether this atrophy of the nerve-fibres does not extend higher up in a centripetal direction.

The above-mentioned changes were met with, to a more or less extent, in each of the five cases examined, and they presented an excellent illustration of extreme-



ly advanced degeneration of the cervical sympathetic ganglia. The results of this examination of the sympathetic nerve in diabetes, although based on a small number of cases, are in perfect accordance with physiological experimentation, for Cyon and Aladoff have shown that excision of the cervical ganglia is immediately followed by diabetes. So extensive a degeneration of the ganglia as that above described may be considered as equivalent to their excision.—*The Lancet*, February 23, 1878.

**GLYCERINE IN THE TREATMENT OF INTERNAL HÆMORRHOIDS.**—As an additional contribution to the therapeutic value of glycerine in the treatment of internal hæmorrhoids, comes the report of Mr. George B. Powell, who has used it in four cases with very gratifying results. In the first two cases cures were effected, and in the others great relief afforded. Its action on the rectum he considers to be of a specific nature, but is unable to explain its *modus operandi*. In the hæmorrhoids of drunkards he believes it will be found perfectly reliable and effective; and administered with citric acid and tinc. cardam. co., it forms a pleasant and agreeable mixture.—*The Practitioner*, April, 1878.

**OBJECTIONS TO THE USE OF CARBOLIC ACID IN THE TREATMENT OF PILES.**—In a paper read before the Kentucky State Medical Society, Dr. Mathews, of Louisville, urges the following objections to the use of carbolic acid in the treatment of piles:

1. It is just as painful as the ligature.
2. It is insufficient.
3. Death is to be feared: (a) From peritonitis; (b) from embolism; (c) from pyæmia. Mr. Allingham, of London, has used the acid in six cases with very unsatisfactory results, and he considers the ligature the most efficient remedy we have. Three cases are cited in which *very violent inflammation* followed the use of the acid, and this coincides with Dr. Mathews' personal experience in many cases. It can only be cured by a process of *inflammation, suppuration, and sloughing*, and this once started is immediately beyond our control. Without any prescribed rule as to the graduation of the dose, we would be liable to excite too little inflammation and thus fail to cure, or too much and endanger.

Peritonitis may be excited by extension of the inflammation, or by gangrene and perforation of the bowel. Embolism may occur from the detaching of a portion of coagulum, and, owing to the comparatively slow coagulative power of the acid, this is very liable to occur. Death from pyæmia is more likely to occur with this treatment than after the use of the ligature.—*American Medical Biweekly*, April 27, 1878.

**TREATMENT OF VOMITING IN PREGNANCY.**—Dr. M. O. Jones, of Chicago, believing that the vomiting of pregnancy is a reflex phenomenon depending on the condition of the uterus, argues that it can be best controlled by local treatment at the seat of irritation. To accomplish this he proposes to excite a superficial inflammation of the os and cervix uteri, hoping by this means to concentrate the nervous phenomena at the point of irritation, and thus save the stomach. He had the opportunity of testing this theory in five cases, in which he cauterized the cervix with the solid nitrate of silver, with surprisingly successful results. These were all extreme cases, in which the ordinary remedies had been faithfully tried, without any benefit whatever in two of them, and with but temporary improvement in the others. Four were cases of first pregnancy; in two there was slight erosion of the mucous lining around the os; the other

three were perfectly healthy. In addition to these, Dr. J. Marion Sims reports a case in his practice, in which most brilliant results were obtained by this treatment. The night after the application of the silver the patient had the first night's rest she had had for a week, and the next morning ate a liberal breakfast, something she had not done for a fortnight.—*Richmond and Louisville Medical Journal*, April, 1878.

**DIAGNOSTIC SIGNIFICATION OF THE RETARDATION OF THE CAROTID IMPULSE.**—Doctors Bozzolo and Fiori have made a series of experiments to ascertain the truth of Dr. Trippier's recent assertion that the carotid impulse is retarded only in insufficiency of the aortic valves. In these experiments they used the graphic method, placing a Buisson's tympanum over the apex of the heart, and another on the carotid; both of these made their tracings on a cylinder moved by clock-work with Foucault's regulator. The observations were made on patients having various kinds of functional diseases of the heart, on healthy youths, a young boy, on old people in a good condition of health, but presenting, in addition, a manifest degree of general arterial atheroma. The result of the fifteen observations was as follows: A retardation equal to or greater than that observed in aortic insufficiency occurred in healthy individuals and in patients with cardiac diseases of different natures. There are cases of aortic insufficiency which present much less retardation than that presented by healthy individuals. Hence, Trippier's assertion is not justified, and the retardation of the carotid impulse cannot be considered as a pathognomonic sign of insufficiency of the aortic valves.—*Lo Sperimentale*, March, 1878.

**CHANGES IN THE SYMPATHETIC NERVE FROM PSEUDO-MUSCULAR HYPERTROPHY.**—Dr. Vincenzo Brigidi communicates (*L'Imparsiade*, February, 1878) a case of pseudo-muscular hypertrophy, which is rendered particularly interesting by the discovery, for the first time in this disease, of traces of alterations in the sympathetic nerve.

The patient, a male, thirty years of age, had presented all the signs of the disease, and died of a pulmonary affection. At the autopsy, the voluntary muscles were found to present the changes described by Duchenne—fine capillary injection, hyperplasia of the connective tissue, great quantity of adipose tissue, etc. The peripheral nerves were normal; the cerebrum, pons varolii, medulla oblongata, and spinal cord presented no changes visible to the naked eye. A careful examination of the sympathetic revealed the following: The several ganglia appeared in general normal, though more than usually colored, especially the cervical.

Several of these, together with the celiac and other adjacent small ganglia, were examined under the microscope. They presented a notable dilatation of the peripheral and central veins; the larger arteries were empty and not dilated. The nerve-cells were less numerous than usual; those situated adjacent to the vessels appeared more or less atrophied and contained pigment granulations of a yellowish red, darker, and even black color. The connective tissue appeared hyperplastic, and at certain points to the extent of true sclerosis. With regard to the nerve-fibres, those containing myeline were rare and manifestly diminished in size, while the fibres of Remak were distinctly diseased, and perhaps in some places were replaced by connective tissue. The author says he makes no pretensions to having demonstrated the pathogenesis of this disease, but is inclined to concur with Duchenne in referring it to a lesion of the vasomotor nerves.—*Lo Sperimentale*, March, 1878.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE HYDROPHOBIA QUESTION.

DURING the last five years, the medical and lay journals in England and on the continent have been teeming with histories of cases of hydrophobia, and with various views concerning the pathology of this dire malady. In view of the interest which the subject has lately excited in our own community, both among our professional brethren and among the laity, we trust that our readers will not consider the following résumé of the present state of the question inopportune.

We will premise with the assumption, even though it is opposed to the views of so distinguished a pathologist and clinical observer as Mr. Bergh, that hydrophobia does really exist as a distinct affection. The practically unanimous conviction of the medical profession relieves us from the necessity of discussing this point. None but a fanatic, blinded by preconceived theories, can doubt the existence of the disease. We start, then, with the assumption that hydrophobia is an acute, infectious disease, communicated to man from a rabid animal, usually the dog or the cat.

At the very starting-point, however, of our consideration of the question, we are met with a very interesting and important problem, "Can the bite of a healthy dog produce hydrophobia in the human being?" The weight of testimony, in our opinion, decidedly negatives this assumption. Putegnat, an active advocate of this doctrine, mentions a case coming under his own observation in which a child, after having been bitten by a dog, became affected with true hydrophobia (*lyssa humana*). The offending dog, however, remained well for six months afterwards, at the end of which period it was accidentally killed. Many cases of a similar nature might be quoted from the abundant literature of the subject, but this one will suffice to show the general drift of the argument. But there is a fatal objection, to our

minds, which can be advanced against this as well as all other similar cases. According to Bollinger and Fleming, the period of incubation in the dog may extend to eight months. May not the animals in question have been in the incubation stage of the disease, at the time that their bites were attended with such fatal results? Thambayn, who wrote as far back as 1859, has collected the histories of eighteen cases, in which hydrophobia was produced in the human subject from the bites of dogs in the incubation stage of rabies.

Another question of still greater practical importance is that of the spontaneous origin of the disease in the lower animals. Is rabies generated in the dog *de novo* in consequence of exposure to extremes of heat and cold, ungratified sexual excitement, maltreatment, insufficient food, etc., or is it only produced by inoculation with the virus of another rabietic animal? On this question, again, we are assailed by adverse statements. All analogy protests against this doctrine. There is no infectious disease in the nosology which the most advanced pathologists consider capable of being generated *de novo*. Furthermore, it is entirely beyond our powers of conception that a specific disease should be produced otherwise than by inoculation with an equally specific virus. But, opposed to these theoretical considerations, are the positive statements of numerous authorities in veterinary medicine.

Fleming, one of the most distinguished living veterinary surgeons, although formerly opposed to the doctrine of the generation of the disease *de novo*, is now a strong advocate of it. Roucher, another eminent authority, adduces the following case as proof of spontaneous origin induced by solitary confinement: a pug dog, while apparently well, was kept tied up in a cellar for fifteen to twenty days; at the end of this time he became rabid and bit his mistress, who soon after developed hydrophobia. In this case it is more than probable that the animal was infected previous to his confinement. An oft-quoted case of spontaneous rabies is that of M. Leblanc. The animal, a cross-bred spaniel nearly six months old, had never left its mother, nor gone away from its home. When the mother became in rut, the young dog was roused to a state of intense venereal excitement by the odor of the menstrual discharge, and became very irritable and savage in his disposition. A few days later the animal attacked an attendant, whereupon the dog was taken to M. Leblanc, who diagnosed rabies; five days later the dog died. But M. De-croix, after an inquiry into the facts of this case, announces that M. Leblanc had not been told the correct version, and thus invalidates it as an argument for the spontaneous generation theory. It is quite certain that most of the so-called spontaneous cases would prove as unreliable as the above-mentioned ones, if a careful and painstaking examination were made into



the particulars of each. This is, of course, difficult of performance in very many instances. Even the advocates of this doctrine admit it to be of rare occurrence. Among its supporters, however, are such veterinary authorities as Bouley, Roncher, Fleming, Lindsay, and Brueckmueller. But with the adverse testimony of the best medical pathologists who have investigated the subject (Magendie, Dupuytren, Breschet, Gull, Bollinger, Virchow) we think that, until more positive and conclusive evidence is offered, we are justified in asserting that rabies does not originate in the dog other than by inoculation with the virus of a rabietic animal.

When we turn to the pathological anatomy of this disease, we find ourselves again involved in a mass of contradictions. We shall chiefly consider, in this connection, the lesions discovered in the central nervous system, since these have, almost exclusively, been the subject of investigation by pathologists. As long ago as 1850, Drs. Sidey and Bennet made a careful microscopical examination of the brain and spinal cord with entirely negative results.

Bastian made an autopsic examination in 1866, paying especial attention to the specific gravity of the brain. He found the brain congested and the pia mater adherent; the specific gravity of the gray matter of the convolutions was markedly increased above the normal; there was no change in this respect in the basal ganglia or in the medulla oblongata.

Meynert, in 1869, made two investigations with the following results: The blood-vessels of the cord were distended and their walls were undergoing amyloid degeneration in spots. There was some cell-proliferation in the adventitia, with traces of colloid masses in the perivascular sheaths. Meynert thinks these appearances were due to œdema consequent on excessive congestion.

Allbutt reported two cases, in 1872, in which the following lesions of the medulla were noted: Great vascular congestion; thickening and incipient nuclear proliferation scattered here and there in the walls of the vessels; in many places, a highly refracting material outside the vessels, probably coagulated fibrinous exudation; a slight grade of granular degeneration in the nerve-cells of the convolutions and of the medulla oblongata.

In June, 1874, Benedict found the following lesions in two cases: In the convolutions of the brain were miliary depots of small, round cells arranged in clusters around the vessels; in the neighborhood of the vessels, there were transitions from the red blood-globules to pigment granules and masses; there were, also, hyaloid masses outside of the vessels probably originating from blood-globules. Benedikt considered the lesions indicative of a hemorrhagic cerebritis.

In July, 1874, Dr. Hammond published a case in which fatty degeneration of the nerve-cells in the cer-

bral convolutions and in the nuclei of origin of the pneumogastric, hypoglossal, and spinal accessory nerves was the principal lesion. The extremely imperfect method employed for the preservation of the nervous tissue in this case, however, renders the results of the examination practically valueless.

Leyden made a post-mortem examination, in 1875, with entirely negative results.

In 1876 Freidrich Schultz made one microscopic examination, and, with the exception of vascular congestion, found the nerve structures entirely normal. This observer considers the appearances in Benedikt's cases as chiefly due to changes brought about by long-continued preservation in Mueller's fluid.

Wassilieff, likewise, found congestion of the vessels; in some places, the nerve-cells of the medulla oblongata were cloudy; there was an aggregation of cells, and hyaloid substance in the perivascular spaces.

In February, 1877, Dr. Coats investigated a case which presented the following lesions: An accumulation of round cells in the perivascular spaces, especially in the upper part of the cord, medulla oblongata, and pons varolii, and, to a minor degree, in the convolutions; there were similar accumulations of round cells in the spaces around the ganglion-cells.

Dr. Gowers submitted the results of four examinations to the London Pathological Society, in May, 1877. In one case, the only lesion discoverable was congestion of the vessels. In two of the other cases there were thrombi, probably ante-mortem, in the larger blood-vessels.

In three cases there was a collection of cells in the perivascular sheaths and miliary abscesses in and around the hypoglossal nuclei; the nerve-cells were somewhat swollen and granular, especially around the hypoglossal, pneumogastric, and glosso-pharyngeal nuclei of origin.

It is very evident from a review of the investigations we have quoted above, that there is no lesion of the nervous system peculiar to hydrophobia. In some cases nothing abnormal was found except congestion of the vessels; the remaining lesions are probably in great part due to the continuance of this congestion.

The lesions are not, at least, a specific effect of the hydrophobic virus, since similar conditions are found in other diseased processes, notably in progressive paralysis of the insane and in chorea. There is very little doubt that, until our processes of investigation are more refined and accurate than they are at present, the microscopical examination of the central nervous system will do very little towards clearing up the pathology of the affection.

In 1843 Prof. Ragsky made a chemical examination of the blood of a hydrophobic patient with the following results: The reaction was neutral; in 1,000 parts were contained 769.6 water; 133.0 hæmatoglo-

bulin; 80.2 albumen; 12.4 extractive matters and salts; and 4.8 fibrin.

It appears to us that this line of inquiry, with the improved methods now at our command, promises more fruitful results than microscopical examination of the nervous system. The chemical and microscopical examination of the saliva of the rabid animal has been hitherto sorely neglected, and in this direction, perhaps, lies the key to the whole morbid process.

The treatment of the affection may be dismissed in a very few words. According to the report of the French Minister of the Interior, there has not been a single well-authenticated case of recovery out of one hundred and fifty cases of hydrophobia which have occurred in France within the last twenty-five years. We are forced to the sad conclusion that, with the present means at our command, every case of hydrophobia is necessarily fatal. A reported cure is always open to the suspicion of an error in diagnosis. Until further research gives us a better clue to the pathology of the affection than we now possess, we can hope to effect very little in the treatment of the disease except by the grossest empiricism.

Let us turn from this humiliating topic to the more promising one of prophylaxis. In the first place, what should be done in case a man is bitten by an animal suspected of being rabid? Without doubt, the best practice is to excise the wounded part immediately with an unsparing hand. Dr. Fayrer recommends placing a piece of wood in the wound and then cutting around and beneath it. Sir William Gull and Dr. Fayrer believe that the virus remains localized, for a time, in the cicatrix and think that cutting out the cicatrix, even after the original wound has healed, may serve to avert the disease.

The final question which we shall consider is: "What measures shall we adopt to diminish the production of rabies in the dog?" Some authorities advise that all dogs should be secluded for a certain period, ranging from six to eight months, and that thus the disease would naturally die out of itself. But they forget, that even if this plan were practicable, the dogs might be again inoculated by the virus of some of the other domestic animals. The following measures have been recommended by Mr. Fleming, and appear to us to be entirely practicable:

1. All vagrant dogs should be killed.
2. Dogs should not be muzzled except in times when the disease is epidemic.
3. They should be placed under good hygienic conditions (food, drink, cleanliness, etc.).
4. The number of useless dogs should be diminished as much as possible by imposing a heavy tax upon every animal.
5. The owner of every dog which is acting in a suspicious manner should be compelled, under penalty of criminal punishment, to report the case to the police.

#### THE RELATIONS OF SYPHILIS TO PUBLIC HEALTH.

Dr. FREDERICK R. STURGIS, of this city, has published a pamphlet upon the above subject, and opens afresh a discussion in which every medical man is interested. Although he confines himself for the most part to those phases of the question which relate rather to medical practice than directly to public policy, his remarks are extremely suggestive, and the facts which he presents are very significant. The first of these refers to the common occurrence of syphilis. In regard to this point we observe with regret, that although statistics have been collected from some of the largest cities of the old and new world, the author has been baffled in his attempt to gather sufficient official and reliable data to offer a definite reply to the question. This may be gathered by his own conclusions, as follows: "Syphilis is *probably* widely spread, and *possibly* increasing in extent," but "this opinion, from the imperfect means at our disposal, must, for the present at least, remain more or less conjectural."

It is important to notice the apologetic and doubtful nature of the response, from one who has clearly devoted great energy and perseverance to arrive at the truth. Dr. Sturgis admits that he has failed in his attempt to collect the necessary statistics, and had to rely upon the records of hospitals and other medical institutions where the treatment is gratuitous, and the official returns of the army and navy; but this takes no cognizance of private cases, a considerable element in arriving at a final result. He has, however, skilfully drawn upon his own resources to remedy the difficulty. Taking New York, he finds that, for the year 1873, 250,536 persons received gratuitous medical aid. The venereal cases were 12,341, and of these 5,045 were syphilitic. Then taking the statistics for the mercantile marine, he found the percentage of venereal to total number of cases ranged from 16 to 24 per cent. Call it, he says, as an average 20. That is five times as much as he gives the percentage for New York venereal poor. In the same report he found that the percentage of syphilis to the total number of sick was over 16, that was about ten times as much as his estimate, leaving nine-tenths to be accounted for. If we adopt this view we have a total of 49,364 persons treated privately for venereal diseases in New York, of which 45,405 would be syphilitic. In other words, out of a population of 942,292 persons, 61,705 would be suffering from venereal diseases in some form, and of these 50,450 would be due to syphilis. In London an official report, which covers one week's medical relief at hospitals, dispensaries and workhouses, supports the view that during the year (1868). 7 per cent., or about one in fourteen, of the applicants were afflicted with venereal disease. Considerable interest is attached to the returns of Paris, where stringent sanitary regulations are in force to combat this form of disease, and we are surprised



to find a total of 48,980 cases—a formidable array, when it is confessed that the actual amount is really much higher. These figures confirm us in our views, previously expressed in the RECORD, that little reliance can be placed on any system of surveillance which is not more radical and thorough than has yet been devised.

The second point raised by Dr. Sturgis is, "Can syphilis be considered a disease fatal to life?" On this question of fatality Dr. Sturgis answers in the negative, so far as the acquired form goes; "but its excessive mortality in the congenital variety renders it serious and alarming."

In our opinion this question of the fatality of syphilis can barely be considered alone, as the issue involves the discussion of a secondary point, which Dr. Sturgis reserves for a distinct examination, and really forms his third problem, which is, "Does it favor the development or fatally influence the cause of other disease?"

We apprehend these two questions are inseparable, and that we must arrive at a decision on the latter before a logical and definite reply can be given to the former. It is true that the path of Dr. Sturgis to his final results is considerably shortened by his belief that "acquired syphilis is comparatively harmless in its influence over the course and development of other diseases;" and as he decisively puts it, "Syphilis can only produce syphilis." This opinion we receive with respect, but it is difficult to ignore esteemed authorities who have shown that the future of the syphilitic patient is far from assured.

Scrofula and cancer may not owe their origin to syphilis, but very many other diseases of equal importance nevertheless do. It is but the too common experience of the hospital surgeon to find his attention drawn to varied instances of the lingering virulence of the syphilitic poison, and the reports of operations for morbid growths and diseased joints or bones usually open with a reference to the previous record of the patient in regard to syphilitic taint. Thus, while we admit that the majority of patients survive the first attack of syphilis, it appears difficult to pronounce upon the issue of a disease that is oftener relieved than radically cured. The relieved syphilitic patient may leave the hospital apparently recovered and never return to its walls, but who would guarantee his future? In these remarks we have followed the plan of Dr. Sturgis, and refer to syphilis *proper* when we speak of that disease.

This subject is, of course, too wide to be followed out in detail within the present compass, and we appreciate the difficulty Dr. Sturgis must have encountered in condensing within the limits of a small pamphlet matter that might have formed material for a volume.

ALEXANDER VOLTA.—On April 28th, the statue of this celebrated physician was unveiled in the University of Pavia.

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

#### SECTION OF THEORY AND PRACTICE OF MEDICINE.

*Stated Meeting, April 16, 1878.*

DR. E. F. WARD, CHAIRMAN.

#### THE INFANTILE DIARRHŒA OF SUMMER.

DR. J. LEWIS SMITH was announced to read a paper on the above subject, but apologized for not having written one, and made the following remarks:

This summer diarrhœa, as an epidemic, he said, is confined to the cities, being scarcely at all known in the country. In New York it makes its appearance about the middle of May, or earlier, if the season is unusually warm. From that time the cases increase in number and severity until the maximum heat of the year is reached, during July and August. After the latter month it begins to decline, and it at length ceases to be an epidemic about the first of November. Its prevalence and severity is found to correspond with the degree of heat; yet hot weather is not the main cause of it. In the rural districts the temperature may be just as high as in the city, but this summer diarrhœa does not occur as an epidemic there. It is, therefore, pre-eminently a disease of cities, and we must look for some other source for it than simple high temperature. Undoubtedly one of the most important causes is to be found in the very free exhalations arising from decomposing animal and vegetable matter during the heated term; and the disease is always most frequently met with in those localities where the accumulation of filth is the greatest. Dr. Smith stated that some years ago, while making an inspection of certain portions of New York for the Citizens' Association, he had become fully satisfied in regard to this point. He remembered one block of tenement-houses particularly, in which there was little or no drainage, and the noxious exhalations were peculiarly abundant and offensive; and here there was scarcely a young child in the whole block that escaped the affection. Of course, we do not know exactly in what way these noxious exhalations, due to the effect of intense solar heat upon filthy streets and domiciles, produce the results noted.

But such atmospheric conditions are not the only source of the trouble. Another very potent cause is found in the diet given to children in our cities. Hence it is that mothers are always so anxious about their infants during their second summer, and it is well known that bottle-fed children are far more severely affected than those which are not. Indeed, it is very rare that an infant under six months, which is artificially nourished, escapes the disease in the city during July and August. The two main causes may be set down, then, as atmospheric and dietetic.

Dr. Smith then went on to speak of the pathology of the disease, making the preliminary remark that he thought he had had as good opportunities for observation in this connection as any one in this country. In looking over his notes he found that he had the records of over eighty autopsies, all made in warm weather, during the prevalence of the epidemic. There could be no doubt, he said, that it is essentially an inflammatory disease, especially after it has continued a short time. For the first few days there

may be no evidence of inflammatory action; but at the end of a week or so, lesions of this character are well marked in the intestines, and particularly the colon. Ordinarily, the surface of the stomach is quite pale, and consequently presenting no indications of gastritis. Yet, notwithstanding this fact, vomiting is a very frequent symptom of the disorder. Occasionally there is some hyperæmia of the stomach (more frequently observed in infants of about three months than any others), but, as a general rule, it is entirely absent. The duodenum also generally presents no lesions. On entering the jejunum, however, we find vascular streaks and patches, and these are still more marked in the ileum. The ileo-cæcal valve is frequently the seat of severe inflammation, and sometimes it is materially thickened. In the large intestine the evidences of inflammatory action are yet more prominent, and there is apt to be a vascular and tumefied state of the entire mucous membrane. The sigmoid flexure is usually the most profoundly affected of all, and this seems to be due, in great part, to the irritation produced by food, which remains longer in contact with it than with the other parts. At the same time we find, along the whole course of the large intestine, the solitary glands or follicles standing out prominently.

In the more protracted cases additional lesions are observed, such as ulcerations, which are more marked in the descending colon, and correspond in position with the follicles, in which the inflammatory action has thus gone on to the point of ulceration. Besides the intestinal lesions there are still others which are more properly complications. As long as the disease lasts, there is always progressive wasting of the whole body. In this some wasting of the brain is involved, and therefore, after the disease has continued for some time, we are very apt to have developed that condition of the encephalon which Marshall Hall and Gooch denominated spurious hydrocephalus. These physicians thought that it was not accompanied by any pathological changes, but late observers have shown that this is not really the case. Its occurrence is noted by the drowsiness of the child, the rolling of the head about, and the depression of the anterior fontanelle, the latter being an important point in the diagnosis between this condition and meningitis. It is characterized by passive congestion, capillary and venous, and also of the sinuses, and transudation of serum sufficient to make up for the wasting of the brain. When the cranial cavity is opened at the autopsy, one or two ounces of this serum sometimes escape. Spurious meningitis is a better name than spurious hydrocephalus for this hydrocephaloid disease in connection with enterocolitis; and it is rarely or never met with except when associated with, or resulting from, the latter affection.

Another complication not infrequently seen is congestion of the posterior portions of the lungs. Where the child's strength has become greatly reduced, the heart also grows feeble, and, in consequence, hypostatic congestion results in the lungs. As such patients usually lie on the back, the posterior part of the lungs is the most dependent, and this hyperæmia, extending for a depth of almost half an inch, is seen at the autopsy all over the posterior portion of both lungs. It is this, doubtless, which gives rise to the dry, hacking cough met with in a large number of such children. If the patient survives long enough, hypostatic pneumonia is apt to ensue, and this is frequently noticed in post-mortem examinations. In such instances it is sometimes possible to inflate the lungs, and sometimes it is not. The above are the most important anatomical characters of enterocolitis.

The symptoms of the disease are sufficiently familiar to all. In the majority of cases it begins very gradually, and the mother is exceedingly apt to attribute the looseness of the bowels to dentition. The child may have six, eight, or ten passages a day, and yet nothing whatever is done to check the diarrhœa, because it is supposed to be salutary during dentition. Dr. Smith said that even physicians formerly coincided in this opinion; but he himself believed that dentition had very little to do with the causation of summer diarrhœa. Indeed, the younger the child, the more apt is it to be attacked; so that infants are more likely to have the disease before dentition than they are after this has commenced.

Vomiting in such cases is not one of the initial symptoms, but sometimes it is, as when, for instance, the attack is directly attributable to some indigestible article of food. In such a case there is both vomiting and purging from the commencement. Ordinarily, however, there is gradually increasing diarrhœa for one or two weeks, and then vomiting also sets in. The most severe form of the disease is that known as cholera infantum, which resembles Asiatic cholera very markedly in its symptoms, but has, of course, no connection with that affection. Cholera infantum is to be regarded as simply an aggravated form of enterocolitis, because it is undoubtedly inflammatory in its nature. To look at or feel the skin of a child suffering from it, one could scarcely think that there was much fever present, and yet the thermometer in such cases almost always shows a temperature of 105, 106, or even 107 degrees. Cases of cholera infantum frequently run on into ordinary enterocolitis, when the urgent symptoms are relieved, and so, on the other hand, cases of ordinary enterocolitis are sometimes charged to cholera infantum, in consequence of some imprudence of diet or other source of aggravation.

The stools vary greatly in character, sometimes being yellowish, sometimes brown, and sometimes green; and there is one point of interest in connection with the green color frequently observed. Formerly it was supposed that this resulted from the liver being at fault, and calomel was almost always administered freely in consequence. Dr. Smith states that for years he had not given a particle of calomel in such cases, though sometimes he met in consultation physicians who thought it indicated from the vitiated condition of the bile, as they inferred simply from the green-colored stool. In order to determine this matter satisfactorily, Dr. Smith some time ago made a special examination of the liver in thirty or forty cases where death resulted from enterocolitis, and not in a single one of them could anything abnormal be detected about it, either with the microscope or otherwise. Moreover, he never observed this green discoloration at the point where the bile is poured out into the intestine (as would naturally be expected if it were due to the action of the latter); nor did it make its appearance until he got down to the ileum, several feet below that point. He concluded, therefore, that the bile had nothing to do with the green color observed. It is well known, also, that the stools may present a yellowish appearance when passed, but become green on standing, and especially if in contact with urine. The green color seems in reality to be due (as, indeed, is now generally accepted) simply to acidity. It is a fact that the kidneys are more apt to be affected in enterocolitis than the liver; and Dr. Smith thought it highly probable that the persistent vomiting in some cases was attributable to uræmia, in consequence of trouble in the kidneys.

Dr. Smith now proceeded to take up the subject of



treatment, which, he said, was one of the greatest importance to every general practitioner. He believed that there were but very few remedies from which it was necessary to select, and for his own part he scarcely ever employed more than two, viz.: opium and bismuth, before the hydrocephaloid stage was reached, and these he considered better than all others. The administration of the large doses of bismuth now employed is of but recent origin, but has been followed by the best results. In ordinary cases it should be given in doses of ten or twelve grains, and it may be advantageously combined with the compound powder of chalk with opium (which contains one grain of opium in forty), or else with ordinary Dover's powder. For general use, however, it is perhaps better to give the bismuth in suspension, and the following prescription will be found a very admirable one:

R. Tinct. opii deodoratæ ..... gtt. xvj.  
 Bismuth. subnitratæ ..... 3 ij.  
 Syrupi ..... f 3 ss.  
 Aquæ ..... f 3 iss.

M.

Dose, a teaspoonful for a child of one year.

Dr. Smith said that he had been much more successful since he had employed opium and bismuth in this way than before, when he would often try a long list of remedies in succession, and not find good results from any. Such a combination as the above is retained on the stomach, and has the effect of both an antiseptic and an astringent. No preparatory treatment is necessary, unless it is found that some irritating article of food has been taken; but most of the cases are considerably advanced when the physician is called in, and any such source of trouble has long since been gotten rid of.

Almost all cases of entero-colitis need stimulus, and brandy is the best form in which it can be given. Of course, the amount should vary according to the age, and Dr. Smith is in the habit of giving three drops for every month of the child's age (when under one year) every two or three hours.

When the hydrocephaloid stage of the disease is reached, the opium should be withdrawn or given very cautiously; but the bismuth may be continued as before. At this period, however, we must depend principally on tonics and astringents, and one of the most useful agents that can be employed is the liquor ferri nitratis. The following prescription will prove of great service:

R. Tinct. calumbæ ..... f 3 ij.  
 Liq. ferri nitratis ..... gtt. xvij.  
 Syrupi ..... f 3 ij.

M.

Dose, a teaspoonful.

At the same time the stimulus should be kept up as before.

Finally, the kind of diet used is of the utmost importance. If the child is under one year old it should at once be removed to the country, or a wet-nurse should be provided for it, as no artificial food is reliable. If both of these are impossible, the best cow's milk should be prepared in such a way as to resemble healthy human milk as much as possible. The milk should be allowed to stand for some time, and then only the upper third of it employed. In this way the larger part of the sugar and butter will be obtained, while the indigestible casein (which settles to the bottom) will be avoided. As regards farinaceous preparations for children under six months old, Dr. Smith prefers Mellin's Liebig's food, which also has

the endorsement of such authorities as Enstace Smith and Tanner. Its taste is quite sweet from the dextrine and glucose which it contains, while it is almost entirely free from starch. When added to cow's milk, it makes as good a substitute for mother's milk as has as yet been obtained. After the age of six months infants can digest a certain amount of starchy food, and then Robinson's prepared barley may be used with advantage, if it is sufficiently boiled. As a rule, however, Dr. Smith prefers Ridge's food, which is highly recommended by Steiner, of Germany. Dr. Smith formerly used to employ Nestle's food, but has been obliged to give it up, when the bowels are affected, on account of its laxative effect. In cases of habitual constipation in young infants, which is often a very perplexing condition to the practitioner, he has found it of very great service.

Dr. A. A. SMITH considered it of great importance to control the high temperature which is so frequently met with in the early stage of entero-colitis, and said that he had observed quite wonderful results from the application of cold. When the temperature rose to 103 degrees or more, he was in the habit of employing sponging or the wet-pack; but he did not approve of cold baths, because he thought they entailed too much muscular exertion on the part of the child. This application of cold, he thought, allayed nervous excitement and tended to produce sleep.

Although the disease might not be decidedly inflammatory in its early stage, yet the influences affecting children in the city during hot weather were such as to beget a high temperature. He considered external applications more beneficial than internal medication, but did not hesitate to employ both. For the last three or four years he had employed the bromides with great satisfaction, and did not know until quite recently that Dr. Salvatore Caro had read a paper, some six or eight years ago, in which he advocated their use in this affection. Later on (say after four or five weeks), when the child was suffering more from the results of the affection than the disease proper, he had found the external application of animal oils very beneficial. Of these, cod-liver oil was probably the best, and he did not employ the vegetable oils at all. Internally he had been in the habit of using salicin, which seemed to act not only as an antiseptic and tonic, but also to have a favorable effect in allaying nervous excitement. He usually gave it in simple syrup and cinnamon-water, and it always seemed to be tolerated by the stomach and well digested. The dose for a young infant was about half a grain; for a child of one year a grain and a half; and after that he increased the dose one grain for every year of the child's age.

Dr. P. BRYNBERG PORTER spoke of the great importance of early treatment in the summer diarrhœas of children, and the great risk which mothers incurred in allowing them to run on without medical attendance. This, he thought, was well shown in the special service which had been instituted by the Board of Health in this city during the past two summers. It might possibly be only a coincidence, but it was certainly a noteworthy fact, that in both years the death-rate steadily diminished while this service was kept up. During the summer of 1877 it was especially significant that the weather was actually much warmer during this period of house-to-house inspection than it was either before or after it, and also that the death-rate immediately began to increase again about the middle of August, when the service was discontinued on account of the lack of the necessary funds for its maintenance. This happy result, he

thought, was due mainly to the fact that so many cases of entero-colitis were seen in the incipient stage and put promptly upon appropriate medicinal and dietetic treatment; and, judging from this experience, he was of the opinion that there would be a great saving of human life in this city if the service could be maintained uninterruptedly for at least the entire months of July and August.

In regard to the use of the bromides and salicin in this affection, he had employed the former, at the suggestion of Dr. Caro, some time ago, and the latter more recently, at that of Dr. A. A. Smith, but had to confess that he had been somewhat disappointed in regard to their action. It is true that in a certain proportion of cases they did seem to have a beneficial effect, but he thought that, as a rule, he could obtain the desired results more promptly and surely by other remedies. It seemed to him that no one agent fulfilled so many of the indications met with in this disease as opium, and that it could be relied upon more confidently than any other, with the exception, perhaps, of bismuth.

Dr. E. H. M. SELL said that he had treated a number of cases successfully with bromide of potassium combined with ergot, and others still with the tincture of cinchona alone. There was a certain class of cases which were due entirely to over-nursing, and these required nothing but the regulation of the time when the child should be put to the breast. Others, again, are characterized by sprue, the mucous membrane of the entire alimentary tract from the mouth to the anus being affected, and these could be set down always as due to improper food, either in addition to the mother's milk or as a substitute for it. Even when the mother said that the child always got "one cow's milk," it would usually be found that the "one cow" was stall-fed and slop-fed; and this was quite sufficient to account for the condition observed. In such cases the hyposulphite of soda acted almost as a specific for the sprue, if the diet was properly regulated.

In regard to the use of opiates, he said he never employed them under the age of one year, and very sparingly after that, for fear of the danger of narcotic poisoning, as he had twice rescued young infants from death on account of the opium which had been prescribed for them by other physicians. On the other hand, he believed that gelseminum could be employed with much greater safety, and he had found that it had the effect of lowering the temperature, diminishing the rapidity of the pulse, controlling nervous excitability, and, in fact, fulfilling every indication for which opium was employed. He was in the habit of ordering from two to eight drops of the concentrated tincture of gelseminum to be placed in a teaspoonful of water, and of this the child was to have a teaspoonful every half hour or every hour, according to the urgency of the symptoms.

Dr. J. H. COMFORT spoke of the good results which he had obtained from pepsin. He also spoke highly of the use of bismuth, which he said he usually employed in combination with it, though he had not been in the habit of giving such large doses as Dr. Smith had recommended this evening.

Dr. J. LEWIS SMITH, in conclusion, said that he thought nothing could really take the place of opium. Every medicine, he said, could be given in overdoses. He considered it just as safe, if given with proper caution, under the age of one year as at any other period of life, and had never seen any bad results from its use. He had frequently given doses of half a drop of laudanum to a child of six months for a long

period without observing any difficulty. In regard to the action of bismuth, it was the impression of a great many that it had merely a local effect, but he thought that it had something more than this. One medical friend told him that he had frequently noticed a peculiar odor, resembling that of garlic, in the breath of patients who were taking bismuth, but personally he had never observed it. It was well known that the stools usually became black when bismuth was being taken, and the black discoloration he had also seen in the stomach at post-mortem examinations. He believed it to be due to the action of sulphurous acid in the stomach and intestines, as the sulphide of bismuth is of this black color. In addition to its other good qualities, he considered bismuth an excellent disinfectant, and said that all observers agreed that the stools at once became much less offensive under its administration.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 12 to May 18, 1878.*

CAMPBELL, JNO., Lieut.-Colonel and Surgeon. Announced as Medical Director of the Department. G. O. 4, Dept. of the South, May 15, 1878.

TOWN, F. L., Major and Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to New York City and report arrival, by letter, to Surgeon-General. S. O. 101, A. G. O., May 10, 1878.

FRANTZ, J. H., Major and Surgeon. Relieved from duty in Dept. of the East, and authorized to remain at his home on usual monthly certificate of disability until his health is sufficiently restored to resume duty. S. O. 101, C. S., A. G. O.

STORROW, S. A., Major and Surgeon. Assigned to duty as Chief Medical Officer of the command of Lieut.-Colonel L. P. Bradley, 9th Infy. S. O. 41, Dept. of the Platte, May 10, 1878.

TILTON, H. R., Major and Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and report arrival, by letter, to Surgeon-General. S. O. 101, C. S., A. G. O.

WILLIAMS, J. W., Major and Surgeon. Relieved from temporary duty with troops at Washington Arsenal. D. C., and ordered to Dept. of the Missouri. S. O. 101, C. S., A. G. O.

BROWN, H. E., Capt. and Asst. Surgeon. Relieved from duty in the Dept. of the East, and ordered to Dept. of Texas. S. O. 101, C. S., A. G. O.

MIDDLETON, P., Capt. and Asst. Surgeon. Granted leave of absence for four months. S. O. 104, A. G. O., May 14, 1878.

O'REILLY, R. M., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and ordered to Dept. of the South. S. O. 101, C. S., A. G. O.

HEIZMANN, C. L., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and ordered to Dept. of the Columbia. S. O. 101, C. S., A. G. O.

CAMPBELL, A. B., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to New York City, and report arrival, by letter, to Surgeon-General. S. O. 101, C. S., A. G. O.

CORSON, J. K., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and ordered to Dept. of Arizona. S. O. 101, C. S., A. G. O.



WILSON, W. J., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, ordered before the Army Medical Board, New York City, for examination for promotion, and after examination report by letter to the Surgeon-General. S. O. 101, C. S., A. G. O.

HALL, J. D., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and ordered to Dept. of Texas. S. O. 101, C. S., A. G. O.

MUSELEY, E. B., 1st Lieut. and Asst. Surgeon. To report in person to Lieut.-Col. L. P. Bradley, 9th Infy. S. O. 41, C. S., Dept. of the Platte.

SKINNER, J. O., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the South, and ordered to Dept. of Arizona. S. O. 101, C. S., A. G. O.

BARNETT, R., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Gulf, and ordered to Dept. of the Platte. S. O. 101, C. S., A. G. O.

CRAMPTON, L. W., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Gulf, and ordered to Dept. of Dakota. S. O. 101, C. S., A. G. O.

TAYLOR, M. E., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Gulf, and ordered to Dept. of the Missouri. S. O. 101, C. S., A. G. O.

SHUFELDT, R. W., 1st Lieut. and Asst. Surgeon. To accompany Co. D, 4th Infy., from Omaha Barracks to Ft. Laramie, Wyo., and on arrival report to the com'd'g officer for duty at that post. S. O. 41, C. S., Dept. of the Platte.

WRIGHT, J. J. B., Colonel (retired). Died at Carlisle, Pa, on May 14, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 18, 1878.

| Week Ending      | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| May 11, 1878.... | 0             | 5              | 70             | 0                          | 58       | 45          | 1          |
| May 18, 1878.... | 1             | 7              | 62             | 3                          | 63       | 37          | 1          |

ON OXALATE OF CERIUM IN CHRONIC COUGH.—“I have for some time used the oxalate of cerium in cases of chronic cough with shortness of breathing, with very marked success. One case under observation is a proof of its good effects as a sedative. A lady has suffered for some years with cough and difficulty of breathing, on the least exertion ‘the outcome of an acute attack of pneumonia,’ the cough being most troublesome in the morning on getting up—so bad as to cause sickness. I prescribed 5 gr. half an hour before rising. The physical signs observed in her case have been loud bronchial breathing, with great abdominal action, impaired resonance over lungs, with a slight dulness at the apex of left lung. The most marked physical changes since taking the ox. cerium are less noise in breathing, less abdominal action, no cough in the morning, and increased strength. I could relate other cases, but will only mention one other, it being under my care in our village hospital: a case of

consolidation of the right lung. The rest given to the lung by the ox. cerium in gr. 5 doses is observable in the comfort in breathing, and the cessation of cough for twenty-four hours after each dose. The medicinal properties of ox. cerium I believe to be purely sedative, a great desideratum in the treatment of lung diseases, the difficulty being to find a drug that will not upset the digestive organs. In all cases wherein I have used the ox. cerium the only symptom observable from its use is a slight dryness of mouth.”—By Thomas Clark, L.R.C.P. and S.E., in *Practitioner*.

METRIC SYSTEM IN THE MARINE HOSPITAL SERVICE.—The metric system has been adopted by the Marine Hospital Service. The *Louisville Medical News* alludes thus pleasantly to the fact: “Since the publication in the *News* of the article upon the metric system the Government has ordered its adoption by the Marine Hospital Service.” We congratulate our friend Cowling on his success, which is probably due to the fact that his journal is regularly read in Cabinet meetings.

THE EASIEST WAY TO DROWN.—For those who may desire to test it we quote the following from Dr. Tracy (*Pop. Sci. Monthly*): “If death by drowning be inevitable, as in a shipwreck, the easiest way to die would be to suck water into the lungs by a powerful inspiration, as soon as one went beneath the surface. A person who had the courage to do this would probably become almost immediately unconscious, and never rise to the surface. As soon as the fluid fills his lungs, all feelings of chilliness and pain would cease, the indescribable semi-delirium that accompanies anesthesia would come on, with ringing in the ears and delightful visions of color and light, while he would seem to himself to be gently sinking to rest on the softest of beds, and with the most delightful of dreams.”

TREATMENT OF BOILS.—As the result of physiological experiments, Dr. Planat (*Lyon Medical*) has been led to the use of arnica in all cases of superficial acute inflammation, as furuncles, anginas, erysipelas, etc. He states that arnica aborts all furuncular eruptions, except those accompanied by diabetes, with remarkable promptness. For external use he employs: *Recipe*.—Extract of fresh arnica flowers, 10 parts; honey, 20 parts. If this is too liquid, he adds lycopodium. The mixture is applied to the inflamed part, and covered with oil-silk. Equally good results will be obtained in the same way by the internal administration of tincture of arnica in doses of twenty-five to thirty drops every two hours. M. Planat adds that the extinction of the furuncular eruption is so rapid that it seems impossible to deny a specific elective action.—*Med. Press and Circular*.

THE MEDICAL SOCIETY OF VICTORIA (Australia) have by a committee made a report on the prevalence of phthisis in Victoria. A comparison is made between the rate of mortality from this disease in England and Victoria. In England the rate for 10,000 persons was 25.66 in five years (from 1860 to 1864), and 22.83 in five years (1870 to 1874); while in Victoria it was only 13.08 and 12.60 for the same periods. It recognizes the fact that most cases of phthisis represent really the final stage of some acute inflammatory affection, generally pneumonia. It admits that climate has much to do with the origin of the complaint, as dampness of the air and soil contributes to all inflammatory affections of the lungs; but it alleges too much stress is usually laid on the density of population as determining the amount of phthisis in any district, which is shown very clearly by statistics.

It is claimed that the general death-rate over the

whole colony (Melbourne excepted) has been reduced about one-third in the ten years between 1861 and 1871, the exception being due to insanitary conditions operating against that city.

**A MODEL BOARDING-SCHOOL PRINCIPAL.**—The Baroness Marie S—, a young lady of sixteen, was until recently a pupil at the female seminary of Mme. Durivage, a fashionable establishment in Berlin. Strange as it may seem, beautiful young baronesses are, apparently, no more proof against the evil designs of unprincipled individuals of the opposite sex, than some of their sisters of less distinguished rank, and, notwithstanding the extreme seclusion in which the inmates of such an institution are supposed to be kept, this wayward miss managed in some way or other to get the opportunity of forming a *liaison* with a certain gay Lothario about town by the name of Von Derffling. As a result of this keeping company with a young man, the unfortunate girl found to her consternation that she was likely to become a mother; and when the fact of her *grossesse* could no longer be concealed from those about her, what should the high-principled matron of this select institute dedicated to the cultivation of the arts of the chaste Pallas Athene do but herself take her to an establishment known as "The American Lying-in Asylum," in order to have an abortion produced on her, at the expense of her gallant admirer.

This last-named institution, it would seem from the account given of it by the prosecuting attorney, on the occasion of the trial last month of the originators and proprietors of it, was a most extraordinary and infamous place. It appears that in April, 1875, four Americans, under assumed and high-sounding names, rented a small house on Louise Street in Berlin, and applied to the medical authorities for permission to open what they called an "American lying-in asylum." All of them professed to be experienced obstetricians, and they exhibited diplomas from various American medical colleges, apparently made out in proper form. These diplomas the superintendent of the city medical department examined with gross carelessness, and he did not hesitate to grant the application of the so-called physicians.

At first they did but a very small business, but in the course of a few months, by a system of extensive advertising, and by employing the most crafty agents, and by resorting to the most disreputable contrivances, they succeeded in acquiring quite a large clientele. When a patient applied for admission at the "asylum," in order that she might await her natural confinement, she was told that the house was full just then, and a box of pills was furnished her, which, if she should commence taking at once, would render parturition perfectly painless. These pills contained noxious substances, compounded for the express purpose of producing pain and nausea, and when the unfortunate woman had been made ill by them, she would naturally return to the institution to find out what was the matter with her. She would then be coolly informed that on the payment of a fee of twenty-five dollars an examination of her case would be made. In her anxiety about her condition the patient generally consented to this, and then, after a mock-explanation the "physician," to her astonishment and consternation, announced that she was afflicted with an ovarian tumor. For the removal of this the sum of one hundred dollars was demanded, and the poor creature was so terrified by this information that it was usually forthcoming. When the money had been paid, a most revolting scene was enacted. While two

of the four worthies held the miserable victim upon the table, a third would perform an abortion in the most brutal and bungling manner. No anæsthetic was employed, it would seem, and, in order to drown the poor creature's shrieks of agony, the fourth "learned professor" evoked the shrillest strains from a bugle kept on hand for the purpose. Such a thing would seem incredible had it not been solemnly sworn to in a court of justice.

Most of the women who came to the institute, however, did so for the express purpose of having abortion produced, and up to the time that the "asylum" was closed by the interference of the law, more than three hundred such operations were performed. It is said to be a fact that the patients were almost invariably ladies belonging to the higher classes of society, and that among them were many school-girls, like the Baroness Marie S—, whom their confiding parents had sent to aristocratic seminaries in Berlin.

The manner in which the doings of this vile establishment were at last exposed was as follows: It seems that a young gentleman of the same proclivities as Herr Von Derffling, and also an intimate friend of that elegant captivator of the fair sex, had sent two girls whom he had seduced to the "asylum" to be operated upon, and that the father of one of them, a nobleman of quite high rank, accidentally discovered what his daughter had done. He then disowned her, and at once gave information against the "American doctors" to the police. One of them was absent from the city, but the other three, together with a number of accomplices, the three young ladies, Von Derffling and his friend, and Mme. Durivage, the high-toned principal of the aristocratic seminary, were all arrested. When the premises were searched a large number of papers and the instruments used by the quacks in the perpetration of their crimes were found. In the garden back of the house there was a sort of furnace, which, according to the confession of one of their assistants, was used for the burning of the fetuses, and hidden under a large dunghill were the charred remains of quite a number of them.

It is gratifying to know that these infamous miscreants, with the exception of the one who was absent from the city at the time of the arrest, and has not yet been captured, received the punishment which they so richly deserved. One of the "professors" was sentenced to death, and the other two to penal servitude for life; the agents and midwives in their employ to terms of solitary confinement varying from ten to fifteen years, and Von Derffling and his friend each to five years' solitary confinement; while Mme. Durivage was condemned to the same punishment for a term of eight years. It is stated that when the madame received her sentence she gave a loud shriek, foamed at the mouth, tore her hair, and acted like a lunatic generally. It is to be hoped that her eight years of incarceration will have a salutary effect, and teach her a lesson which she will not be likely to forget in case she ever resumes her former calling, and also that if there are any other principals of female seminaries in Berlin or elsewhere of the same exalted morality, they will not neglect to take warning by the melancholy example thus afforded them.

**TREATMENT OF CHRONIC ULCERS OF THE VULVA AND CERVIX UTERI.**—Dr. Guillaumet, of Paris, recommends very highly the employment of sulphuret of carbon in the treatment of these and other chronic ulcers. The disagreeable smell of the liquid can be overcome to a great extent by the addition of the essence of bitter almonds, or of mint, in the proportion



of ten or fifteen drops to ten grammes (3 ijs.) of the sulphuret of carbon. Iodine, which is very soluble in the sulphuret, diminishes its odor considerably, and at the same time increases its reparative and stimulating properties. Dr. Guillaumet employs the following combinations: Sulphuret of carbon, 12 grammes (3 iij.), and iodine 1 gramme (gr. 15); or sulphuret of carbon 16 grammes (5 iv.), tincture of iodine 1 gramme (m. 15), and essence of mint four drops. The bottle containing the fluid should be held close to the sore to be dressed, and far from the light. A wick of charpie should be dipped lightly into the liquid, and the surface of the sore lightly brushed with it. The sore should then be covered with a powder of subnitrate of bismuth and a layer of dry charpie. Care must be taken not to apply too much of the liquid. In treating ulcers of the neck and womb the *modus faciendi* is the same, except that more powder should be used, which should be kept in place by a tampon of cotton-wool. The tampon should be left *in situ* for about twelve hours.

Scrofulous ulcerations of the vulva, chancres, syphilitic erosions about the anus and genitals, and mucous patches have been cured in a few days by this treatment. The sulphuret of carbon acts as an irritant, a refrigerant, and an anæsthetic. Its action is entirely local, and limited to the diseased tissues. In spite of the irritation it causes, the granulations rarely become so exuberant as to require repression. The frequency of the dressings should depend on the age and the condition of the sore, but they should never be repeated oftener than once a day.

CONGRÈS INTERNATIONAL D'HYGIÈNE.—An International Congress of Hygiene, to which all medical men are invited, will meet in Paris during the first fortnight of the month of August.

TREATMENT OF PUERPERAL METRORRHAGIA. In cases of post-partum hemorrhage, Dr. Donovan has employed successfully the tincture of cannabis indica in doses of 18 minims. The action of the drug is rapid and certain, even when ergot has failed. The tincture of cannabis indica is also efficacious against the other forms of metrorrhagia, and especially against a too abundant menstrual flux.

TREATMENT OF ATONY OF THE BLADDER.—Prof. Langenbeck has recently employed hypodermic injections of ergotine with remarkable results, in three cases of atony of the bladder due to enlarged prostate. The treatment was followed by a rapid increase in the contractility of the bladder, which enabled the patient to evacuate larger quantities of water at a time. One of the cases was that of a man sixty-two years of age, who urinated three or four times a day, but only passed about 7½ ounces of urine at each micturition, while over a pint could be evacuated by the catheter. On the first day of the treatment, a solution containing 12 cgr. (gr. ij.) of the ergotine of Bonjean was injected under the skin. On the same day the patient could pass his water more freely, and a few days later it was found that the hypertrophy of the prostate had greatly diminished. After four injections the atony of the bladder was completely overcome. An ointment of the iodide of potassium was used in the rectum at the same time, and Vichy water was taken internally, but Prof. Langenbeck thinks that he is justified in ascribing the cure mainly, if not solely, to the injections of ergotine.

PILLS FOR AMENORRHEA.—In cases of idiopathic amenorrhœa without much reaction in the economy, when there is reason to believe that the suppression of

the menses is due, either to an insufficient fluxion to the genital organs, or to a failure of evacuation in consequence of inertia of the uterus, M. Courty recommends the following:

R. Pulv. rutæ,  
Pulv. sabineæ,  
Pulv. ergotæ..... āā gr. i.  
Pulv. aloes. .... gr. ½.

M.

Three of these pills are administered on the first day, six on the second, and nine on the third.

LARGE AGAINST SMALL DOSES.—The *Dublin Medical Press*, in an elaborate leader upon the "Fiction of Small Doses," says: "In all those cases in which the therapeutic efficacy of certain drugs cannot be questioned by any one, however sceptical he may be, or to whatever medical persuasion he may belong, the largeness of the dose seems to be an important factor in its therapeutic action on the system, and the influence it has upon the disease for which it is prescribed. Hence the unquestionable efficacy of large doses of iodide of potassium in secondary syphilis; of large doses of quinine in arresting the progress of intermittent fever; of comparatively large doses of mercury, in some form or other, in the treatment of syphilitic iritis, and certain syphilitic affections of the skin; of large doses of bromide of potassium in some cases of epilepsy; of comparatively large and long-continued doses of arsenic in certain skin diseases; and of large doses of the hydrated peroxide of iron in the treatment of certain neuralgias. It is the same with other and less potent remedies. Large and frequently repeated doses of the liquor ammoniæ acetatis, or a full dose of Dover's powder, will act upon the skin and excite diaphoresis, when a grain or two of the one, or a few drops of the other, would have no effect whatever. Give a small dose of morphia to a patient in the agonies of a severe attack of colic, or in a paroxysm of mania, and you might as well try to soothe him with the mesmeric pass. Administer a mild aperient to a man suffering from constipation and biliary obstruction, and ten to one you will rather aggravate than remove his complaint."

MEASLES has been very prevalent in some parts of Ireland.

WOODEN STREET PAVEMENT FOR HOSPITALS.—An effort is being made in Dublin to obtain wooden instead of stone pavement in streets upon which hospitals are situated.

HYDROPHOBIA FROM A CAT.—A case of death from hydrophobia, the result of bite of a cat, is reported as having occurred in Manchester, Eng.

MEDICAL NIGHT-SERVICE.—A system of medical night-service has been established in Algiers, on the same basis as the one which was already in operation in Paris. An additional feature, however, is that the physician, who is called during the night, is obliged to fill out a blank, stating the age, sex, and profession of the patient, and the affection from which he or she appeared to be suffering. These bulletins will be collected every three months, and they will furnish a means of determining the utility of the night-service system.

WOOD-OIL.—A wood-oil obtained from the roots of trees, and especially resinous trees, such as the pine and the fir, is used in Sweden for illuminating purposes. The roots left in the ground after the levelling of forests are utilized in the production of this oil. These roots are distilled dry, that is to say, they are

superheated in large, hermetically-sealed retorts, when they give off a certain quantity of oil, turpentine, creosote, tar, acetic acid, vegetable charcoal, resinous oils, etc. On account of the large quantity of carbon which it contains, the oil burns with a great deal of smoke, and hence specially constructed lamps are required for its consumption. In its natural state, without admixture, the wood oil is the cheapest illuminating substance known; it costs about two rs. (ten cents) a quart. It cannot explode, and it burns longer (about thirty-five per cent.) than photogene.

**DEATH OF A MEDICAL STUDENT FROM SMALL-POX.**—Mr. Arthur Ogier, a medical student in Marseilles, France, died recently of small-pox, which he contracted during his attendance at the hospital. Several of the French journals take advantage of the stir caused by the death of this young man, to urge the compulsory re-vaccination of all medical students as soon as they begin to attend the hospitals. A similar rule would, perhaps, not be amiss in this country, although, in this city at least, in consequence of the isolation of variola patients, the students are but little exposed to danger.

**THE MUTUAL AUTOPSY SOCIETY.**—Louis Asseline, one of the members of this society, died recently, and the autopsy was performed by Prof. Broca. It was found that death, which had been sudden, had resulted from rupture of the left auricle of the heart. The rupture was due to fatty degeneration of the organ; the muscular fibres had almost disappeared, and it was a matter of surprise that life had been prolonged so long under such conditions. The brain weighed 1,460 grammes. It was noticed that the fronto-parietal sutures were not ossified, although M. Asseline was forty-nine years of age, and the theory was mooted that this delay in the closure of the anterior sutures might have been due to the cerebral activity.

**CHLOROFORM NARCOSIS CURED BY NITRITE OF AMYL.**—An English journal reports a case of threatened death from chloroform, in which the patient was resuscitated by the inhalation of a few drops of nitrite of amyl. The indication for the use of amyl is furnished by the sudden failure of the pulse.

Another means of treating a threatening narcosis caused by chloroform is recommended by M. Baillée, of Belgium. It consists in the introduction of a small piece of ice into the rectum. A moderate degree of pressure suffices to overcome the resistance of the sphincter. The ice melts in the intestine, and immediately excites a deep inspiration, which is followed by the re-establishment of natural respiration and of the cardiac functions.

This treatment might also prove serviceable to excite respiration in the new-born child.

**RAPID EXPULSION OF TAPEWORMS.**—The following case, which is reported by Dr. Paulini, presents some points of interest: A female prisoner, who was under treatment for an ulcer in the prison hospital, passed a long piece of tapeworm on the 24th of February. At eight o'clock on the succeeding morning the half of the following powder was administered in water: R. Flor. kousoo, 3 vj. kamela 3 jv. M. At nine o'clock the patient was given a dose of Carlsbad salts, and an hour later the other half of the powder was administered. There was no vomiting. About half-past twelve the patient went to stool, and a coil of tapeworms was found in the passage. On examining this coil, Dr. Paulini found four heads of the *tænia solium* attached to pieces of the worms, from half a yard to a yard in length, and two pieces without heads. The

combined length of the pieces passed was forty one yards.

**CASE OF HYDROPHOBIA CURED BY OXYGEN.**—This case is reported by Drs. Schmidt and Zebeden, from Russia. The first symptoms of rabies appeared seventeen days after the injury. The patient was made to inhale three cubic feet of oxygen, and two hours afterwards he was in a state of perfect calm. Two days afterwards the symptoms of rabies reappeared, and another inhalation of oxygen was administered with the same success. This time the inhalation was continued for forty-five minutes. A slight dyspnea which persisted after the disappearance of the graver symptoms, was treated for three weeks by the monobromide of camphor.—*Lyon Médical*, April 28th.

**MEANS OF PREVENTING PITTING IN VARIOLA.**—This consists simply in puncturing the vesicles with a needle as soon as they have attained a moderate development, and in frequent washing with lukewarm water. The punctures must be repeated often enough to keep the little wounds open, or as often as the vesicles show signs of refilling. The work is one which requires time and patience, but this is of small moment, as the task can be entrusted safely to a mother or nurse. A Dr. Bernard states that he has employed this method with gratifying success in a severe epidemic of variola.

**THE TELEGRAPHIC DISEASE.**—Onimus (*Courrier Médical*) calls attention to this disease, somewhat analogous to, but much more severe than, writers' cramp. Morse's instrument is blamed for causing the greatest number of cases, probably because of the extremely close attention required in using it to avoid errors. The symptoms are chiefly palpitation, over-excitement, vertigo, insomnia, sometimes weakening of the sight, and a sensation of constriction at the nape of the neck. The over-excitement is succeeded by depression, sadness, and entire loss of tone. The patient loses memory, and insanity even may follow. The symptoms are more readily produced in women than in men.

RHODE ISLAND has organized a State Board of Health. Strange to say, Dr. Snow is not a member. This is certainly not a very strong argument in favor of the good intentions of the framers of the law.

**CONDUCT OF THE SURGEON IN CASES OF MUTILATION OF THE HAND.**—Prof. Verneuil (*Courrier Médical*) says, when you have to treat a patient suffering from a hand crushed in any way whatever, take as an absolute rule to cut away nothing, to regulate nothing with the bistoury. He gives the reasons for this, first, that parts which it would appear necessary to cut away at first regain their shape and usefulness; and secondly, that operations performed two or three months after, when the parts are in a state of absolute calm, give much better results.

**CHLORATE OF POTASH IN CATARRH OF THE BLADDER.**—Prof. G. Edlefsen, of Kiel, publishes in the *Deutsch. Archiv klin. Med.*, xix., 1, 1877, an essay on the treatment of catarrh of the bladder by chlorate of potash. The view lately advanced that the best method of treating cystitis, even acute cases of it, consists in the introduction into the bladder, through the urethra, of water or medicated fluids, is not in accordance with his observation. The remedy he recommends is chlorate of potash internally, which never damages the stomach or any other organ, and substitutes turpentine perfectly in cases where turpentine cannot be given.



## Original Lectures.

## LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

By E. C. SEGUIN, M.D.,

CLINICAL PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

## LECTURE III.

1. SYSTEMATIC DISEASES OF THE SPINAL CORD, CONTINUED; LESIONS IN THE KINESODIC SYSTEM. 2. NON-SYSTEMATIC OR FOCAL LESIONS OF THE SPINAL CORD; LESIONS AT DIFFERENT HEIGHTS IN THE ORGAN.

GENTLEMEN:—There remain for consideration a few of the systematic lesions of the spinal cord.

4. Myelitis of the anterior horns, or poliomyelitis anterior. Like all affections of the kinesodic tract, this affection is characterized by the predominance of motor symptoms and the absence of sensory ones. But we also meet with great trophic changes—muscular atrophy—in this disease.

The lesion consists, as we know from the autopsies by Gombault, by Cornil and Lépine, and by Déjérine, in an inflammation of the anterior gray horns of the spinal cord, leading to atrophy, and even destruction of the motor (and trophic?) ganglion-cells. The change in the cells is acute pigmentary degeneration.

In those regions of anterior gray matter corresponding to the paralyzed parts, hardly any motor ganglion-cells remain. Other lesions are degenerative changes in the motor nerves, as far as their termination, and muscular atrophy, usually without fatty metamorphosis.

The symptoms of the affection vary in the three varieties: acute, sub-acute, and chronic.

*a.* In acute febrile poliomyelitis anterior we observe a sharp, remittent or continued fever, lasting one or several days, accompanied in many cases by pains in the limbs, and sometimes by slight numbness. This is followed, suddenly, as a rule, by extensive paralysis, the fever ceasing. The paralysis may affect all the limbs, or two of them, or one only; it tends to diminish spontaneously to a marked extent. No anæsthesia is present, and but little numbness. Reflex movements are reduced or abolished, the bladder and rectum act normally, and there is no tendency to bed-sore. But other, even more characteristic symptoms, soon follow. In a few days the nerve-trunks in the severely palsied limbs lose their galvanic and faradic excitability, and the muscles, while ceasing to respond to the faradic current, contract slowly, and with abnormal formula, to the galvanic current—we have the degeneration-reaction. A little later, after two or three weeks, the palsied muscles undergo rapid atrophy, an atrophy which is progressive if no recovery is to take place. Ultimately only one muscular group may remain paralyzed and atrophied.

*b.* There is a non-febrile acute myelitis anterior. The patient, usually a child, is put to bed well, and awakes in the morning with one or more paralyzed limbs, with the subsequent symptoms as above.

In these two forms are to be ranged nearly all cases of infantile spinal paralysis so-called, and many cases of the same disease occurring in the adult.

*c, d.* Febrile and non-febrile subacute myelitis of the anterior horns differ from the above only in degree of acuteness and in rapidity of development, and need no detailed description.

*e.* Chronic myelitis of the anterior horns is often mistaken for progressive muscular atrophy; yet a diagnosis, is, I think, frequently possible. Often in this variety of poliomyelitis there occur severe neuralgic pains in the limbs which are to undergo palsy and wasting. These phenomena, when they appear, weeks or months after the first symptoms, attack whole muscular groups at once, and we do not observe the fibrillary or fascicular wasting of progressive muscular atrophy. The reactions are like those found in the acute and subacute form. No anæsthesia appears. This rare form has been observed in children and in adults.

It is only very recently that we have had a correct knowledge, clinical and pathological, of myelitis anterior. Prior to 1865, infantile spinal paralysis, though well known clinically (Heine, 1840), was thought to be due to congestion of the spinal cord, etc.; but in that year Prévost, working with Charcot, discovered the lesions in the anterior horns, and since numerous autopsies have yielded the same results. As regards the disease in the adult, it was correctly observed and classified as far back as 1847 (Duchenne), and in subsequent years by Charcot and others. Its pathological anatomy was not discovered until 1873 (Gombault) and 1875 (Cornil and Lépine). Although we need more light upon the intimate nature of the pathological changes occurring in this disease, I believe it to be now quite firmly established in nosology. Its diagnosis should be readily made by all practitioners.

5. Degeneration of the ganglion-cells of the anterior horns. As indicated by the name, the lesion in this affection is degenerative rather than inflammatory. This is true in the sense that changes in the neuroglia are wanting as a rule, and that the molecular death of the ganglion-cells takes place very slowly. This is in marked contrast to the suddenness and extent of the lesion in No. 4. Ganglion-cells are found in every stage of transition from simple increase of normal granular contents to mere roundish masses of granules—granular bodies; in some parts of the anterior horns not even vestiges of cells remain.

The symptoms of this lesion are fibrillary contractions followed by atrophy. Sensory symptoms are wholly wanting as a rule, and in a few cases the wasting limbs are the seat of some neuralgic pains. There is at no time a true paralytic condition, since the loss of power is precisely in proportion to the destruction of muscular tissue.

The mode of occurrence of the atrophy deserves a remark. Whole muscles or muscular groups do not waste away rapidly as in No. 4, but the muscular tissue undergoes change, bundle by bundle, very slowly. It thus happens that we see one or two large fasciculi in a muscle quite atrophied, while the adjacent fasciculi of the same muscle are normal, or only show fibrillary contraction. Several months may elapse before a muscle be wholly atrophied. Another feature of the atrophy is that it attacks by preference certain muscular groups, as those of the hand, chest, thighs, etc. It also affects simultaneously, or nearly so, parts which are symmetrical and homologous. If we examine the wasting muscles with the faradic current, we obtain yet another diagnostic sign: in this affection reaction to the faradic current is lost only in the absolutely atrophied muscles or parts of muscles. This loss of reaction is in direct proportion to the atrophy, whereas, in myelitis of the anterior horns

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whole muscles and muscular groups lose their faradic reaction *en masse*, and this, too, often before any marked degree of wasting has appeared. By the latter test, by the distribution of paralysis and atrophy, and by the predominance of neuralgic pains in chronic myelitis of the anterior horns, we may nearly always distinguish it from progressive muscular atrophy. Of course, the two diseases are congeners, and their pathological relationship may even be closer than we now suspect.

Cruveilhier, Aran, Duchenne, and Roberts admirably described the clinical aspects of this disease, and its naked-eye pathological anatomy. But it is to the very recent labors of Lockhart Clarke (1861-2), and of Charcot and his pupils, that we owe the exact determination of the lesion in the anterior horns of the spinal cord. It is also only within the last ten years that we have clearly distinguished pure muscular atrophy from the various forms of symptomatic atrophy.

6. Central myelitis. An inflammation of the central parts of the spinal gray matter, involving the æsthetic and kinesodic tracts, extending in some cases throughout the whole length of the organ. The proliferative changes and exudations result either in the formation of a central plug, or the development of a cavity, which is filled with clear fluid. The anterior horns and the various columns of the spinal cord are more or less involved through extension of inflammatory action, or by compression. As might be inferred from the above, the symptomatology of the affection is obscure and complex. Early in the disease, disorders of sensibility—as numbness, formication, and pain, followed by anesthesia—are prominent. Irregularly distributed paralysis, with or without atrophy, is also present. The diagnosis in this early stage, which may last years, is next to impossible. When the disease is fully formed, we have quite a distinct symptom-group. The arms alone are sometimes paralyzed, atrophied, and anæsthetic, while the legs are the seat of abnormal reflex, even to the degree of tetanoid walk. In other cases we see a general paralysis and universal anesthesia, with contracture of some muscular groups, paralysis of the bladder, and the appearance of bed-sores. If the cervical enlargement be the seat of diffused central myelitis, pupillary symptoms are seldom wanting, and the pulse is accelerated. The disease is eminently a chronic one, years being required for its full development.

Historical considerations.—Ollivier (1836) observed and described central myelitis with formation of cavities, but not much was learned of the disease and its semeiology until Schüppel published his paper (*Ueber Hydromyelus*) in 1865. Hallopeau, in 1871-2, contributed a series of elaborate articles upon the subject to the *Archives Générales de Médecine*, and in the last few years Westphal and Leyden have paid considerable attention to this rather rare form of disease.

## 2.—NON-SYSTEMATIC OR FOCAL LESIONS OF THE SPINAL CORD; LESIONS AT DIFFERENT HEIGHTS IN THE ORGAN.

A variety of lesions may involve the whole or a large part of the spinal cord at a given level, extending transversely through its various columns. These are focal lesions, and chief among them we find: injuries of all kinds; compression by bone or by a tumor; transverse sclerosis; transverse softening; hemorrhage in cord; tumor in the cord, etc.

The nature of the lesion is sometimes such (fracture of vertebra) as to indicate at once the seat of injury to the spinal cord; but in many cases the peculiarity in the symptoms is not due to the nature of the

lesion, but to its location high up or low down. The diagnosis of this location is possible only by the aid of anatomical and physiological knowledge.

The following diagram, made from data furnished by Malgaigne, may assist in estimating the height of a lesion. It indicates the point of origin of the important nerves and plexuses, and the seat of so-called centres relatively to the spinous processes of the vertebrae.

In general terms, we may say, that these focal lesions give rise to paralysis, numbness and anesthesia, to modifications of the reflex function, usually an increase; that they cause paresis or paralysis of the bladder and the sphincter ani, and that they set up a great liability to bed-sores. This general sketch varies greatly from that of the symptoms of any of the sys-

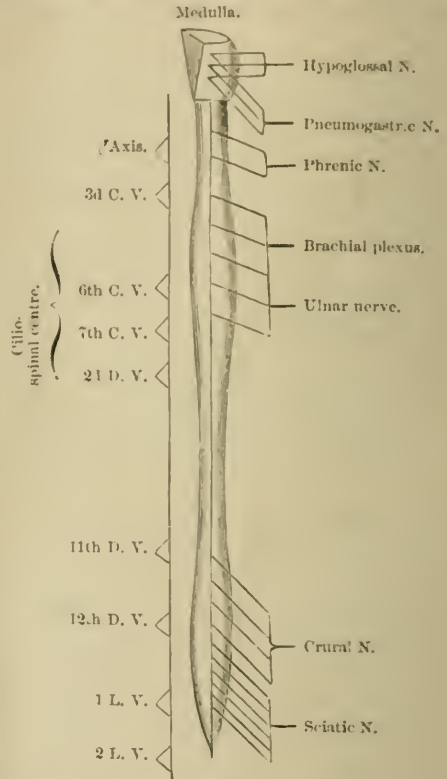


FIG. 4.

Relation of spinous processes of vertebrae to spinal nerves. After Malgaigne, *Traité d'Anatomie Chirurgicale*, vol. ii., pp. 32-3.

tematic spinal lesions, except No. 6, central myelitis. This great dissimilarity is a necessary result of the difference in the location of lesions; focal lesions involving kinesodic, æsthesodic, and trophic parts of the cord, and cutting off the inhibitory action of the encephalon (Setschenow), upon the spinal cord.

I shall attempt to make clear to you the diagnosis of lesions placed (1) in the lower lumbar enlargement; (2) just above the lumbar enlargement; (3) in the mid-dorsal region; (4) in the cervical enlargement, and (5) in the upper cervical region.

1. Focal, transverse lesions in the lower part of the lumbar enlargement. The motor symptoms produced by such a lesion are paralysis of the muscles innervated by the sciatic nerve—those of the feet, legs, posterior aspect of the thigh and the nates. The sphincter ani will be weak or paralyzed; the bladder unaffected. The reflex movements of the paralyzed



muscles are reduced in force, or absolutely wanting; wanting if the whole of the gray matter in the lower end of the cord is diseased in such a way as to destroy its functions. Dependent also upon this extent of lesion downward, is the state of muscular irritability. If the condition be as just described, the paralyzed muscles undergo atrophy, and lose their faradic contractility. The sensory symptoms are various; at the beginning of the disease (often before paresis) there is numbness in the soles of the feet, without anæsthesia. Later the numbness may appear in the whole foot, the calf, the posterior aspect of the thigh, and actual anæsthesia may supervene. If the soles of the feet lose their sensibility, the patient is no longer able to maintain his equilibrium when his eyes are closed. Another sensory symptom of importance is the cincture or band feeling, which, whether like a cord or like a belt round about the palsied parts, indicates (in accordance with the distribution of sensory nerves) the upper limit of the spinal lesion. Thus, in the condition we now study, the cincture feeling will not be about the waist or groin, but around the ankle, leg, or thigh. The above symptoms make up an incomplete paraplegia.

2. Focal, transverse lesions, situated just above the lumbar enlargement. Conduction to and from the brain is interfered with, but the gray matter of the lumbar enlargement retains its functional activity in great measure; hence we have a very different semeiology from that described above. In addition to weakness in the feet, there is developed a more or less complete paralysis of the whole of the lower extremities, from the pubis down. The rectum and bladder are paralyzed, the latter showing defective action by slow, interrupted micturition, or by retention, while constipation expresses the rectal paresis. The reflex movements of the paralyzed limbs are usually exaggerated, sometimes enormously so. This increase in reflex movements gives rise to the combined tonic and clonic movements of the paralyzed limbs, which Brown-Séquard years ago designated spinal epilepsy. This often seems spontaneous, when the patient is in bed for example, but it is certain that peripheral irritations, whether from the contact of the bed-clothing or from fæces in the rectum, urine in the bladder, etc., always precede and cause it. The preservation and increase of reflex is owing to the continued (increased) activity of the lumbar gray matter below the lesion, and the cessation of cerebral inhibitory action. Dependent upon the former fact also, we observe that the paralyzed muscles do not undergo positive atrophy, and that their electrical reactions are normal or exaggerated. Erections occur, and coition may be accomplished in these cases and in those to be described in the next paragraph.

As regards sensory symptoms we have, as in No. 1, numbness and anæsthesia in the paralyzed parts, extending as high upward as the groins or waist. The cincture feeling is nearly always present, and is placed by the patients round about the body at the level of the hips, or waist just below the umbilicus. In some cases the cincture is incomplete, and the feeling is likened to a firm grip in the patient's side or hip. The above description is a picture of common, complete paraplegia.

3. Focal, transverse lesions in the middle or upper dorsal region. The motor and sensory symptoms produced by a lesion so placed are very similar to those just described, with the following additions. The abnormal reflex movements are often more marked than in No. 2, and the cincture feeling, index of the upper limit of the lesion, is placed at or above the

umbilicus, around the lower ribs, or even just under the arms. In this condition the rectum and bladder may after a while partly regain their functions; *i. e.*, their contents are involuntarily expelled from time to time by reflex action.

If the urine dribbles away it is not because the "sphincter" (?) of the bladder is paralyzed, but because there is retention and overflow—a state demanding the daily use of absolutely perfect and carbolized soft catheters. In the earlier stages of the affection, the occurrence of increased reflex action in the paretic limbs gives rise to a tetanoid state during attempts at standing or walking, and too hasty, quasi-involuntarily micturition and defecation. Later in the disease the paralyzed limbs may become contracted, by reason of secondary changes in the lateral columns.

4. Focal, transverse lesions in the cervical enlargement. According as the lesion suddenly or gradually affects the whole of the cord transversely, or according as it is placed on the lower or upper portions of the enlargement, somewhat different symptoms are obtained. They always, however, bear a general resemblance to those in Nos. 2 and 3.

*a.* A partial lesion may for a time produce symptoms, numbness and paresis, in the arms and hands alone, the lower limbs being only weak and showing increased reflex. Later, as the lesion extends, the legs as well as the arms are paralyzed, and the cincture feeling exists high up.

*b.* A lesion involving the cord at the level of the eighth cervical and first dorsal nerves (see sketch) will give rise to paralysis, often with atrophy and loss of faradic reaction in those muscles of the upper extremities which are animated by the ulnar nerves, *i. e.*, nearly all the small muscles of the hands, and some of the flexors of the wrist and fingers. There will be sensory symptoms in the same district; and the cincture feeling, if present, will be across the upper part of the chest. The lower extremities are paretic or wholly paralyzed, numb or anæsthetic, according to the completeness of the destruction of the spinal tissue. In severe cases nearly all the intercostal muscles will also be paralyzed, and thus life will be much more jeopardized than by lesions placed lower down. The danger is all the greater because the expiratory muscles (intercostals, triangularis sterni, abdominal muscles) are paralyzed also.

*c.* If the lesion be situated in the upper part of the enlargement, the motor and sensory symptoms will be apparent in nearly the whole of the upper extremities, as well as below them. The reflex capacity, the state of bladder and rectum, the faradic reactions of muscles remain substantially as in Nos. 2 and 3. The cincture feeling is referred to the level of the clavicles, or a little lower, across the chest and the arms below the deltoid. The difficulty of breathing is even greater than in *b.* The symptom-groups produced by lesion No. 4 are often designated by the names of cervical paraplegia, or general paralysis.

In case of lesion in any part of this region (from the level of the fourth dorsal to that of the fourth cervical nerves) there may be pupillary and facial vaso-motor symptoms. If the lesion be of such a nature as to cause irritation of the cilio-spinal centre, the symptoms are dilatation of the pupils and pallor of the face, while if there be a loss of the activity of the cilio-spinal centre, the pupils are small and the face and ears flushed and hot. It must be added that these vaso-motor and ciliary symptoms are not by any means as frequently observed as theory and experimentation would lead us to expect.

The same may be said with reference to some pecu-

liarities in the action of the heart and variations in the bodily temperature which have been observed. In severe traumatic lesions in this region, we often find retardation of the pulse, and great elevation of the temperature of paralyzed parts.

5. Focal, transverse lesions in the upper cervical region. These, like No. 4, produce cervical paraplegia, but a much more complete one. The patient is wholly paralyzed below the head, and the entire body may be anæsthetic. Of necessity the phrenic nerves are parietic or paralyzed, according to the completeness of the injury to the cord, and life is almost immediately terminated by asphyxia. Cases of this category are nearly always of a surgical character; non-traumatic lesions of this region being exceedingly rare. There may be ciliary and facial vaso-motor symptoms here as in No. 4, and the bodily temperature and pulse-rate are variable. Life is preserved too short a time to allow of much study of these symptoms. In slowly developed lesions we may have phenomena of irritation, as hicough, dyspnoea, acceleration of the pulse, together with parietic symptoms in the arms and chest, later in the legs.

## THE SYMPTOMS AND TREATMENT OF IRREDUCIBLE HERNIAS.

### A LECTURE

*Delivered before the Medical Class of the University of Pennsylvania.*

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(Reported for THE MEDICAL RECORD.)

THE cause which renders a hernia irreducible differs in different cases. It may be (1) an adhesion between the sac and its contents, or (2) an adhesion between the omentum and intestine in the sac, or (3) the irreducibility may depend upon changes which have taken place at the neck of the sac, it being thrown into folds which become glued together, and cannot be straightened out. In omental hernias the sac becomes indurated and altered, so as not to resemble a serous membrane.

In the general treatment of irreducible hernias, you must adjust yourselves to the conditions of the case. Give general directions and apply some kind of restraining apparatus to keep more intestine from coming down. Particular attention should be paid to three points. 1. No articles of food causing flatulence should be allowed. 2. Fæces must not be permitted to accumulate. 3. The patient should not attempt to lift any heavy weights.

Of course the hernial mass tends to increase rapidly in size. 1. If it is large, use a suspensory bag, and buckle it up tight. 2. If the hernia is small, it will be best to have a concave pad made, or to take a hard rubber pad and mould it into the proper shape by warming it. The pad should always be a little larger than the tumor. In every case be careful to put some cotton between the pad and the skin. If the adhesions are very recent you may be able to break them up by gradual pressure. So much for general treatment. Let us now consider the treatment of special forms. Irreducible hernias may be divided into those which are *temporarily*, and those which are *permanently* irreducible.

### THE SYMPTOMS AND TREATMENT OF TEMPORARILY IRREDUCIBLE HERNIAS.

There are a variety of causes which may render

a hernia temporarily irreducible. The patient may have left off his truss for a time, or he may never have found any difficulty in restoring the hernia, and so never have been obliged to use a truss. Upon some occasion he finds that he is suddenly seized with a feeling of great discomfort. He tries to reduce the hernia and fails. The tumor is swollen and enlarged. There is some nausea and tympanitic distention of the bowels. He sends for the physician, who finds that the hernia has become irreducible, by reason of the entrance of air, or of fæces into the sac.

Nothing being more grave than a strangulated hernia, what is the physician to do in such a case? If the tumor be large and tender, be very careful how you manipulate it. The first thing to be done, of course, is to find out the cause. If the irreducibility is due to the distention of the sac by air, or fæces, try to dislodge the sac's contents. Place the patient on his back, elevate the shoulders, flex the thighs on the abdomen, and institute gentle compression over the region of the tumor. Make this pressure with a great deal of care and very gradually. By the end of fifteen minutes or so, you may feel a little yielding, and hear a slight gurgling sound. That is always a presage of ultimate success.

If this gentle compression is followed by no good results, stop it and try something else. If it is an inguinal hernia, place some leeches over the course of the spermatic cord; if femoral, put them above the saphenous opening, and apply a cold-water dressing. Very often a large injection of flaxseed tea and turpentine will work wonders. The belly will subside and the tumor disappear. But you cannot cure all cases quite so readily. What then shall you do? Let the patient remain quiet on his back, and give the following prescription:

R.  
Pulv. opii..... gr. j.  
Ext. belladonnæ..... gr. ss.  
Ext. aloës,  
Pulv. rhei..... ʒi. gr. ij.  
M. Et in pil. No. IV. divide.  
Signe. One pill every hour.

Keep the cold-water dressing over the parts. In the course of eight hours give an injection, and the hernia will probably disappear. Sometimes a hernia will disappear spontaneously. In cases where the stomach will retain anything, castor oil in doses of two teaspoonfuls should be given every two or three hours as a cathartic.

### THE SYMPTOMS AND TREATMENT OF STRANGULATED HERNIAS.

Strangulated hernia, as I have already remarked, is a much more serious affection. In strangulated hernia the intestine is fixed in a constricted position. The constriction may be due to changes at the neck of the sac, to venous engorgement, or to various other causes. A person who has long been in the habit of wearing a truss, leaves it off upon some occasion, and the hernia slips down and becomes congested and strangulated. A hernia which has long been held in position by a truss is very likely to slip down if the truss be left off. In instances where the hernia is of recent origin it may be forced down by a heavy strain.

The symptoms of strangulated hernia are: (1) a sense of pain in the umbilical region; (2) some slight local tenderness; (3) restlessness; (4) singular weakness; (5) more or less nausea and vomiting of (a) the last meal, (b) mucous and (c) bilious matter, (d)



intestinal contents; (6) obstinate constipation of bowels; (7) frequent pulse, dry tongue, delirium.

This brings us to the consideration of the treatment of strangulated hernia. The first thing to be done is, of course, to attempt reduction. Place the patient in the recumbent position, flex his body, raise the shoulders, and flex the thighs. Then give enough ether to relax all the muscles before attempting taxis. The old-fashioned plan of producing entire muscular relaxation was to place the patient in a hot bath and to administer large doses of laudanum. Of course, etherization is greatly to be preferred to this method.

What is meant by *taxis*, you will perhaps ask me? I will try to make the matter plain to you all. If it be a case of inguinal hernia, put your finger and thumb upon either side of the ring just where the sac comes out. Then with the other hand take hold of the sac and elongate it. The object in doing this is to straighten the folds out as much as possible. When you have straightened the sac well out, you may then begin to subject it to nicely graduated and uniform pressure throughout its whole mass. In this way you may, perchance, at length succeed in dislodging the contents. Be very careful in applying this pressure, and do not apply it for more than ten minutes. There is more danger in a prolonged and badly managed attempt at taxis than in an operation. Of course you may prolong your efforts at taxis over ten minutes, if the hernia be large and old. As soon as you hear a little gurgling sound, from that moment you may take courage. If it turns out to be largely an omental hernia, and you find that it cannot be reduced entire, you must endeavor to put it back by instalments.

In a case of femoral hernia, the manipulation is, of course, entirely different. Here it is very hard to reduce in some cases, as the hernia may turn completely over Poupart's ligament. If you are uncertain as to whether the hernia has turned over or not, put your finger on one of the bony insertions of the ligament, and by pushing it along you can feel the ligament throughout its whole length, provided, of course, that the hernia has not turned over it. If it is turned over, first pull it down, then place the patient on his back, raise his shoulder, turn his knee (right or left, as the hernia may be) up and in, and then begin the gradual compression of the mass between your fingers. After it has been sufficiently compressed, the hernia should be first pushed into the saphenous opening and then directed upwards.

#### THE OPERATION FOR STRANGULATED INGUINAL HERNIAS.

Suppose you are foiled in all your efforts at taxis. Then you must proceed at once to operate. The first step in the operation for the relief of strangulated inguinal hernia is to shave the hair carefully off that side of the pubis and scrotum. The patient must then, after being etherized, be brought to the side of the bed and his legs allowed to hang over, his feet resting on chairs placed conveniently. The hips should come just to the edge of the bed, or table. In all cases before attempting taxis, you should make a full statement of the dangers of the case to the friends of the patient, so that failing in your manipulations you may proceed at once to operate.

The incision should be made over the most prominent part of the tumor, and ought to be from two and a half to three inches long. The overlying layers should be very carefully lifted. If you cut hard you may drive your knife right into the contents of the sac. There are two ways of cutting through the skin. (1) You may take up a fold of skin between your fin-

gers and cut through its base from within outwards, or (2), as I prefer to do, you may cut from without inwards. I begin my incision at a point over the external abdominal ring. After severing the skin, I am accustomed to make a little nick in the superficial fascia and put in my director. There may very possibly be a little bleeding from the superficial pudic when cut. Separate the sides of the wound with your fingers. Lift up with the director any of the superficial fascia that may remain after the first cutting and divide it.

This brings us to muscular fibres and connective tissue. Lift up the loops of connective tissue and cut them on your director, pushing the muscular striae aside. These striae will usually turn out to be fibres of the cremaster muscle. After dividing the connective tissue you reach the sac itself, which is composed of a fold of peritoneum. It is very hard to distinguish between this sac, or peritoneal covering of the hernia, and the walls of the intestines themselves. Let me point out to you some good ways of distinguishing between them. 1. Take up the presenting surface and see if you can slide the layers over one another. This, of course, cannot be done in the case of intestine. 2. When the sac contains fluid, if a light be placed on one side of it, you can discover a translucent layer above, with intestine below. 3. There are not generally any muscular fibres upon the surface of the sac, whereas, on the surface of the intestines, there may be seen regular muscular fibres running uniformly in two directions. If there are any fibres on the surface of the sac they will be found to interlace. 4. Take the finest needle in your pocket-case, and hazard an exploratory puncture. If you get fluid, it is the sac; if air, it is intestine.

How are you to act when you get down to the sac? (1) Reduce the hernia without opening the sac, or (2), if necessary, open the sac and then reduce the hernia. If you do not find it necessary to open the sac, try to find where the stricture is by running your fingers up outside of the sac. You will generally find the stricture to be situated either at the neck of the sac, or at the internal ring. It is always best to reduce the hernia without opening the sac, and for the following reasons: You wound the peritoneum by opening the sac. Wounds of the peritoneum are necessarily serious, and the inflammation may extend to the whole peritoneal cavity. The advantage claimed for the opening of the sac is that it is often impossible to discover otherwise the exact position of the intestine.

The whole question of opening or not opening turns upon the condition of the contents of the sac. In hernias of long standing the strangulation is very rarely acute in its character. If there are no very active symptoms present, the contents are presumably in a condition to be returned. Where the hernia is more recent, and the symptoms of strangulation more severe, it is dangerous to attempt reduction without opening the sac; some structural change has no doubt been going on. Where the symptoms are not very severe, it is far better to divide the stricture and restore without opening the sac. It is only in very rare instances that you will find the intestine mortified. To divide the stricture, introduce your finger until you reach the stricture, and then, using your finger as a director, divide it at once with a Cooper's hernial bistoury.

How are you to get the point of the knife under the stricture? Slip the knife flat on its side along your finger as a guide. When it slips under the stricture turn the edge up and press the knife up by means of the finger which was used to direct it to the spot. In cutting a constriction, you should always cut in a cer-

tain way. The edge of the knife should be turned directly upwards and should cut parallel to the line of the inguinal canal, *i.e.*, in the line of Ponpart's ligament. As soon as you feel the stricture give way, put the knife flatwise again and remove it. After cutting the stricture, the parts should be returned by means of the fingers.

How are you to proceed when you find it necessary to incise the sac? Make a little nick in the neck of the sac, and, after introducing the director, cut the sac with a pair of scissors. After thus exposing the intestine, examine it carefully with your fingers. If it is of a chocolate color, it is a sign that it has become highly congested. After incising the sac, introduce your finger between the sac and its contents. Then run the knife flatwise along your finger as director, turn the blade up, cut the stricture, and withdraw the knife. Now that the stricture is cut, you must wait and see whether the bowel regains its normal color or not. If it does, you may restore it at once. Sometimes it does not. The congestion remains, and rubbing it between your fingers reminds you of the sensation produced by a piece of leather. Suppose there is just one small point of complete mortification; how are you to act? Tie a silk or animal ligature directly round the part, then cut off both ends of the ligature and return the bowel. Of course you could not treat a very large point of mortification in this way. How are you to act in the case of ommental hernia? If the vitality of the part is gone, and it is small, put a ligature round it and return the bowel. If the mortified portion is large, after ligating it, return the sound part and keep that which has mortified at the external abdominal ring.

Suppose the loop of intestine is all sound, but greatly distended with gas, how are you to restore it? Try to press out the gas by gradual compression; then replace the bowel. When a hernia is exclusively ommental, there is sometimes a good deal of difficulty experienced in restoring it. When the hernia contains both omentum and intestine, which are you to restore first? You may restore either part first, but never try to put back both at once. Find out which will go back most readily. When the intestine is so full of air that it will not go back, even after the stricture is divided, introduce your finger into the ring, dilate it, and slowly and patiently press out the air. Some surgeons are accustomed to tap the bowel in such cases with an exploring needle, but I do not advise this procedure.

All being restored, close up the wound with a few silver sutures, put a roller round the thigh, flex the limb, and administer opium in repeated small doses for four or five days, beginning with two grains during the course of the first day. On the sixth or seventh day castor oil may be given in very small doses as a gentle aperient, say a teaspoonful every six hours.

Suppose that you cannot by any means return the hernia, what are you to do then? Allow the hernial mass to remain in the wound, taking care to place over the opening of the incision a disinfecting lotion. Why do I say to leave the wound open? So that all the bloody serum and other discharges may find a free outlet, so that the sides of the bowel may become glued to the sides of the abdominal ring, and thus form an artificial anus. As the bowel mortifies, you should, of course, clip it away piecemeal.

(As regards the operation for strangulated femoral hernia, although the location of the incision is of course different, the same general directions should be followed as those which I have sketched out above in the case of strangulated inguinal hernias.)

## Original Communications.

### CASE OF OVER-DISTENTION OF BLADDER UNSUSPECTED — PERMANENT ATONY RESULTING.

By ALEX. W. STEIN, M.D.,

SURGEON TO CHARITY HOSPITAL, ETC., NEW YORK.

Mn. G., *æt.* 48, widower; wife died five and a half months ago; wine merchant. Always been a free drinker, not, however, to intoxication. Up to the age of fifteen was subject to nocturnal incontinence of urine. Family all consumptive. Had repeated and profuse pulmonary hemorrhages in early life, and has coughed more or less ever since. Is rather feeble and emaciated. Twenty-five years ago he was advised to put a cantharides plaster over the sternum, which gave him so much relief from coughing that he has *kept the issue open ever since by applications of cantharidal ointment*. Insists that, if he allowed the issue to close, he would die. His urinary apparatus has always been in a good working condition until about ten days ago, when he noticed an unusual frequency in micturition, which became more and more marked from day to day, and now (June 20, 1874, his first visit) he is obliged to pass water, or at least make the effort, every fifteen to thirty minutes. There is much strangury, a "smarting, burning pain" along under surface of penis, midway between meatus and scrotum, which lasts about a minute. The desire to urinate comes suddenly, and is urgent, and, although he responds to the call at once, he often makes the effort without passing a drop. When he does succeed, the quantity varies from a few drops to an ounce. The strangury lasts about a minute, and subsides, *whether any water passes or not*, to recur in fifteen to thirty minutes. Has no pain elsewhere. (Believes this attack to be due to stopping the use of whiskey, to which he is accustomed, because about two months and a half ago, after stopping whiskey, he had a similar though slight attack, which entirely subsided after resuming the use of the stimulant.) Had intercourse once, about two weeks ago, and again ten days ago, since which time has noticed a slight gleet discharge. Is to take tablespoonful of the following mixture every three hours: *B. Potass. citrat.*,  $\mathfrak{z}$ ij.; *ext. hyosciam.*, grs. xviii.; *aqua camph.*,  $\mathfrak{z}$ ij. M.

June 22, 1874. — No improvement since last visit. Always obliged to stand for a moment before he succeeds in passing water, and then only after considerable effort. The stream is small; comes without force. Thinks he passes less water than usual. Urine high-colored, albuminous, and contains pus. Prepuce quite edematous, and a slight discharge appears at meatus. No additional pain along urethra during flow of urine. Size and feel of prostate, per rectum, normal.

Declines to have any exploration of urethra; attends daily to business, and will not stay at home. Continues alkalies with hyosciamus.

June 27, 1874. — (Written communication.) Getting worse. Quantity of urine voided becoming less and less, while the desire to micturate is more frequent and painful. Thinks he has not passed half-pint of urine in twenty-four hours. Directed hot hip-baths morning and evening, with following suppository at night: *B. Ext. bellad.*, gr.  $\frac{1}{2}$ ; *ext. opii*, gr. 1 $\frac{1}{2}$ ; *ol. theobrom.*,  $\mathfrak{z}$ j. M.

June 30, 1874. — Called at his house (voluntary visit). Says he feels perfectly comfortable. Has the same



frequency and smarting pain in passing water; but when the pain subsides, "there is nothing the matter with him." In evidence of his good condition, he says he has been down town all day, hard at work, and has been playing billiards all the evening. In the course of conversation, however, he stated that his abdomen "seemed swollen." This prompted an examination, and the bladder was found distended to the umbilicus. Urging upon him the necessity, he consented to the introduction of a No. 8 E. flexible catheter, and was relieved of four pints three ounces of stale urine. The flow was characteristic, slow, without force, falling perpendicularly from orifice of instrument, stopping now and then, and recurring in spasmodic spurts with each voluntary contraction of diaphragm and abdominal muscles. The evacuation of the bladder was purposely prolonged, and not completed, as was shown by the escape of urine from the catheter when pressure was made over the hypogastrium. Patient cannot say that he feels any special relief now that his bladder is empty, since *he did not feel any pain or discomfort when it was full*. All that he notices is a sense of weakness over the hypogastrium.

July 1st, 11 A.M.—Has had no inclination to urinate since catheterization last evening, nine o'clock. Feels very comfortable; slept all night, which he has not done in a long time. Has tried to pass water several times, but without success. Separating lips of meatus, which were agglutinated, a little thick, creamy discharge escaped. No. 8 E. flexible catheter removed eleven ounces of urine. After which No. 14 E. bougie à boule passed into the bladder freely and without obstruction. Patient would not remain at home, and went to his business.

As the bladder had become so thoroughly distended and insensible to the presence of urine, he was directed not to wait for a natural impulse to micturate, but depend entirely upon the catheter, which he is to employ at least four times a day.

July 3, 1874.—Has no power to empty bladder. Uses catheter but twice daily, morning and evening, although he has been made to understand the importance of using it more frequently.

May 24, 1875.—No perceptible change in the power of his bladder since last report. Has never been able to empty his bladder, and although he may now and then pass a very small quantity of urine, he is obliged to have recourse to the catheter for the evacuation of his bladder. Has continued to attend daily to business. Passes catheter morning, evening, and once during the night—each time drawing from "one-half to over a pint." In response to the question, why he allows the urine to accumulate in such quantities, says *he never feels any inconvenience whatever in holding his water when sitting or moving about; but at night, when in the recumbent posture, and after a certain quantity of water has accumulated, tenesmus occurs, and he is obliged to have recourse to the catheter*.

April 30, 1878.—Patient says his bladder seems almost insensible to the presence of urine, even when it contains considerable, and he resorts to the catheter more as a matter of necessity than inclination. When the hydrostatic pressure is great, as after drinking ale or beer, he can with some effort pass a very small quantity of water in the natural way, but he has learned to depend entirely upon the catheter, which he introduces three or four times a day. The almost appalling manner in which he thrusts the instrument into his bladder shows a perfect familiarity with its use, and an entire absence of any fear of pain. Last December an abscess formed in connection with

the right epididymis, which opened, a fistula remaining (tubercular testes). Coughs and expectorates profusely. Appetite poor, but otherwise feels well enough.

In summing up the foregoing case, the following are some of the points of interest which present themselves:

1st. The question as to the length of time that elapsed from the occurrence of retention to the withdrawal of the urine is doubtful; but we may infer that retention existed, at least to a degree, on his first visit, ten days previous to passing the catheter.

2d. The remarkable immunity from pain or inconvenience, while the bladder was in a condition of over-distention, points to the fact that the accumulation must have been very gradual. The patient never suspected his real condition; and, though he realized that the quantity of urine voided was less than usual, he regarded his trouble as one of incontinence, and was firm in his conviction until the catheter demonstrated to the contrary. If hypogastrium had been examined earlier, the true nature of the case would have been revealed sooner.

3d. The quantity of urine removed, though large (four pints three ounces), was not all the bladder contained. Believing it injudicious to abstract at once all the water contained in a bladder which has been long distended, I should not have removed as much as I did, but my patient was reckless and uncontrollable, and I hoped, by magnifying the gravity of his case, to make him submit to advice and treatment. How well I succeeded, is shown by the fact that he went to his business the same day, in spite of my injunctions to the contrary.

4th. The original cause of the retention may be a question. There was no apparent hypertrophy of prostate and no obstruction to the passage of a No. 14 E. bougie or a steel sound of same size. He does not remember voluntarily holding his water, or that his bladder became at any time over-full. The first and only symptom that attracted his attention, was frequent and painful micturition. The fact that no appreciable enlargement of the prostate was discovered by rectal examination, or any difficulty experienced in the introduction of the catheter, does not preclude the possibility of the existence of such an enlargement. We occasionally see cases where considerable prostatic enlargement, as recognized by rectal examination, does not cause any material obstruction to the outflow of urine, while a comparatively small projection into the bladder and no enlargement towards rectum will constitute an effectual barrier to the complete evacuation of the bladder. But aside from prostatic enlargement, there occur other and sufficient changes in the physical condition and structure of the bladder to account for the bladder weaknesses so common in old men. The position and general physiognomy, so to speak, of the bladder is much changed in the aged; the basfond is lower, the vesical region, especially at its base, is characterized by varicose dilatation of the venous plexus there found, and by a marked accumulation of fat around the vesicular seminales, vas deferens and prostate, and fatty degeneration of its muscular walls, is not a rare occurrence. The thin, pale, and flaccid detrusor, so often associated with old age and with phthisis, or other chronic and exhausting disease in earlier life, only requires to be over-stretched once to lose its expulsive power. A single neglect to empty the bladder, when called to do so, will suffice to produce permanent atony. If the muscular fibres have undergone no change other than stretching, they will of course regain their tone more

readily than when fatty changes have involved their texture. Now, as to Mr. G.'s case, it is quite possible that he may have some slight centric projection of the prostate; indeed the gradual development of the retention would point that way; but as hypertrophy is not commonly manifested by symptoms before the fifty-seventh year, his age militates against the existence of such an hypertrophy, while his feeble health and badly nourished body make it probable that his bladder is simply in a condition of atony or fatty atrophy.

I might cite instances in which the bladder has not been emptied, except by catheter, for a much longer period; but the absolute comfort and ease with which this patient has employed the catheter, and depended wholly upon it during the past four years, is another example indicating the propriety of its *early* and *continued* use in all suspected cases of prostatic hypertrophy or vesical atony.

## POTASSIUM BROMIDE IN PUERPERAL CONVULSIONS.

By HENRY M. FIELD, M.D.,

PROFESSOR OF THERAPEUTICS, DARTMOUTH MEDICAL COLLEGE.

What is the value of potassium bromide in puerperal convulsions? How much may we hope for from its use? Its frequently acknowledged efficacy in epilepsy would prepare us to expect something from it at least; and reports of its action in the former application, scattered through the journals of the last two or three years, certainly commend it to our attention for further investigation.

One thing I believe we should assume at the start: that the remedy must be applied with a free hand and in large doses. In epilepsy we have learned to look for nothing except from liberal medication; and in puerperal eclampsia the emergency is great, and we must act with corresponding promptness and decision. I suspect the necessity of massive doses has been too often overlooked. In a paper by Dr. Hutchison in the English *Practitioner* of last September, a case is reported in which 15 gr. of bromide was ordered every hour in convulsions of violent character; while in another equally severe, a scruple was given every two hours. "In both," we are told, "the exhibition of bromide of potassium was followed by an early diminution in the severity of the convulsions, by a longer interval between them, and by steady general improvement." Both were cases of eclampsia following on parturition.

A case of my own of the past winter, in which potassium bromide, as applied to the convulsions preceding the birth, seemed to be the chief weapon of relief and safety, I have thought of sufficient interest to report.

A lady of 26, confined with her third child. Nothing in previous history of the case of interest; nothing in its previous observation had led me to anticipate the complication with which I had to contend. Was summoned from my bed early in the morning by the husband, who reported that his wife, without any previous symptom of labor, had risen from sleep for micturition, and had passed at once into violent convulsions. Unavoidable delay caused an hour to elapse from the beginning of the seizure till I was by her side, and the convulsions still continued with unabated severity. I at once resorted to inhalation of sulph. ether, and when convulsive action had ceased and the patient could be roused sufficiently from the coma following it, gave my first dose of bromide. I had ordered one ounce in powder, and this I divided into eight equal

portions, thus giving sixty grains freely diluted at once. Examination showed vertex presentation, and a relaxed state of the uterine os.

Returned in one hour to find labor progressing satisfactorily; but also symptoms of an approaching convulsion. Gave the second drachm of bromide, and remained with the patient henceforth till completion of labor, repeating the remedy at intervals. Kept her in a condition of semi-anesthesia, according to my usual method, *i. e.*, giving chloroform on a handkerchief with each pain throughout its continuance. There being no contra-indication, administered an occasional dose of fifteen to thirty drops of fluid extract of ergot. This I did to meet three indications: to antagonize the retarding influence of the chloroform on the labor, to give impetus to the parturition while the patient was in a favorable condition for it (fearing the return of the convulsions at any minute), and, third, to act as a probable adjunct to the principal remedy.

Labor was completed in seven hours after the occurrence of the first convulsion, and without return of this complication after the first dose of bromide had been taken, although I was kept in constant apprehension of it. On leaving I took what remained of the powder with me to the druggist, where, on its being weighed, it was found my patient had received 5 vss. during the brief period of my attendance upon her.

A few remarks. There was not evidence at any time that the subject was injured by the free administration of the drug. I accomplished more than I had expected. Meeting a medical friend on leaving my patient after the first dose of bromide had been given, I arranged with him to assist me with the forceps, if at any time I should need to resort to them, and should send for him. I believe my large doses kept off convulsions, and enabled the uterus to complete the labor without further complication. Several hours after confinement there appeared suddenly another convulsive seizure of diminished severity. Return to the bromide in 5 ss. doses three or four times a day, kept the patient comfortable for forty-eight hours. Again was the remedy suspended, and again was there occasion to resort to it; and this happened several times in the fortnight following parturition, until the family learned when and how to apply the medicine without recourse to the physician. Thereafter the patient made a good recovery.

## Reports of Hospitals.

### CHAMBERS STREET HOSPITAL, N. Y.

DR. W. T. BULL, ATTENDING SURGEON.

(Reported by Geo. D. Clift, M.D., House Surgeon.)

INCISED WOUND OF ABDOMEN. PENETRATING—PROTRUSION OF OMENTUM, WITH HEMORRHAGE—REDUCTION AND SUTURE—PERITONITIS AND SECONDARY HEMORRHAGE FROM DEEP EPIGASTRIC ARTERY—RECOVERY.

A LABORER, *æt.* 42, during the night of February 4th, received several stabs from a penknife in the hands of a bedfellow, with whom he was quarrelling about the possession of a fifteen-cent bed. On admission to the hospital about an hour later, he was much prostrated from loss of blood. A wound  $2\frac{1}{2}$  inches long, transverse in direction, was found 3 inches above the middle of Poupart's ligament, and a mass of omentum, as large as a man's fist, and in natural condition, protruded from it. Some of the outer fibres of the



rectus muscle were divided, and the peritoneum cut through to the extent of  $\frac{3}{4}$  inch. Omentum replaced. Compress and bandage. Opium and whiskey internally. Fifteen hours later Dr. Bull examined the wound. A portion of the omentum was lying between the peritoneum and integument, and a small artery in it bled freely. Efforts to reduce it were very painful. Ether was given, the wound of the peritoneum enlarged, a catgut ligature applied to the artery, the omentum reduced, and three silver sutures inserted, the middle one including the peritoneum. The deep epigastric artery was cut accidentally, and tied with catgut. Two drainage-tubes. Spray and Lister dressing. Ordered morph. acetat. hypodermically, at sufficient intervals to relieve pain, and fluid food. On the third day there was great swelling of whole abdomen, with tenderness, nausea. Pulse, 120, and evening temperature,  $101\frac{1}{2}^{\circ}$ . In the two previous days gr. vi. morphiae acetatis had been given subcutaneously, and respiration had averaged 20. Edges of wound were red and puffy. Upper and lower sutures removed, and wound surface found sloughy. Wound syringed with 1 to 80 sol. of acid. carbolic. Edges allowed to gape. Compress of lot, phl. et opii. over whole abdomen. Opium increased in quantity. Patient anxious, but takes food at intervals of three hours. In the following three days  $12\frac{1}{2}$  grains of acetate of morphia were given hypodermically. Respiration averaged 16, evening temperature  $100\frac{1}{2}^{\circ}$ , and pulse 106. General improvement. Sloughing of a portion of integument. Wound granulating. On the seventh day sharp bleeding from deep epigastric; arrested at once by pressure, and silk ligature subsequently applied. Large natural movement of bowels. From this on there was gradual improvement. No opium after the ninth day. Diarrhoea, with watery stools, on the ninth, tenth, eleventh, and twelfth days. On the nineteenth day wound reduced to small granulating sore. Patient out of bed on the twenty-eighth day, and discharged a week later.

DISLOCATION UPWARDS OF THE ACROMIAL END OF THE CLAVICLE SATISFACTORILY TREATED BY MEANS OF A SIMPLE METHOD OF APPLICATION OF THE ELASTIC BANDAGE.

This dislocation is justly considered very intractable. Two cases recently treated in the Out-Patient Department, in accordance with the suggestions of Dr. Bull, have given such good results that a description of the apparatus may prove interesting.

R. C., æt. 26, while at work, fell from a step-ladder 24 feet high, and struck the left shoulder against the floor. There was much pain about the shoulder, with inability to raise the arm. At the hospital next day the above form of dislocation was well marked. The end of the clavicle projected one-half inch above the acromion process, without overlapping it, and the shoulder was shortened inwards one-quarter inch. Reduction was easily effected by raising the elbow and depressing the clavicle. The arm being held in this way, a compress of two layers of paper-lint was placed over the articulation, and retained by two strips of adhesive plaster (as in Fig. 1), the edges being glued to the skin with collodion. The hand and forearm were then bandaged with a flannel roller, a loop of a bandage of elastic webbing, 5 feet long and  $1\frac{1}{2}$  in. wide (such as is used in Esmarch's bloodless method) passed under the elbow, the ends drawn snugly over the compress, and the anterior one carried around the axilla of the sound side (as in a spica of the shoulder), to join the other between the clavicles (Fig. 2). The ends were secured with strong pins, and

the loop about the elbow was fastened to the bandage in the same way. One or two circular turns around the arm and chest (dotted line, Fig. 2), and a large sling to support the forearm and hand, completed the dressing. Collodion was painted on the skin in the axilla. The patient complained of no pain on completion of the dressing. The three following nights he was obliged to take morphine, gr.  $\frac{1}{6}$ , but there was no further discomfort. The webbing stretched considerably, and had to be readjusted three times before its removal at

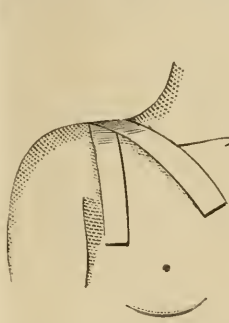


FIG. 1.

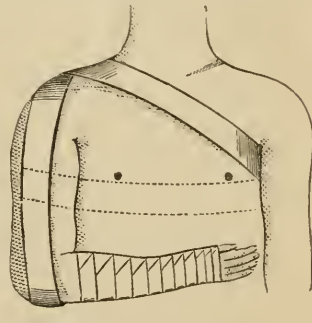


FIG. 2.

the end of three weeks. Slight excoriations were produced on either axillary fold. Collodion was painted on repeatedly, and folds of lint inserted under the bandage, and no annoyance was caused. The final result was perfectly satisfactory. There was no difference in the outline of the two shoulders, either to the eye or the touch; no stiffness of shoulder or elbow, and the lameness of the muscles from confinement disappeared in a week. The dressing was worn three weeks, and the forearm carried in a sling for a week more. One month from the injury the cure was perfect.

The second case was that of a shoemaker, 32 years old, who fell down the steps of a basement while intoxicated. The clavicle projected upwards three-quarters of an inch, but was easily reduced. Twelve hours after the injury the dressing was applied, as in the preceding. At the end of two weeks one of the "strong elastic bandages,"\* introduced by Dr. Martin in a paper before the Am. Med. Association in 1877, was substituted for the webbing, and proved in every way satisfactory. As the bandages were in use for ulcers of the leg, and were expensive, it was deemed undesirable to cut one. Hence, the length was sufficient to cover the surface traversed by the webbing twice over, and it was found convenient to begin its application on the posterior surface of the arm, at its middle, and to pass downwards under the elbow, thence over the shoulder, under the opposite axilla, and over the shoulder to the starting-point. A second turn was made in this way, and the ends of the bandage tied round the arm. A number of papules, with few pustules of acne, formed under the rubber in the neighborhood of the shoulder, but caused no great inconvenience. There were no excoriations. The rubber bandage, with sling, etc., was worn for two weeks, making four weeks in all that the patient was under treatment. The result was perfect. A week later the man resumed his occupation. It should be mentioned that in the latter case some pain was caused by pressure of the bandage on the ulna. This was remedied by shifting the loop forwards or backwards, so as not to bear on one spot more than two or three days in succession.

\* For a description of these bandages, see the Transactions of the Am. Med. Assoc. for 1877; or THE RECORD, March 9, 1878, page 189.

## Progress of Medical Science.

**DERANGEMENT OF THE GLYCOGENIC FUNCTION OF THE LIVER AS A CAUSE OF BRIGHT'S DISEASE.**—In an article bearing the above title, taken from the *American Journal of the Medical Sciences*, Dr. Gouverneur M. Smith, comes to the following conclusions:

1. Among the causes giving rise to one form of the disorder known as Bright's disease, climate is recognized as a potential one—climatic influence being chiefly operative in those sections of the earth where the vicissitudes of the weather are sharp and abrupt, as in localities of the temperate zone.

2. One of the uses of the glycogenic function of the liver is to maintain animal temperature. The function in question may be deranged in various ways. Sugar may not be formed at all or may be formed in unduly large quantities, or may be generated so sparsely as to be insufficient to subserve the wants of the economy. In a case where the sugar is suppressed, or is prepared in very moderate quantities, animal temperature is diminished, the person suffers as one exposed to harsh atmospherical conditions, and is liable to chronic congestion and organic lesions of the kidneys; and if such an individual is resident of a region in which the mean annual temperature is about 50° F., he is peculiarly prone to injuries of the renal textures.

3. Lessons in the prophylaxis of Bright's disease and the treatment of the disorder are derived from the above considerations. As means of prevention, care must be bestowed upon the nervous system, resort must be had to dietetic measures, extreme attention being paid towards promoting the healthy performance of the various functions, while the artificial temperature of the apartments and personal protection by clothing when exposed to inclement vicissitudes are important measures of defence.

**MEMBRANOUS LARYNGITIS AS A RESULT OF A DEFINITE EXPOSURE TO COLD.**—The sub-committee of the Royal Medical and Chirurgical Society on the relations of diphtheria and croup, published in *The Lancet* of Jan. 26th, a request for notes of cases in which the formation of false membranes in the air-passages followed a definite exposure to cold. Dr. Johnson, of King's College Hospital, in commenting upon this, urges the necessity of careful search for the existence of any morbid influence, other than exposure to cold, which may have co-operated in any given case, illustrating the importance of this by reference to two cases, in which the appearance of the false membrane was traceable to the escape of sewer-gas. The result of his own investigations has been the conclusion that, in the absence of direct contagion, the occurrence of membranous pharyngitis or laryngitis affords conclusive evidence of infection by sewage-poison, conveyed through either air or water.—*The Lancet*, February 16, 1878.

**TREATMENT OF TETANUS.**—Dr. Eben. Watson reports two cases of acute traumatic tetanus in the treatment of which nerve-stretching was performed in conjunction with the use of calabar bean, a drug in which he has not lost confidence. Death followed in both cases, yet in both the progress of the disease was apparently mitigated by the operation. Dr. Watson is not an advocate for any avoidable operation after the inception of an attack of tetanus, considering the ill-effects of the anæsthetic greater than in other patients, and its administration almost certain to excite a severe and perhaps fatal paroxysm. Unless, therefore,

he were convinced that nerve-stretching exercised a beneficial influence over the disease he would neither recommend nor practise it; at present, however, he can only say that it is an operation from which we may hope for some assistance in the treatment of these very desperate cases.

Mr. Boon, of the West Indies, reports five cases of tetanus with four recoveries. Of these, the first, second and eighth were traumatic; the fourth and fifth idiopathic. The first, second and fifth were acute; third, while not very severe, had at times intense spasm; fourth was chronic. His treatment is to keep the room dark and quiet, carefully excluding draughts; to give nourishment freely, in a liquid form, at frequent intervals, and always warm; stimulants in small quantities from the first; never give purgatives; chloral hydrate together with extract *canabis indica* should be given in rapidly increasing doses until the frequency and severity of the spasms are controlled.

Mr. Watson Paul relates a case of idiopathic tetanus treated with atropia and chloral hydrate, in which the patient was convalescent on the sixteenth day.

The case of Dr. Samuels, of San Francisco, was one of acute traumatic tetanus, treated by chloral hydrate and potassium bromide, and the galvanic battery. During the application of the battery and for a short time afterwards the muscles were relaxed, but soon returned to their former condition. Death on the third day.

Mr. Lawson, of Halifax, reports an acute traumatic case, of a severe type, treated by chloral hydrate; no stimulants or nourishment except milk, and very little of that from August 9th to August 23d. Recovery in five weeks.

Of late years the surgical treatment of tetanus has assumed especial importance, since experiment has shown the harmlessness of manipulating or even cutting nerve trunks. For a careful study of the operation of nerve-stretching we are indebted to Dr. Eben. Watson. There are certain objections to this procedure which at first sight seem serious, apart from the want of success which has been met with. The necessity for the use of chloroform, the size of the wound, the near relations to important vessels, and the severity of the operation in some cases, would deter many surgeons from attempting it. The process certainly deserves to merit further trial, and, at any rate, for the present, should replace amputation.—*The Lancet*, February 16, 1878.

**INSANE IN CONNECTICUT POOR-HOUSES.**—Dr. Abram Marvin Shew, Superintendent of the Connecticut Hospital for the Insane, reports that there are still about 400 lunatics in that State who are provided with no better accommodations than the town poor-houses are able to furnish, and advocates the erection of small asylums capable of accommodating 250 patients each, as probably the best method of making provision for pauper lunatics. Possibly a resolution of this question may be found by and by in the erection of small county hospitals, which need not be costly in structure or expensively furnished, and would not, on the average, be required to make provision for more than 25 to 30 patients. Dr. Shew finds that there is some immediate pecuniary advantage in having large hospitals, but that this advantage is more than counterbalanced by the decreased percentage of recoveries that results from lack of personal attention to each patient on the part of the medical staff.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE AMERICAN MEDICAL ASSOCIATION.

ON the occasion of the meeting of the American Medical Association it is usual with journalists to offer some original suggestions for improvement. In times gone by we were proud to number ourselves with the would-be reformers, and cried as loud as any for such changes in the plan of organization as would make the Association a truly representative body. Since then many important changes have been made for the better, and although there is a striking relation, as far as we are concerned, between cause and effect; we do not venture to go further than refer to the fact. However, we are scarcely glad that there are now no more flagrant abuses to attack and no more suggestions to offer for increasing the usefulness of this body. It is true, there are some propositions to be offered at the coming meeting, which may tend to simplify and systematize the work of the sections, but in a general way these will not effect the harmonious plan of government of the Association as a whole. The Association is probably to-day as near perfection, in its general working arrangement, as it can be made to be, considering the number of interests which have to be consulted and the wide range of jurisdiction which it at present enjoys. The trouble is in reality to keep it where it is. In fact, any radical change is more apt to be for the worse than the better. The profession throughout the whole country respect it for its decisions, is proud of its influence, and is in hearty sympathy with its purposes. The foundations are broadly and firmly laid, and must not be meddled with if we ever expect to build a substantial and representative superstructure. In view of this conviction we are pleased to know that no radical changes are contemplated, and that consequently the next meeting promises to be a success. The Committee of Arrangements at Buffalo have worked faithfully, and we have reason to believe successfully, to such an end,

and we have the promise of papers before the sections of even more than ordinary interest. It is, of course, expected that some of the old questions which have been presented to the Association will be discussed. Many of these may be tolerated, but there are a few which can be ignored, without harming any but those who may wish to bring them up. Of course, we expect to hear of the plaster-Paris splint, of salicylic acid in rheumatism, of climate cure for consumption, of a new treatment of diphtheria, of the real origin of bacteria, of the influence of drinking water on typhoid, because these are subjects which are comparatively new and need more ventilation; but the gentleman who attempts to prove the value of Lister's antiseptic spray, should be looked upon with becoming suspicion, while the one who invents a new speculum or a new fracture apparatus should be fined with an extra volume of the Transactions.

## OUR FILTHY STREETS.

NOW that the Legislature has adjourned without making any provision for the proper cleaning of the streets of New York, thereby leaving the city still at the mercy of the wretchedly inefficient Street-cleaning Bureau of the Police Department, it certainly seems to be a very *à propos* suggestion which one of the morning papers makes, that Recorder Hackett should ask the Grand Jury to consider the propriety of indicting the latter, in the same manner as he has done in regard to the Aldermen and the Health-board. It is perhaps too much to expect that our streets should be as well cleaned as those of any city in the world, on account of the miserable manner in which most of them are paved; but the enormous sum of money that is annually expended for the purpose, and the facilities offered by the situation and water-supply of the city, ought to ensure their being kept in at least a tolerably decent condition. There is no reason why they should not compare favorably with those of most other cities; but their filthy state is, and has been for a long time notorious. It is true that Broadway and Fifth Avenue, with the first blocks on either side of the latter (which are swept regularly every day at private expense), strike the stranger as being rather tidy thoroughfares; but let him follow these side streets a little further to the east or west, or go into some of the other avenues, and he will have his eyes opened to the real condition of the great mass of the city in this respect. Such a vile state of the streets is unwholesome enough at all times, but during the summer it becomes a matter of infinitely greater importance to the health of the community.

It is acknowledged by all authorities that one of the chief causes of the enormous mortality from diarrhoeal diseases among the children of large cities is the effect of high temperature upon refuse animal and vegetable matter, and while this is left to decay about the streets and domiciles only the most serious con-

sequences are to be apprehended. It is very well to establish a service of house to house visitation by physicians, and equip floating-hospitals, on which the children can be taken out on the water from day to day; but as long as the streets are allowed to remain in their present disgraceful condition, almost all the good which might otherwise result from these agencies is really neutralized. The cleansing of the stables of Augeas, where three thousand oxen had been confined for many years, which has furnished the text for such an infinite amount of moralizing, satire, and exhortation, ever since the remarkable feat was accomplished, was only one of the twelve labors of Alcides, and, therefore, when we consider this fact, we may perhaps be encouraged to hope that something might be done towards this not less herculean task, and before the hot weather finally sets in, if somebody in authority would only take it in hand to compel the derelict bureau to perform its duty in a moderately satisfactory manner.

#### THE SUPPRESSION OF APPLE-SHOOTING.

To the individual of a statistical turn of mind it must now be a question of considerable interest as to how many persons must be killed in this country before a stop will be put to the exciting sport of shooting apples off of peoples' heads with rifles and other like innocent little weapons in the variety shows, which are at present doing so much to elevate the taste and improve the morals of the community, in different parts of the land.

A recent issue of the *Louisville Courier Journal* gives an account of the latest of these "accidental" shootings, which occurred at Rockfort, Indiana. The show was being held in a tent, and a considerable crowd had naturally congregated around outside. When the act came in which "Harry Wallace" was to shoot the apple from his wife's head, two men were sent out to clear the people away in the direction towards which he was to fire; but there were so many persons present that the attempt was only partially successful. Two or three shots were fired, all of them coming through the canvas, and in the last one the bullet entered the brain of a lad outside, killing him instantly.

#### FEMALE RIGHTS BEFORE THE LAW.

The *Hartford Courant* states, that the Supreme Court of Pennsylvania has lately been called upon, in an indirect way, to decide the important question as to whether a woman has any legal right to wear stays, and that it gallantly says she has. The circumstances of the case were as follows:

A lady was riding in a horse-car so crowded that she was obliged to stand up, when the car stopping in a very sudden manner, she lost her balance and fell over, thereby fracturing her patella. She sued for damages, and the railway company claimed contributory negligence on her part in that she did not take

hold of the strap that is provided for standing passengers. On the other hand, she maintained that she was unable to reach or hold the strap, owing to the stays which she wore, and that with the present fashions no lady could do so, or at least not without inconvenience and possible injury. The lower court, before which the case was tried, decided that the lady, in taking hold of a fellow passenger's hand (which, it was shown, she did), had done all that was necessary and that, under the circumstances, she was not called upon to stretch up to the strap. It awarded her about \$5,000 damages, and the Supreme Court of the State, having reviewed the case, declined to interfere.

It would, therefore, seem that the fair sex are protected by the law in wearing any sort of stays they please, no matter how much they may interfere with health, comfort, and freedom of action; which, indeed, are matters of secondary consideration to the ordinary female mind, as long as fashion declares in favor of any special model.

#### THE HEALTH BOARD AND THE NUISANCES.

WE are not surprised, in view of the great outcry against the Health Board, that the latter has been indicted by the Grand Jury. There is no denying the fact that the board granted permits to many rendering establishments in the city, that it tolerated many occupations which are, generally speaking, looked upon as nuisances, but the question which must now be decided by trial is, whether these actions were justified under the circumstances. The Hunter's Point nuisance admits of no apology, and if its long existence can be proved to be due directly or indirectly to any countenance by the board, then the latter is clearly culpable. The conviction of the proprietors of one of the most notorious establishments at that place was very proper, and more will doubtless follow. It is scarcely fair to deprive the Board of the credit of bringing about this result, at least until the contrary shall have been proved. At all events, pending an investigation, we willingly suspend judgment.

#### THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL AND ABUSES OF MEDICAL CHARITY.

To such as have taken an interest in the discussion of the abuses of medical charity, connected with the Out-patient Department of the New York Hospital, it will be a matter of congratulation to learn that the obnoxious regulations, admitting all patients to the privileges of the institution, have been abolished. By such a course the governors of the hospital have shown their respect for professional opinion. Hereafter, then, "the physicians will not be expected to treat such patients as have the means to avail themselves of adequate medical advice outside," and patients from the country will be furnished with a written diagnosis of their disease only "when requested in writing by their physician."



## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, April 10, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### FIBRO-CYSTIC GOITRE.

DR. BEVERLEY ROBINSON exhibited a patient, showing the results of the treatment of a large fibro-cystic goitre with injections of iron and continuous drainage, afterwards with galvanism and ergot. The history and progress of the case was read in detail.

#### EXPECTORATED BRONCHIAL CASTS.

Dr. Robinson also exhibited fibrinous casts which were expectorated by the child in Syracuse, the history of whose case had already been presented along with similar specimens. Since the last occasion for reporting the case, the child had continued to expectorate these casts without any special inconvenience to herself, and as often sometimes as once in 24 hours. She would not unfrequently discharge the specimens in her sleep.

DR. CARPENTER stated that he had seen similar casts discharged from the same patient, some of them more perfect than the one presented. With the exception of the phenomena attending the discharge and the presumably abnormal condition of the bronchial mucous membrane, the child was in good health.

DR. PETERS referred to the monograph, upon the subject of bronchial casts, by Dr. Stephen Rogers, which was read some years ago before the Medical Society of the County of New York, in which the history of a very remarkable case was given.

DR. VAN GIESEN asked if, in Dr. Robinson's case, the larynx had been at any time invaded. The answer was in the negative.

DR. PETERS referred to a lady under his observance, who expectorated a large number of such casts every few weeks.

DR. E. C. SEGUIN suggested that some good effect might be obtained by the administration of arsenic, based upon the influence of that drug upon certain forms of colitis.

DR. VAN GIESEN asked if there was any fever during the formative stage of this deposit. There was, however, no evidence of such a condition from the history, so far as it had been ascertained.

#### BRAINLESS FŒTUS.

DR. E. C. SEGUIN presented the head of a brainless child. The fœtus from which it was removed was brought to him a week before, by Dr. Mason. The mother had no symptoms during pregnancy which would lead to the anticipation of any extraordinary result, and the child was known to be alive up to a few hours before birth. It was born dead, the breech presenting. The uterus contained a large amount of amniotic fluid. Every part of the body was perfect except the head. The latter was examined with care. There was rather a perfect face, large eyes, perfectly formed pupils, and large ears. On the top of the head, which sloped horizontally backward from the brows, was a bright, vascular membrane overlying a sac which, in its turn, overlay a thin lamella of bone. There was no trace whatever of the cerebral vesicle, its place being occupied by the sac filled with serum. The cranial nerves were well developed.

DR. PUTNAM-JACOBI referred to a similar case, in which a fœtus lived 29 hours.

#### UNUSUAL DEFORMITY OCCURRING IN A CASE OF VERY ADVANCED FUNGUS ARTHRITIS OF THE KNEE-JOINT—AMPUTATION OF THIGH—RECOVERY.

DR. BRIDGON presented a specimen of the above, with the following history: On the 20th of March of the present year, I was consulted by Dr. Matthias Abel of Quakertown, Hunterdon Co., N. J., concerning a farmer in his neighborhood who had been suffering for many years with disease of the knee-joint, and who was anxious to be relieved of his infirmity.

The Doctor furnished me with the following history: The patient came under his observation in April, 1873. He was at that time thirty years old, and had been suffering for two months with trouble in the joint, which was recognized as strumous, and he was advised an appropriate treatment, which he declined to submit to. He then fell into the hands of a "natural bone-setter" residing in Newark, under whose care he unfortunately remained for a period of two years, the treatment consisting in local frictions and active movements of the joint. He then returned to Dr. Abel, who found him emaciated, suffering from hectic and anasarous swelling of both extremities, with fistulous openings communicating with the joint. Under tonic and suitable dietetics his general condition improved, the local condition remaining stationary.

I visited the patient on the 27th of March. I found him excessively emaciated, his face, upper extremities and trunk offering a marked contrast to his swollen lower limbs. His face bore the lines of long and continued suffering, was pale and bloodless; the hue was not the white, waxy one that belongs to nephria, but decidedly that which characterizes anæmia from supuration. Both legs were infiltrated with solid œdema that scarcely pitted on pressure; the left was the larger of the two; the swelling extended nearly to the groin, and involved the serotum; the skin of the diseased limb was eczematous, the leg was flexed to more than a right angle, and the flexion was unusual. It was displaced laterally, so that when the thigh was in the normal position the sole of the foot faced the inner aspect of the opposite thigh; integuments of the knee were red and brawny, and there were three large openings through which the finger could readily be passed, and through which the carious articular surfaces could be seen and felt.

There were no visceral complications. At my request, examinations of the urine had been made, and nothing found to indicate renal trouble. His digestion was good, his pulse below one hundred, his eyes bright, and determination firm; in fact, he knew no fear, and was cheerful at the prospect of getting rid of a useless member. Notwithstanding his otherwise unpromising appearance, and taking into account the fact that the constitution which had resisted such ravages must be worth something in estimating the chances of an operation, I determined to submit him to amputation.

Able assisted by Drs. Able and Cooper, and a couple of farm-hands, I removed the limb through the junction of the middle and lower thirds. Esmarch's bandage was used, and I do not think he lost an ounce of blood.

On the fifth day after the operation the doctor informs me that his patient is doing remarkably well.

Examination of the part removed revealed the following facts: In the irregular cavity between the heads of the bones were impacted several fragments

of cancellous bone; there was not a vestige of synovial membrane or articular cartilage.

The superior surface of the head of the tibia was displaced so that it looked directly outward; the inner half of this surface was destroyed to the depth of three quarters of an inch, with deeper large cavities containing necrosed masses of cancellous tissue; the outer half represented these changes to a less extent, but was riddled with perforations leading to cavities containing detached portions of dead bone.

The surface of the inner tuberosity with the contiguous surface of the internal border formed a large articular facet made plane by osseous deposit and covered with a layer of smooth granulation tissue, which articulated with a similar surface on the posterior aspect of the internal condyle of the femur.

Both condyles of the femur much deformed; posterior surface of inner condyle lying in contact with inner tuberosity of tibia; large cavity passing upward from the intercondyloid notch-cavity in each condyle opening behind and containing sequestra. Spur of bone two inches long and half an inch wide, attached by one extremity to the tubercle on the external condyle, and by the other to the posterior aspect of the head of the fibula, probably developed in the external lateral ligament; there are also large stalactiform outgrowths from posterior surface of head of tibia, and from internal condyle of femur.

#### EPITHELIOMA OF TONGUE, PARTIAL EXTIRPATION—LIGATION OF LINGUAL ARTERIES.

DR. LEWIS A. STIMSON presented an epithelioma of the tongue, removed from a man 40 years old, who gave the following history: He contracted syphilis in 1854, the latest manifestations of which occurred in 1862 in the form of ulcers on the legs and forearms. In August, 1877, he began to suffer in the right cheek and ear from pain which he compared to a toothache; in the following November he noticed a lump well back on the right side of the tongue, and, early in December, the pain in the ear being then very severe, he entered Bellevue Hospital, where he was treated with poultices and leeches on the face, and the lump, which he was told had ulcerated, was cauterized. After remaining a fortnight at Bellevue he was transferred to Charity Hospital, where the treatment, he says, consisted of large doses of the iodide of potassium, and very painful local applications to the ulcer. His condition grew steadily worse, and on the 13th of February he left Charity, and applied soon after to Dr. Satterthwaite, who made the diagnosis of epithelioma, and sent him to me.

I found him a pale, flabby, cachectic man, with smooth, depressed, circular scars on the legs and arms, a very fetid breath, and constant dribbling from the mouth. The right side of the tongue, beginning an inch from the tip, was much swollen, its surface rising freely half an inch above the left half, and the raphe crowded far over to the left side. In the centre of this swelling was a large excavated ulcer occupying the side of the tongue and half the breadth of the dorsal surface. Its edge was irregular, everted, and granular in places, and undermined in others, its color pink, the adjoining tissue hard to the touch, but normal in color. The ulcer was about half an inch deep, and its base covered with a soft, gray putrilage. A row of small superficial ulcers extended along the border of the tongue to its tip; they were clean, with hard, raised pink edges. The tongue could not be protruded, nor could the finger be passed under its tip, but the floor of the mouth could be felt below the large ulcer, and it was not involved. The large ulcer

bled slightly when touched. No gland could be felt on the left side, but on the right side the normal depression below the angle of the jaw was obliterated and a large gland could be felt under the edge of the sterno-mastoid.

The patient spoke very indistinctly, complained of constant pain in the right ear, pain in the pharynx on swallowing, and pain on pressure over the right side of the hyoid bone.

Although the history and appearance of portions of the ulcer indicated an epitheliomatous character, it was thought best, in view of the previous syphilis, the undermined edge, and the multiplicity of the lesions, to again give the iodide of potassium and push the dose rapidly to the point of tolerance. Beginning with forty-five grains daily, it was raised to one hundred and twenty grains in about a week, and at the end of this period the swelling of the tongue had diminished, the ulcer at the tip seemed on the point of healing, the pain was less, the patient looked much better, and a few pustules of acne appeared on his forehead. Meanwhile I had cut off one of the points on the edge of the ulcer and examined it microscopically without finding any evidence of epithelioma. A few days later the dorsum of the tongue became swollen and hard just in front of the ulcer, the mucous membrane thinned gradually, and a small, round, pink ulceration appeared a quarter of an inch from the edge of the ulcer and united with it the next day by the breaking down of the intervening strip of tissue. I cut off the angle formed by the union of the two ulcers, examined it microscopically, and again failed to find evidence of epithelioma. The daily dose of the iodide was raised to one hundred and fifty grains, and fumigations of a drachm of calomel given every morning. Again he improved; the swelling diminished, the main ulcer was filling up, and its base became pink. But still, after nearly a month's treatment, it could not be said that the condition had improved, and it was evident that the pink granulations, which had nearly filled up the original excavation, were too hard and were continuous with the lump in front. So I anesthetized him and cut off a part of the hard, granulating edge at the point where I had removed a piece once before. This time, however, the tissue was very different: its edge was not undermined, it was very friable, bled but little, and the microscope showed it to be epitheliomatous. At the same time I was able to get my finger under the tip of the tongue and thus to learn that its under surface was occupied by a hard, lobular mass connecting the main ulcer with that at the tip.

The next day I tied both lingual arteries in the digastric triangle and removed the right half of the tongue with scissors through the mouth.

The points of especial interest in the case seem to me to be: 1st. That portions of the edge of the ulcer were not epitheliomatous either in appearance or histologically; and this may be explained by supposing the deeper spread of the tumor to have cut off the vascular supply of portions of the surface not yet involved by it. In due course these portions ulcerated, and the ulceration not involving epitheliomatous tissue, did not have an epitheliomatous character; or it may have been the result of the cauterization.

2. The multiplicity of the lesions. Epithelioma of the tongue, as Ricord has expressed it, is *azygos*; and this is so true that Fournier in his latest work on the subject can mention only two exceptions. In this case the duality of the lesion was probably more apparent than real, for the link of epitheliomatous tissue which was at last found on the under-surface



connecting the two ulcers probably existed at the beginning.

3. The improvement under the iodide. This I consider due solely to the stoppage of the previous irritating local treatment.

4. The change in the base of the ulcer. At first the ulcer was deeply excavated with a foul, irregular base, but afterwards the base became pink and granular, and rapidly filled up the cavity. In appearance the ulcer was healing, but in fact it was filling with epithelioma.

5. The pain in the ear, which has been so prominent a symptom from the first. Anger and Fournier say this symptom never accompanies syphilitic disease of the tongue, but is quite common in epithelioma.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting May 2, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

ARE MEDICINES, PARTICULARLY NARCOTICS, DELETERIOUS TO THE FÆTUS WHEN ADMINISTERED TO THE MOTHER DURING GESTATION AND PARTURITION?

DR. SALVATORE CARO, in answering the above question, read a very elaborate paper, in which he considered the anatomical relations between the maternal and the fetal circulation, the method by which oxygenation of the blood in the fœtus was performed, and the reasons why such drugs as salines and ethereal substances affected the fœtus, while the fœtus remained unaffected by morphia, opium, etc., when administered to the mother. He then reviewed the indications for the use of opium during gestation and parturition and its method of action upon the mother.

With reference to the maternal and the fetal circulation, Dr. Caro reached the conclusion that there was no direct communication between the blood-vessels of the mother and those of the fœtus, and that the blood of the one was always separated from the blood of the other. The proper oxygenation of the blood was obtained by the diffusion of gases through the delicate membranous septum which prevented the mingling of the blood of the fœtus with that of the mother.

Dr. Caro then made an elaborate study of the weight of the fœtus at different periods in gestation, the average quantity of blood possessed by the mother, and the quantity of morphia solution that would be present in the blood of the fœtus, admitting that its substantial alimentation came from the blood of the mother, and reached the conclusion there would be so trifling a quantity present that it would be incapable of producing any deleterious effect.

With reference to the use of opium in parturition, the chief indication was to relieve annoying pain and overcome rigidity of the os uteri. Its primary action was upon the nervous system of the mother; its direct action was expended there, and Dr. Caro was unable to understand how the nervous system of the mother could influence the nervous system of the fœtus. Special reference was made to cases reported by Drs. Gillette, Matthewson, Thomas, Mundé, Barker, of Morristown, N. J., and others. The doctor was unable to understand, if the drug administered to the mother during parturition produced deleterious effects upon the child, how it was that in one man's hands it had always been used with impunity, while in the hands of others it had always been followed by injurious effects upon the child.

An abstract of Dr. Caro's first paper upon this question, read before the Obstetric Section of the

Academy, can be found in THE MEDICAL RECORD for 1877, p. 766.

Dr. Caro's paper being before the Academy for discussion, DR. J. C. DALTON remarked that the practical bearings of the paper were very evident, and in it also there had been raised interesting physiological questions.

Did a drug, especially morphia, administered to the mother during pregnancy, also affect the fœtus? With regard to the *modus operandi* of this communication, if it did exist, full mention had already been made by the author of the paper; and although there was a delicate, transparent membrane between the blood of the mother and the blood of the child, at the same time there was a wide door open for the drug to enter the fetal circulation. The direct passage of blood from mother to fœtus was not necessary in order to permit the transmission of material from the mother to the child. When it was recollected that everything which the fœtus had, with the exception of the minute egg from which he started, was material that came from the maternal blood, it must be acknowledged that there was no *a priori* impossibility with regard to the passage of the drug from the mother to the child; certainly we were not able to say that it was impossible for morphia, administered to the mother, to enter the fetal circulation. At the same time, it was well to bear in mind that we could not say that it did pass from one circulation to the other. Although morphia was absorbed into the circulation and carried into the brain and absorbed into the substance of the brain, it was not certain that it passed out from the maternal vessels into those of the fœtus. For it had been proven that some substances passed into and out of certain sets of blood-vessels, and yet did not pass into and out of others. For example, potassium iodide passed out of the system by the saliva, while potassium ferrocyanide never passed out through the salivary vessels, yet both substances passed out through the kidneys.

Another question suggested itself: Was it necessary for the morphia to pass bodily from the maternal blood to the fetal blood in order to produce an effect upon the fœtus? Might not an effect be produced upon the fœtus in consequence of an effect produced upon the nervous system of the mother without the morphia having any direct part in the operation?

Dr. Dalton believed that we had arrived at a point where we could not deny the possibility of such an effect. There were well-authenticated cases in which simple nervous impressions produced upon the mother had produced an effect upon the fœtus. How that effect was produced had not been explained, but there was an almost universal adhesion to the opinion that purely nervous disturbances of the pregnant woman might produce an impression in the body of the fœtus. Whether it was done by continuity of nerve-filament from the mother to the fœtus, or whether it was all accomplished by the influence of the vaso-motor nerves, Dr. Dalton was unable to say. It was well known that a nervous impression upon the mother increased the heart's action, and certainly we could not be surprised that it might produce a variation in the circulation of the maternal portion of the placenta, and if that disturbance was well marked and continuous it must have an effect upon the nutrition of the fœtus. It was also well established that the modification of the nutrition of the fœtus produced by a nervous impression made upon the mother might be very local in character. Recollecting those cases, it might be well to bear in mind the question, might not a drug administered to the mother during preg-

nancy produce an effect upon the fetus indirectly, and not alone by the transportation of the drug into the fetal circulation? Dr. Dalton did not think we were in a condition to say that opium administered to the pregnant woman in poisonous doses, or as taken by the opium-eater, was injurious to the fetus. In ordinary practice morphine was given for certain reasons. Now, suppose that the pregnant woman was suffering from some condition which demanded morphine, it was doubtless advisable to give the morphine and avoid something worse, rather than withhold it through fear of injuring the fetus and expose both mother and child to more serious consequences.

Dr. ISAAC E. TAYLOR remarked that in studying the cases reported by Dr. Gillette, he had been impressed with the fact that a very small quantity of opium was used, that the effect upon the nervous system of the mother was very rapid, and that the appearance of the child was strikingly like what he had seen in children who were sacrificed by well-known causes, and not by the use of opium.

With reference to the anatomical structure of the placenta, he had supposed there was no reason, if there was absorption, why the drugs might not pass through the delicate separating membrane and enter the circulation of the child. But there was no authority save one, who had shown that the urine contained morphine.

Dr. Taylor was not prepared to reject the cases reported by Dr. Gillette, in which it was thought morphine exercised deleterious effects upon the child, but we did know of effects produced upon the fetus by nervous shock communicated to the mother, as had been suggested by Dr. Dalton.

Dr. Taylor then related a case in which a sudden impression made upon the nervous system of the mother was followed by the death of the child, and yet the placental murmur continued for some time afterwards.

Dr. Taylor further referred to a case in which the child presented in the posterior occipital position, was still-born, and presented the same appearance as in the cases reported, in which the life of the child was thought to have been sacrificed by the administration of opium to the mother. Dr. Taylor was unable to determine how true narcosis could be produced in so short a time as had been reported in some of the cases. In settling this question, the effect produced upon the child by tedious labor and by position should be taken into careful consideration.

Dr. CORSON remarked that although it should be remembered the young child was exceedingly sensitive to very minute doses of opium, it was quite probable there was not the same liability to poison a fetus. The immense value of opium in obstetric practice would prevent us from materially modifying our practice, even in the face of the facts presented by those who believed there was danger of producing deleterious effects upon the child. In his own practice he had never hesitated in urgent cases to use opiates freely to lessen the agonies of protracted labor, and he had not noticed any perceptible subsequent ill effects in the children thus born.

Dr. MUNDÉ granted, as claimed by Dr. Caro, that opium administered to the mother *by the mouth* was absorbed and entered her circulation without affecting the fetus. But Dr. Caro had overlooked one point, and that was, the effect produced upon the fetus by the hypodermic use of morphine upon the mother. In all the cases which Dr. Caro had reported the morphine had been administered by the mouth, and it

was claimed by those who argued upon the opposite side of the question, that the *rapid absorption* of the drug, such as took place after its use hypodermically, no matter in what manner it might act, whether through the circulation of the fetus or the nervous system of the mother, affected the fetus more rapidly, consequently more deleteriously. The practical question, therefore, was, could we continue the hypodermic use of morphine, as had been done, without exposing the fetus to the injurious influence of the drug? Dr. MUNDÉ was of the opinion that we could, but his belief did not change the importance of the question, and he thought it was one upon which Dr. Caro had not been sufficiently explicit.

Dr. SELL referred to gelsemium as a substitute for opium in the treatment of rigid os uteri. He recommended it in the form of concentrated tincture, and in doses of from five to eight drops.

Dr. CARO, in closing the discussion, stated that the questions raised by Drs. Dalton, Taylor and MUNDÉ had been considered and already embodied in his paper, but that the length of the paper had prevented him from directing especial attention to them. With reference to the use of morphine hypodermically and by the mouth, he always employed the latter method, when possible, because he believed that the effect produced by the drug could be better regulated than when used hypodermically.

The evidence which he had obtained from his professional brethren regarding the influence of morphine upon the fetus, when administered to the mother during parturition, had come from all parts of the country. All the reports had been with reference to its *hypodermic use*, and no deleterious effect had been realized.

The Academy then adjourned.

## New Instruments.

### A NEW INSTRUMENT

AND

A NEW METHOD OF TREATING HEMORRHOIDS.

By J. Q. ADAMS, M.D.,

CARMEL, N. Y.

QUITE recently I noticed a description of a new method of treating hemorrhoids, which was a reprint of an article by Prof. Edward Andrews, originally published in the *Chicago Medical Journal and Examiner*. It was by injecting carbolic acid and olive oil or glycerine into the hemorrhoidal tumor by means of the hypodermic syringe. It was claimed that the acid would coagulate the blood, set up inflammation, and occlude the vessel.

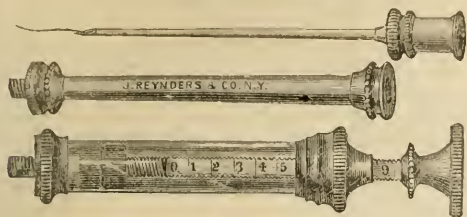
The strength recommended was three parts of carbolic acid to one of olive oil or glycerine. It struck me as being a very ready means of getting rid of those exceedingly troublesome tumors, and I at once put the treatment to the test with very gratifying results.

I found two objections, however, to the hypodermic syringe for that purpose.

First, it was too short to reach internal hemorrhoids through the speculum, and, secondly, the calibre of the needle was too small to admit of the easy flow of the carbolic mixture. To obviate these difficulties I applied to Messrs. J. Reynders & Co., to make me a



syringe as shown in the accompanying woodcut, and which I have named the *Hemorrhoidal Syringe*.



The capacity of this syringe is ten minims. The cylinder is one and a half inch in length; cylinder and piston, when closed, two inches; a small canula attached to the cylinder two inches, and to this a needle two inches long, making the whole length of the instrument six inches. The calibre of the needle is about twice that of the hypodermic syringe. With this I can readily reach any internal hemorrhoid likely to occur, since these tumors are formed almost always by the dilation of loops of veins rather than in the straight longitudinal veins, and hence are seldom situated more than one or two inches from the anus. The injection of carbolic acid is appropriate whenever the ligature is appropriate; for obliterating the dilated vessel before stasis occurs; before a clot is formed. After complete stasis and formation of a firm clot, the lancet is the most ready means of relief. I believe in most instances the injections are equally as effective as the ligature, and possess advantages over it. First, by causing very much less pain, and, secondly, by being much more easily applied, especially above the sphincter. Then there are ten who will submit to the injection to one who will submit to ligation; at least I think it is so in my practice. Then again the bowels need not be shut up as after ligation. The patient can go about attending to light work; morning after the operation take a saline laxative and have a passage from the bowels without the slightest pain or hemorrhage, provided you have selected the right tumor for operation.

In regard to the quantity of the mixture (carbolic acid, 3 iii., olive oil, 3 i.) to be injected into a tumor, it should never exceed five minims at one time. By the use of eight minims I have in two instances seen suppuration follow.

I now use from two to five minims, according to the size of tumor; never inject a tumor a second time until the inflammation has completely subsided, say ten days or two weeks, then, if shrinkage has not taken place, inject a second time. But during this period of waiting we are not to be idle. We must ply our patients with the daily use of *saline cathartics*. When we encounter a case of hemorrhoids we usually find constipation accompanying it, and we are very apt to regard the constipation as the cause of the hemorrhoids. It may be a remote cause, but I believe it is very seldom the primary cause. It is more correct, I think, to regard the hemorrhoids and the constipation as the results of a common cause, viz.: *sluggish portal circulation*. Hence the manifest relief so often obtained in this malady by this class of cathartics.

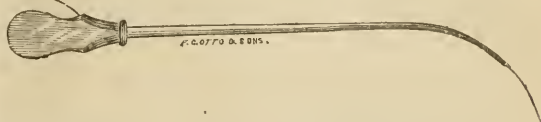
Too much importance cannot be attached to the use of dilute saline cathartics in the treatment of hemorrhoids. The Congress water is my favorite; a pint or a quart every morning before breakfast, as the case may require. In case the patient cannot afford the Congress water I give some of the artificial mineral waters, or the sulphate of magnesia instead. Some one of these should be continued two or three months.

## HOLLOW CONICAL SOUND.

By J. L. HICKS, M.D.,

FLUSHING, NEW YORK.

NEARLY two years and a half ago I requested Messrs. F. G. Otto & Sons to make for me a set of four hollow conical sounds of steel, with an internal calibre of about one-sixteenth of an inch, to be used with a long whalebone guide. The base of the cone is at



the junction of the curve with the shaft. The size of the smallest sound is No. 7 (French scale) at the point, and No. 10 at the shaft; the largest, No. 10 at the point and No. 18 at the shaft; the others intermediate. The curve is Van Buren's.

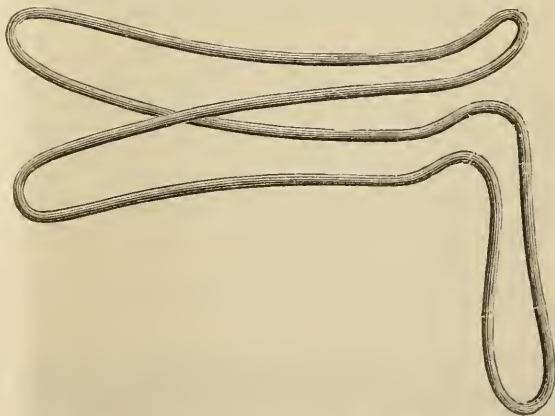
I have demonstrated practically the utility of these sounds in a considerable number of cases of stricture, and have realized their advantages, both for prompt relief of retention and for dilatation, and I believe them to be as safe as any metallic sounds can be. The guide, running through the entire length of the shaft of the instrument, is not likely to become jammed or broken, and the point can hardly go astray and do damage even in unskilful hands. When the bladder has been reached and the guide withdrawn, the instrument serves as a catheter.

## A RECTAL SPECULUM, AND A FEMALE URETHRAL SPECULUM.

By GEO. F. FRENCH, M.D.,

PORTLAND, ME.

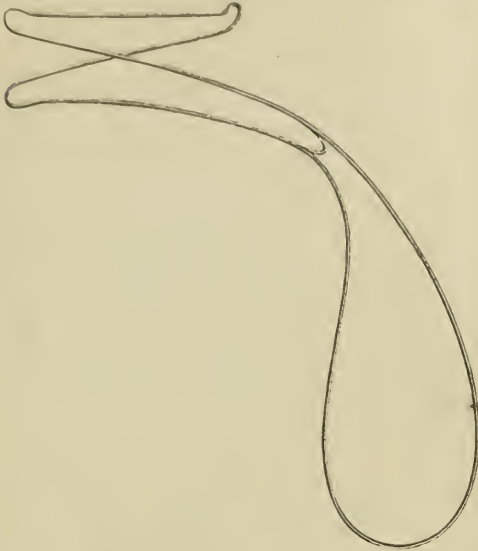
At a recent meeting of the Cumberland Co. Med. Society, at Portland, Me., Dr. Geo. F. French exhibited a modification of Dowell's vaginal speculum adapted to use in the rectum.



The instrument is made of steel wire, of sufficient flexibility to allow the sides to approximate at their ends, when introduced, and with rigidity enough to retain its shape. There is a slight constriction near the handle, for the sphincter ani to grasp, and a lateral flaring of the blades which effectually prevents the instrument from slipping out of the rectum, even after the sphincter has been ruptured. This speculum is equally well adapted for use in the vagina and has

the advantage over other vaginal wire-specula of being *self-retaining*. The handle can be so deflected as to bring the upper, lower, or either side of the rectum into view for mere inspection or operative procedure. The smallest size is an efficient endoscope; can be introduced without discomfort to the patient, and is suitable for ordinary office use; the largest size requires anesthesia, involves rupture or extreme dilatation of the sphincter, and has been found particularly serviceable in quilting a hemorrhoidal surface too rotten to be dragged outside and ligated.

Dr. French has also devised another speculum, on the same principle, for exploring the *female urethra*,



and by simply straightening the handle, it becomes equally serviceable as an endoscope for the dilated *Cervix Uteri*; in both cases its utility will be enhanced by the aid of a concave mirror.

## A PRACTICAL PNEUMATOMETER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Since publishing, about a year since, in the *American Journal of Medical Sciences*, a list of one hundred cases observed with a new form of pneumatometer, so many inquiries have been received from physicians regarding it, that I trust you will grant to them and to myself the space necessary for a brief description of the instrument.

Properly it is a pneumasyren. It is of moderate cost, and portable, with the advantage that it may be prescribed for patients in whom the vital chest capacity is deficient.



The engraving shows the simplicity of the device, but not its mechanism. Briefly, it consists of a glass tube, one inch in diameter and ten inches in length, with metallic end-pieces, a piston made of two disks perforated by two rows of fine sloping holes precisely like the syren of Dove, a spiral spring, and finally an index and register. Expiratory and inspiratory efficiency, both actual and relative, are recorded, and the

waviness and inequality of either are made evident to the ear.

Better and of greater advantage, however, than this is the fact that the instrument will, by constant or rather frequent use, develop chest capacity, re-dilate the cells collapsed and weakened by incipient disease, and by its allowing a free passage of air will do this without danger to the affected tissues—differing in this last particular from the ordinary pneumatometer, which, however perfect as an instrument for scientific observation, could hardly with safety be universally prescribed.

Forced expiration produces a low musical note gradually growing more and more high and intense, but sensitive to the least changes in the power exerted, while the index is steadily pressed toward the further end, and remains in place after the effort is exhausted. The latter has now to be pushed back with a wire replacer designed for the purpose, and by reversing the instrument full and forcible inspiration may be employed with similar results. The tube being graduated, the relation as well as the power of the inspiratory and expiratory efforts may be at once ascertained.

The instrument has been manufactured by Messrs. Shepard & Dudley, of 150 William Street, New York, at a figure scarcely above its cost, and but one-half that paid for those I have had elsewhere made for my own use.

EDGAR HOLDEN, M.D., PH.D.

NEWARK, N. J.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 19 to May 25, 1878.*

The following named officers will represent the Medical Department of the Army at the annual meeting of the American Medical Association in Buffalo, N. Y., on June 4th next:—Surgeons J. R. SMITH, B. E. FRVER, J. J. WOODWARD, and J. S. BILLINGS.

MIDDLETON, J. V. D., Major and Surgeon. Relieved from duty at Fort Schuyler, N. Y. H. and assigned to duty at Fort Wadsworth, N. Y. H. S. O. 86, Dept. of the East, May 17, 1878.

TREMAINE, W. S., Capt. and Asst. Surgeon. Granted leave of absence for one month and permission to apply for one month's extension. S. O. 92, Dept. of the Missouri, May 21, 1878.

CALDWELL, D. G., Capt. and Asst. Surgeon. Granted leave of absence for two months. S. O. 103. A. G. O., May 18, 1878.

A NOVEL MILK ADULTERATION.—To the *Analyst* for April Dr. J. Muter communicates the result of examination by him of a sample of milk to which his special attention has been directed. In consequence of the very low percentage of ash which his preliminary analysis showed. After numerous researches, he at last found that the foreign matter in the milk was glycerine, which is certainly a most ingenious addition, as a solution of that body in water of 12 per cent. strength has a specific gravity of 1.030; and he found, after several experiments, that 35 per cent. of such glycerine water might be added to milk without being detectable either by gravity or by the ordinary "solids not fat" process. Moreover, such an amount does not give any extraordinary sweetness easily detectable by the taste.



## Medical Items and News.

**CONTAGIOUS DISEASES — WEEKLY STATEMENT.**—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 25, 1878.

| Week Ending      | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| May 18, 1878.... | 1             | 7              | 62             | 3                          | 63       | 37          | 1          |
| May 25, 1878.... | 0             | 5              | 43             | 6                          | 44       | 49          | 0          |

**ASSOCIATION OF MEDICAL OFFICERS OF AMERICAN INSTITUTIONS FOR IDIOTIC AND FEEBLE MINDED PERSONS.**—The third annual session of this Association will be held at the Asylum for Idiots (Dr. H. B. Wilbur's), Syracuse, on Saturday, June 8th, at 9 A.M. The following papers will be presented and discussed:

1. "The relation of Speech or Language to Idiocy," Dr. H. B. Wilbur, Syracuse. 2. "The laws of Heredity as defined in the conditions of Idiocy and Imbecility," Dr. G. A. Doren, Columbus, Ohio. 3. "The Brain; relation of Function to Organization or Development," Dr. D. A. Morse, Columbus. 4. "The recent progress in the treatment of Idiots," Dr. E. Seguin, New York. 5. "Education of the Imbecile," Dr. O. W. Archibald, Iowa.

The appointment for Saturday, June 8th, is made, so that members who desire may attend the American Medical Association at Buffalo, and return from thence, after the adjournment, to Syracuse, on Friday, June 7th. The meeting of our Association will hold over the following Monday.

**RATIONAL TREATMENT OF STRICTURE OF THE URETHRA.**—Dr. S. W. Gross, of Philadelphia, read a paper with the above title at a meeting of the Medical Journal Association of this city, on the evening of May 24th. A large audience was present. Remarks were made by Drs. Gouley, Otis, Keyes, Weir, and Stein. The paper will be published in full in a future number of the RECORD, together with the discussion thereon.

**RAPID LITHOTRITY, WITH EVACUATION.**—The crowded state of our columns prevents us from publishing some interesting remarks by Dr. Henry J. Bigelow, of Boston, upon the New Method of Lithotritry. It will appear in our next issue.

**AMERICAN NEUROLOGICAL ASSOCIATION.**—The Fourth Annual Session of the American Neurological Association will be held in this city on Wednesday, June 5th, at 2 o'clock, P.M., in the lower lecture-room of the College of Physicians and Surgeons. The profession are invited to be present.

**MASSACHUSETTS MEDICAL SOCIETY.**—The Ninety-seventh Annual Meeting of this Society will be held at the Lowell Institute Hall, Boston, commencing on Tuesday, June 11th.

**VERMONT STATE MEDICAL SOCIETY** will hold its Semi-annual Meeting at the Brooks' House, Brattleboro, Vt., June 12th and 13th.

**CHEAP MEDICAL LITERATURE.**—"An Eclectic Medical Library for \$3.50. The cream of the literature of this school for the past five years." *Vide* advertising column of one of our exchanges.

**UNIVERSITY OF VERMONT.**—The medical department of this Institution has the largest number of students that have ever assembled within its walls. The increasing prosperity of the college is chiefly due to the Faculty having raised the standard of qualifications for graduation, and to the establishment of the "Mary Fletcher Hospital," which will soon be completed and afford excellent facilities for clinical instruction.

**POSITION OF PARTURIENT WOMEN IN ROUMANIA.**—According to M. Obédénare, the Roumanian women, when in labor, place themselves on all fours, resting on the knees and forearms. The midwife presses the patient around the waist and compresses the abdomen forcibly with her arms, in order to prevent the uterus and its contents from rising in the intervals of the contractions. The after-birth is buried, sometimes with the mother and child.

**ABSORPTION OF TINCTURE OF IODINE BY THE SKIN.**—Dr. L. Menager has experimented upon children with a solution of equal parts of tincture of iodine and glycerine, rubbed into the skin, and has arrived at the following conclusions. 1. Iodine in tincture, mixed with glycerine and applied to the external integument, is absorbed. 2. This absorbed iodine is invariably found in the secretions and in the urine. (Dr. M. tests for iodine by adding a little starch to the urine in a test-tube and then dropping a few drops of nitroso nitric acid into it. This gives a blue or violet color, according to the quantity of starch present.) 3. This application may give rise to certain symptoms, usually a variety of mild temporary albuminuria. 4. Dressings containing tincture of iodine may be employed as a means of introducing this medicine into the system when it cannot be taken by the stomach. 5. It must not be forgotten that when this absorption takes place in patients subject to nervo-vascular erethism, as in certain cases of phthisis, where these dressings are often practised, they may do more harm than good.—*Dublin Med. Press and Circ.*

**DANGERS FROM SALICYLIC ACID.**—Several instances have occurred in which this agent produced disagreeable consequences. Dr. Watelet communicates a paper to a late number of the *Bull. de Therap.* on this subject, entitled "Accidents following the Administration of Salicylic Acid." The details are given of two cases of rheumatism treated by salicylate of soda, one of which was followed by gangrene of the lower extremities, and both by cystitis, obstinate constipation, and coldness of the extremities.—*Dublin Press and Circ.*

**TYPHOID IN MILK.**—Another epidemic of typhoid fever has been traced in a manner which does not admit much room for doubt to contaminated milk, thus again proving how the most essential and wholesome article of diet may become the medium for the diffusion of deadly disease. According to a special report of the medical officer for the Moss Side Local Board, Manchester, no less than twenty-seven persons have recently been attacked with typhoid fever. There were besides five cases in the neighboring districts of Withington and Stretford. All these cases occurred in the first three months of the current year, while during the whole of 1877 but one death from typhoid was registered. Out of the thirty-two cases twenty-nine of the patients received their milk from the same

dairy. With two exceptions the ash-pits and drains in connection with the infected houses were in good order, and among 214 neighboring households receiving milk from another dairy there was but one household affected, and this exceptional instance is explained by the fact that the inmates were in constant communication with one of the houses already infected. The milk dealer who has been the unwilling cause of all this mischief derived his supply partly from his own cows and partly from a farm some miles distant. Those of his customers who drank the milk from the latter source alone suffered from typhoid, and it appears that there were two deaths from typhoid at the farmhouse during the month of February last. We now come to the final connecting link, and it forcibly illustrates the urgent need of sanitary reform in rural districts. The water-supply of this farm was, as is so often the case, situated close to the ash-pits, and on analyzing the water traces of sewage contamination were easily discerned. Under such circumstances it is not surprising that the epidemic soon spread. The water contaminated with the sewage created by typhoid patients had served to wash out the pans, and perhaps even to adulterate the milk sold by this farm, but directly this supply was discontinued the outbreak of typhoid was checked. The history of this epidemic naturally recalls the celebrated outbreak of typhoid in Marylebone, which was also traced to a similar cause. With such instances before us it is impossible to refrain from protesting against the continued carelessness that endangers our milk supply. In how many thousand farms are the ash-pits allowed to contaminate the water-supply? How few persons realize the facility with which sewage matter will percolate through the soil till it has reached the nearest watercourse, where it is taken up and consumed by ready victims of contagion.—*Lancet*.

**COLD SPONGING IN TUBERCULOSIS.**—Dr. Pocagnik, of Vienna, is a warm advocate for cold sponging in phthisis. He prefers sponging to the cold douche, recommended by Brehmer, on account of the violent shock to the nervous system which the douche inevitably produces. Neither hemoptysis nor great weakness is a counterindication to the use of the cold sponge-bath. Dr. Pocagnik's method of using the bath is as follows: On waking in the morning, the patient rises, stands on a soft, warm rug, and sponges himself quickly from head to foot with water at from 77° to 55° F., according to the temperature of the air. Roughly speaking, he may use either fresh running water, or water that has stood in the room over night, according to the season of the year. He then rubs himself as thoroughly as possible with a rough flesh-glove, and finally dries himself by wrapping the body in a linen sheet. The entire process should not occupy more than five minutes. He then returns to bed, covers himself up well, but not sufficiently to cause perspiration, and remains quiet for half an hour or an hour longer.—*Memorabilien*, 3. Heft, 1878.

**TREATMENT OF POST-PARTUM HEMORRHAGE.**—In the lying-in department of the Charité, in Berlin, from September, 1876, to the end of June, 1877, intra-uterine injections of hot water were employed in 103 puerperal women, to check 112 severe hemorrhages. The water was used at a temperature of 122° F., and contained one per cent. of carbolic acid. The injections were continued for several minutes each time, the bleeding tissue in the interior of the uterus being freely bathed with the hot fluid. With the exception of large doses of ergot, these irrigations constituted the only treatment for puerperal metrorrhagia during the

above-mentioned period, and they invariably proved successful. Sometimes, however, it was necessary to repeat them. They were employed in all cases of hemorrhage, whether slight or severe, early or late. The existence of puerperal disease does not counterindicate their employment, but they should not be employed in cases of retained placenta, or of inversion of the uterus. To guard against the decomposition of any clots that might have remained behind, the uterine cavity was washed out once or oftener with a two or three per cent. solution of carbolic acid, on the second or third day after the cessation of the hemorrhage. When this prophylactic irrigation was neglected, a severe endometritis set in occasionally on the third or fourth day after the flooding.—*Centralblatt für Gynäk.*, April 13th.

**THE PREVENTION OF MAMMARY ABSCESS.**—Dr. Miller recommends a new preparation of belladonna, which he claims to be more effective than any of the older combinations, in the treatment of threatened mammary abscesses. The preparation is an alcoholic extract of double the strength of the empl. belladon. of the English pharmacopœia. It is dissolved in colodion, to keep it fluid, and a small quantity of camphor is added to the mixture. The painful breasts are painted with this fluid, morning and evening, or, if desirable, oftener; it dries quickly, and has no unpleasant odor. The painting must be continued until complete recovery. Dr. Miller has found this treatment remarkably successful in cases of inflammation of the breast due to cold, to ulcerated nipples, or to obstruction of the milk-ducts. He has also employed it successfully to prevent the secretion of milk; in that case, the painting of the breasts should be begun immediately after labor, and it should be repeated several times a day.—*Edinburgh Med. Journ.*, 1877.

**TREATMENT OF ASTHMA.**—M. Sée treats asthma with iodide of ethyl and iodide of potassium. The former is given by inhalation during the dyspnoeic attacks; from five to ten drops constitute a dose, and the effect is said to be very rapid and satisfactory. The potash is given in the intervals between the attacks, to ward off their recurrence. M. Sée gives it in large doses, from twenty to forty-five grains per diem. He is not afraid of iodism, which he combats merely by increasing the dose of the drug. In twenty-four cases treated in this way, which have been under observation for several years, his success was very gratifying.—*Gazette Méd. de Paris*.

**TREATMENT OF CYSTITIS BY INJECTIONS OF QUININE.**—Dr. Nunn employs injections of sulphate of quinine in cases of cystitis purulenta with strangury. His formula is as follows: R. Quinine sulph., gr. xv.; aquæ destillat., ℥ xxv.; adde: acidi sulph., q. s. ad solutionem. From two to three ounces of this solution is injected into the bladder daily, and left there. Under this treatment the strangury soon ceases, and the urine perceptibly improves in appearance. *The Lancet*, February 13th; *Ally. Med. Cent. Zeit.*

**NUMBER OF LUNATICS IN PRUSSIA.**—In 1876 the number of insane persons in Prussia amounted to 20,115, of whom 10,754 were males and 9,361 females. Of the asylums from whose statistics these figures were taken, fifty-two were public and seventy-three private. Of the entire number of patients, 24.70 per cent. were suffering from secondary insanity, 23.08 per cent. from melancholia, 19.94 per cent. from mania, 10.01 per cent. from paralytic dementia, and 7.42 per cent. from delirium potatorum.



## Original Lectures.

## ON GONORRHOEA.

A CLINICAL LECTURE DELIVERED AT THE COLLEGE OF  
PHYSICIANS AND SURGEONS, CITY OF NEW YORK.

By F. N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

(Reported for THE MEDICAL RECORD.)

## LECTURE II.

GENTLEMEN:—I propose to continue to-day the study of the subject which engaged our attention at the last lecture.

You may infer that gonorrhœa is a subject of some importance when I tell you that within the year 1877, a prominent English surgeon has issued a book confined to this subject alone, and containing about 400 pages. It is the only book, devoted solely to the consideration of gonorrhœa, of which I have any knowledge. Its author is a gentleman who has been identified with the study and treatment of genito-urinary diseases in England for many years, and I can commend this book to you as the most valuable and comprehensive work on this subject in our language. But in it Mr. Milton has raised some issues which I thought were settled; especially that most important one with reference to the *specific character* of gonorrhœa. After considering the question, as it would seem quite thoroughly, the author arrives at a conclusion which, to me at least, is extraordinary, which is that, so far as he is able to judge, *gonorrhœa is the result of gonorrhœa only*. Now, the French authorities, of which Ricord is the leading representative, almost without exception make the definite and unequivocal statement that true gonorrhœa may be acquired from a simple leucorrhœa. Ricord gives repeated instances of this kind, and also cites examples in which a gonorrhœa, not distinguishable from that acquired by contagion, has been produced solely by a persistent and continued ungratified venereal excitement.

In this country we have Dr. Bumstead (favorably known as an authority in this department) and also Drs. Van Buren and Keyes (who have written an excellent work upon genito-urinary diseases), expressing themselves with the greatest positiveness on this point, each giving cases when, to their certain knowledge, disease in no practical way differing from gonorrhœa, has been acquired by contact with discharges which were not gonorrhœal.

Dr. Fordyce Barker, of this city, quoted by Dr. Bumstead, speaks of a peculiar form of metritis which has associated with it a leucorrhœal discharge, that in repeated instances has produced a purulent urethritis in the male. Not long since a gentleman came into my office, with the statement that he had been married nearly one year; that shortly after marriage a purulent discharge came from his urethra. On consultation with his physician he was told it was of slight importance, and had probably been acquired from a leucorrhœal trouble from which his wife was then suffering. From that time, within three or four days after each sexual congress with his wife, a purulent discharge appeared in his urethra and continued until assisted by an astringent injection. When examined, the man was found to be free from any trouble whatever. Upon examining the wife it was ascertained that she was suffering from retroversion of the uterus; that the surface of the external os was

eroded and covered with a thin layer of muco-purulent material. The uterus was restored to its normal position and retained by a pessary. I was of the opinion at the time that the erosion and discharge were due to displacement of the uterus, and so stated. Under suitable treatment the lady made a prompt recovery, and from that time the gentleman suffered no more from his urethral trouble.

To me, the case seemed to be one that pointed clearly to the leucorrhœal discharge, dependent upon the condition of the uterus, as the cause of the urethral discharge in the husband. This, and the case which I related at the last lecture, in which the patient produced a urethritis by the violent introduction of a sound, I would put forward as among those where there is every reason to believe the urethritis to have been produced by other causes than contact with a gonorrhœal discharge.

Mr. Milton admits that "urethral discharges do appear in men as the result of connection with women laboring under leucorrhœa, *in whom there is no reason to suspect a present or a previous blenorragia*." This admission, however, is wholly negated by the sentence which follows it, thus: "It must, I think, be equally admitted that the facts supposed to establish this, are, when we come to sift the matter closely, generally vague and few." The property of contagion with Mr. Milton, points directly to specific cause; to already existing gonorrhœa as the origin of it in all cases, and where there is absolutely no evidence of such origin, and no reason to suspect it, belief to the contrary, Mr. Milton says, "must remain a mere conviction, and cannot be raised to the stability of truth."

Mr. M. states that in no case that he has read of "is there anything to show that the surgeon had satisfied himself as to the *previous state of the organs in both persons*." On the strength of this he would seem to claim that all the evidence in favor of the non-specific character of gonorrhœa, the carefully observed and reported cases of accepted authorities, are without value, notwithstanding the positive belief acquired through the long and studious experience of such men as Ricord, Didery, Bumstead, Van Buren, and, unequivocally stated, we must believe all urethral discharges associated with the contagious element to have a gonorrhœal origin, "even when there is no evidence of such origin, and no reason to suspect it." Personal statements, from no matter whom, circumstantial evidence, character of individuals, repeated coincidences, all go for nothing.

Even the case previously cited, when the disease was believed *proven* to be of traumatic origin, and which was believed proven to be contagious (and hence gonorrhœal) by the supposed *proven* communication to a presumably healthy wife, even this case may be waived out of the contest as among the not *absolutely* proven cases.

We, however, must admit that all clinical observations and investigations are of necessity more or less empirical until carried to a point coincident with, or to the establishment of some fixed physiological or pathological law. Until such law is established, the most important, the most conscientious and extensive clinical labors must be open to the denial and depreciation of every passing observer of little or much experience. Thus it happens that the most important question, upon the correct or faulty solution of which the honor and happiness of individuals—even of whole families—may depend, the accumulated experience and the deliberate conclusions of our wisest men are disregarded, and the specific nature of gonorrhœa asserted upon the basis of a purely negative personal

experience. If anything could give an incentive and impetus to a movement towards a more scientific solution of the matter we certainly have it here. Naturally we look to the great authorities in histological and pathological science for some clue which shall lead to a more definite understanding of the true nature of the contagious element of gonorrhœa, as well as that equally contagious property which is characteristic of conjunctivitis and infantile leucorrhœa.

It has occurred to me that the difficulty of settling the question with reference to the specific character of gonorrhœa may be simplified if we can go behind all clinical records and consider the changes which occur in the transition between the normal formation of epithelial elements and the characteristic pathological products. Kündeleisch—and his opinion is entitled to consideration—in speaking upon the question of the formation of epithelium, uses a significant phrase, namely, "epithelial infection," and says: "The opinion is inevitable that the embryonal formative cell can only become an epithelial cell when it comes in contact with such; *we must believe in a kind of epithelial infection.*" That is to say, when a formative embryonal cell comes up from the cellular tissue to take the place of a cell that has preceded it, its form and character is determined by coming in contact with epithelial cells already formed.

With reference to other tissues, it is claimed that the peculiar form which the germinal or formative cell is to take is determined by contact with the tissue of which it is destined to become a portion.

If this view is accepted—and I see no ground for objection, but, on the contrary, it is a beautiful explanation of the manner in which different tissues are formed—we have infection as a physiological process, and now the interesting question arises, At what point does the epithelial element cease to have that infective influence? In other words, At what point does it cease to have the contagious property? For, it is here distinctly shown that the epithelial elements possess an essential and characteristic property of contagion. If this be the case shall we accept the contagious element as evidence of gonorrhœa, when we find it in the physiological process? It appears from that, as soon as the fact is recognized, that a contagious principle is contained in the physiological constitution of the parts. The doctrine of contagion receives a fatal blow. One thing is very certain, viz., that as long as this physiological infection, this influence of epithelial cells by their contact with each other, is continued in a salutary way, it gives rise to no disturbance whatever, and the thought of contagion does not arise. But when a cell which has fallen from its integrity exerts its vicious influence upon other cells, disturbance is manifest, and compels attention to its character and powers.

Because gonorrhœal disease is contagious, it has been claimed that this property must be regarded as evidence of the presence of a special virus. If, however, it is the contagious property alone that is characteristic, and this property is the proven attribute of all cells of gonorrhœal discharges, it can no longer be regarded as evidence of the specific character of gonorrhœa; hence the only distinction to be recognized between gonorrhœa and urethritis is a moral one. The term gonorrhœa implies gross immorality. A good man, then, with simple urethritis, perhaps occurring independent of sexual contact, may, by injudicious living or venereal excess, elevate his simple urethritis up to a contagious point. Then he has *gonorrhœa*. He has done nothing morally wrong; he has simply been placed without the pale because of his urethral dis-

charge assuming a contagious form. In that condition he has, perhaps, communicated the disease to his wife, who would, under Mr. Milton's teachings, be qualified to sue for a divorce, and to obtain it notwithstanding there was no evidence of gonorrhœal origin, nor any reason to suspect it.

#### DIFFERENTIAL DIAGNOSES.

Having endeavored to ascertain what gonorrhœa is, we will briefly allude to the question of differential diagnoses.

Inflammation of the mucous membrane covering the glans penis and reflected upon the prepuce or balanitis, may be mistaken for gonorrhœa. This condition may arise from various causes, such as irritation produced by accumulation of sebaceous material beneath the prepuce, or from hypertrophy of the papillæ of the mucous membrane covering of the glans, as in the case exhibited this afternoon.

In that case the irritation produced by the enlarged papillæ had given rise to pus, which had accumulated beneath a long prepuce in such quantity that when the prepuce was drawn back a discharge from the preputial opening took place that could very readily have been mistaken for one issuing from the urethra.

I have encountered cases in which such a mistake has been made, and injections containing various materials used for months in the supposition that the patient was suffering from gonorrhœa, when in truth the urethra was free from all disease except that produced by the injections. In some of these cases it is difficult, because of the degree of phimosis present, to ascertain whether the discharge issues from the urethra or not; but your treatment should not be commenced until that question has been settled.

The next point is to ascertain whether the disease you are called upon to treat is a simple urethritis or a gonorrhœa acquired by contagion.

In most cases the character of the exposure is not well understood either by the person exposed or by the physician. The presumption, when a discharge appears in the urethra of the male after illicit intercourse, is in favor of a gonorrhœa existing in the woman with whom such intercourse is held. At the same time it is not certain that a person having had sexual connection, and having had urethral trouble four or five days afterwards, that a gonorrhœa has been acquired. The natural conclusion is that a gonorrhœa has been contracted.

Now in a very large number of instances it would be a mistake, and a very grave mistake, to consider such a discharge a gonorrhœa, because such a condition may arise from contact with simple leucorrhœa, and also from contact with the menstrual discharge. It is a necessity in these cases to wait, to treat the patient in a very simple way for a few days, until it is ascertained whether or not it is an active contagious disease. If it is not, simple means will be sufficient to effect a cure, and the disease will gradually fade away, leaving the parts in a healthy condition.

Quite commonly, not so much now as formerly, however, an attempt is made to cut the disease short by the use of some active injection. This plan is fast going into disrepute, and justly so, for by adopting it the advantage is at once lost of being able to determine whether the disease would not have readily passed away within a few days by the use of simple means. By such treatment you necessarily add an inflammatory trouble, and if the case is one of real gonorrhœa, you will increase the activity and the inflammatory character of the disease.



## Original Communications.

### THE TREATMENT OF SOME FORMS OF DYSPEPSIA (CHRONIC CATARRH OF THE STOMACH).

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DURING the last ten years I have had the opportunity of observing a considerable number of patients affected with chronic catarrh of the stomach of long standing. They were referred to me principally on account of the accompanying intense gastralgic pains and the very unpleasant cerebral symptoms. In a number of cases these latter symptoms assumed so predominant a character in the history of the disease, that some doubt was entertained as to their true significance—whether it was not the brain symptoms which constituted the primary affection, and the dyspepsia a secondary symptom, instead of vice versa. I could, however, almost always convince myself that the chronic gastric catarrh was the primary affection that brought on the secondary cerebral symptoms, because it existed long (sometimes years) before the appearance of the cerebral symptoms, which latter commenced in a mild, scarcely noticeable form, and only gradually became more serious, and generally disappeared with the cure of the catarrh.

In the majority of cases that have come under my observation, the disease was in an advanced stage, and the patients presented a high degree of anæmia and emaciation. They complained of general prostration and of inability to work intellectually, of loss of memory, sometimes of dimness of vision, without any objective cause, occasionally of tinnitus aurium and frequent faintness; more especially of vertigo, that rendered them timid in walking alone. They almost always felt chilly, and complained of a sensation of fulness and a constant uneasy feeling in the epigastrium. This uneasiness increased to intense pain several times in the twenty-four hours, generally after meals, and especially during the night, thus interfering with sleep, which was sometimes interrupted by the pain at regular hours. They have had frequent eructations, nausea, and sometimes vomiting, and complained of complete want of appetite, notwithstanding their extreme weakness and anæmia. The bowels were costive, the pulse small, the heart's action feeble, the respiration slow, the temperature not increased; rather subnormal, the skin pale and dry, the abdomen tender and distended in the epigastrium.

On examination of the contents of the stomach (ejected by vomiting, or removed with the stomach-pump), I found the reaction sometimes neutral, sometimes even slightly alkaline; and when the reaction was acid, it was not owing so much to the presence of free hydrochloric acid as to that of lactic, butyric, acetic, and other volatile fatty acids. Under the microscope I almost always found numerous sarcinae, ventriculi and other microscopic fungi; the gas escaping with the eructations was a mixture of hydrogen, carbonic acid, and air.

The gases, the acids, the fungi, etc., leave no doubt that the stomach of these patients is the seat of a morbid fermentation. The food, instead of undergoing the normal digestion under the influence of the gastric juice (which in the normal condition contains free hydrochloric acid), is undergoing fermenta-

tion, with evolution of gases and development of fatty acids, of which especially the butyric acid acts upon the stomach as an acute irritant. Hence the distention of the stomach, the gastralgic pains that increase during the height of the fermentation (some time after the introduction of food), and all the other local and general consequences which always accompany chronic gastric catarrh. The permanent dilatation of the stomach (gastrectasia) owes its origin to the paretic condition of its muscular coat, and this causes stagnation of the food within the stomach, the relaxed walls of which are not able to forward the contents by their impaired contractions. On the other hand, this stagnation of the food promotes and perpetuates the fermentation, the vomiting, the constipation, etc. The general consequences produced by the gastric catarrh are chiefly due to the impaired nutrition of the whole system, and manifest themselves as general emaciation and anæmia, especially that of the brain.

Generally the patients who came under my care had tried before a great variety of therapeutic methods. As a rule, it was first attempted to control the gastralgic pains with alcoholic stimulants, spirits of camphor, etc., and which in the earliest stages of the disease would relieve them temporarily, but after a while lost entirely the power of producing the desired effect. Anodynes were then resorted to, with a similar result. Of medicinal remedies, pepsine, bitters, nuxvomica, strychnia, bismuth, alkalies, purgatives, etc., had their turn without avail, and of external applications, different plasters, hydropathy, rubbing, electricity in the form of electrical baths, general faradization, or central galvanization. In addition to all this, special kinds of movement and lift cures, and also different mineral waters and milk diet were vainly tried.

Notwithstanding all these remedies and methods, the disease continued to make steady progress, the dilatation of the stomach increasing sometimes to an enormous extent, the gastralgic pains becoming incessant, with frequent exacerbations, depriving the patient of sleep, and the emaciation, anæmia, and general prostration reaching the highest degree. But, long before the disease advanced to that stage, the patients generally came to the conclusion that they must avoid some articles of food which in their experience increased the eructations, pain, nausea, and vomiting, and therefore at first gave up eating those vegetables which produce flatulence, then a great many other articles, gradually reducing the variety of their diet, and living exclusively on Graham bread, oat meal, mutton chops and beefsteak. Water was also avoided as much as possible, on the supposition that it dilutes the gastric juice, and hence increases the indigestion. At last even this simple diet augmented their suffering and had to be changed for a diet amounting to slow starvation, viz.: rice-water, sometimes rice boiled with milk, and the juice of meat. The only temporary relief during the attacks they found in hot water taken in large quantities. These patients, therefore, had to resort to hot water and the starvation diet to make their life at all bearable. In this stage of the disease the condition of the patients seemed so alarming that doubts would arise as to the correctness of the diagnosis. Indeed, the cachectic appearance of the sufferers would warrant the suspicion that a cancerous affection of some abdominal organ, or cirrhosis of the liver existed, though neither a tumor nor any characteristic symptom of cirrhosis could be detected by the physical examination.

As regards the etiology and diagnosis of dyspepsia, I shall limit myself to a few remarks. I can state

from my own observation that all forms of dyspepsia are incomparably more frequent in this country than in Europe. The majority of all the patients who have come under my care in this country have had one or another form of chronic dyspepsia; even children seem not to be entirely exempt from it, and often exhibit an apparently inherited disposition to the disease. To explain these facts it is only necessary to take into consideration the history of this country and the mode of living of the people. The early colonists had no means of regulating their diet or properly preparing their food, two circumstances which constitute the principal causes of dyspepsia. The immigrants of the present day, the pioneers settling in the far West, labor under the same disadvantages. As a general rule, the culinary art is not yet sufficiently cultivated here; and we often find, even in some hotels, abundant and excellent provisions spoiled by bad cooking. In the cities, the busy life of all classes scarcely allows time for meals, so that people get into the habit of eating in a hurried way, and set the example to their children. Thus the food does not undergo the preliminary changes requisite for a prompt and thorough digestion, viz., mastication and intimate mixture with the saliva. The function of the latter must not be underrated, the diastatic property of ptyalin and the excitation by the alkaline saliva of an abundant secretion of healthy gastric juice being most favorable for the digestion. Moreover, some incorrect notions are prevalent among the public at large, which formerly were entertained by the profession, but are now abandoned owing to our advanced knowledge. Many people think that water ought not to be taken during digestion, because it dilutes the gastric juice; and this rule is most religiously observed by nearly all dyspeptics. And yet, experiments with artificial gastric juice show that food is easily digested, provided there is free hydrochloric acid and plenty of water, a minimum quantity of pepsine being sufficient to digest large quantities of food. Another fallacy, fortunately now losing ground, is the opinion that alcoholic stimulants are useful for digestion, which in reality are exactly the reverse; they disturb, retard, and check digestion, and by irritating the stomach constitute one of the most frequent causes of gastric catarrh. Again, some think that it is very healthy to eat in small quantities, but often. In exceptional cases, in persons with an impaired digestion, where only a small quantity can be digested at a time, we are obliged to give food often in order to support life. As a rule, however, sufficient time is requisite for the food to be thoroughly digested, and it is injurious to add perfectly undigested food to that which is in the process, perhaps in an advanced stage, of digestion. We know, from physiological researches, that by the gastric juice the albuminous substances of the food are transformed into soluble modifications—peptones—which are readily absorbed. But, until the peptones are removed by dialysis (absorbed), no new albumen can be thoroughly peptonized, nor can the peptones be absorbed in the presence of unmodified albuminous substances. It is, therefore, much better to take the necessary quantity of food at long intervals (three or four times in 24 hours), and entirely to abstain from eating anything between the meals.

The diagnosis of chronic catarrh of the stomach may offer some difficulty only in its advanced stages. One of the easiest means to ascertain the extent of dilatation of the stomach is to introduce into it effervescent substances (bicarbonate of soda and tartaric acid); the shape of the stomach is then made palpable

and even visible. The next thing to find is whether the dilatation depends on the gastric catarrh, or whether they are both symptoms of a stricture at the pyloric part of the stomach. This is sometimes exceedingly difficult to demonstrate, and we mostly have to be guided by the previous history of the case (ulcer of the stomach, etc.), or by the presence of a tumor. The microscopic examination of the contents of the stomach, the palpation of the abdomen, the absence of ascites, diarrhoea, etc., must be taken into consideration when making the differential diagnosis of chronic gastric catarrh, cirrhosis of the liver, amyloid degeneration of the bowels, etc. Chronic gastric catarrh is frequently mistaken for cancer of the stomach. I know of a case where an elderly person was considered by her physicians to be suffering from cancer, which, however, was not found at the post-mortem, though during life the patient exhibited all the symptoms of carcinoma ventriculi, except the presence of a tumor. It must be borne in mind that the most prominent symptoms of cancer of the stomach depend on the accompanying gastric catarrh, and may not exist at all without the latter.

After having made the diagnosis of chronic catarrh, I employed formerly the treatment introduced by Kussmaul.\* It consists in the methodical use of the stomach-pump, by means of which, at certain intervals, the stomach is entirely emptied of the stagnated food and the accumulated products of fermentation, and washed out with a weak alkaline solution (soda-water, Vichy). The patients are then given nourishing and easily digestible food in gradually increasing quantities. They are much benefited by this method, and are often ultimately cured of the gastric catarrh; but it requires the constant and prolonged attendance of the physician, and is extremely tedious and unpleasant to both. I have now adopted methods equally efficient, and in some respects much more so, and presenting none of the disadvantages mentioned.

In the earliest stages of dyspepsia the regulation of the diet alone is almost sufficient to arrest its further development. In the treatment of gastric catarrh, our special attention has to be directed to the circumstance that such patients generally abstain from a great many wholesome and digestible articles of food, and are apt to resort to that form of dieting which, in reality, is slow starvation, and which, when prolonged, results in the impairment of nutrition of the most important organs. I therefore recommend to dyspeptics a variety of articles of food (of course, excluding such as are indigestible), and prefer to correct the unpleasant symptoms they may call forth. It is far better to keep up the general strength of the patients, and treat the gastric symptoms, than in avoiding these latter to produce general anæmia and emaciation. It is not difficult to correct the gastric symptoms in the first stages of the disease; an occasional dose of magnesia or rhubarb, sometimes both together, or a wineglass of some bitter water (Friedrichshall, Hunyadi, etc.), taken at bed-time, will often answer the purpose. Even pure water taken repeatedly, subdues the symptoms by washing, as it were, the stomach, and removing the accumulated products of the catarrh.

Experiments on animals with gastric fistula show that the introduction into the empty stomach of an alkali immediately excites an abundant secretion of gastric juice. I therefore advise dyspeptics to take

\* Kussmaul: Ueber die Behandlung der Magenweiterung. Deutsch. Arch. für klin. Medicin. Bd. VI., p. 453.



Vichy water some time before their meals. About a tumbler before breakfast, and a much smaller quantity before lunch and dinner, and also to drink as much pure water as they like during and after the meals.

It is advisable to rest awhile after meals, muscular or mental over-exertion being injurious, because the supply of blood is then diverted to the muscles or nervous centres, whereas during digestion the stomach ought to be in a state of congestion. Therefore, rest should be taken after the principal meals, even a little sleep, in order to afford the stomach the greatest amount of blood necessary for its increased activity. Infants and animals instinctively follow this rule. On the other hand, substances in a state of fermentation, or which readily undergo fermentation, like beer, sweet things, etc., ought to be avoided, as also those substances which the stomach, affected by catarrh, is apt to produce itself—acetic, lactic, and butyric acids. Therefore, vinegar, bad milk, and especially rancid butter and fatty substances must necessarily be avoided. Unfortunately, such patients are sometimes even advised to take exactly the above-mentioned acids (vinegar bitters, lactic acid, etc.), in the supposition that the gastric juice is acid and contains lactic acid. But the acid which in the free state is always present in the normal gastric juice is hydrochloric acid; the lactic and other acids are produced by the chronic catarrh of the stomach, and rather interfere with the healthy digestion. One of the best remedies, and often quite indispensable in dyspepsia, is hydrochloric acid, diluted in water, which I prescribe to be taken after meals. Physiological experiments have proved that one to four parts of free hydrochloric acid to one thousand parts of the gastric juice are most favorable for the digestion, while only a trace of pepsine is sufficient, and can be utilized over and over again in the process of digestion, provided the necessary quantity of hydrochloric acid and water be added. In the great majority of dyspeptics, if not in all, there is a deficiency of hydrochloric acid in the gastric juice, which must be considered as the principal cause of the abnormal digestion. This is especially the case with anæmic persons or during the febrile condition. Manassein\* experimentally demonstrated the deficiency of hydrochloric acid as being the cause of the deranged digestion during fever or anæmia. This acid, therefore, ought to be supplied to all patients affected with fevers, to anæmic persons, convalescents, and dyspeptics generally. The experiments of Manassein made by him on anæmic and feverish animals have also shown that food mixed with their gastric juice easily undergoes putrefaction if no hydrochloric acid is added. I found that common salt or substances containing salt—like oysters, for instance—are useful in dyspepsia, because salt is an antifermentative, and the chlorine of the salt during digestion is transformed into hydrochloric acid.

In the more advanced stages of the disease one of the principal indications is to check the morbid fermentation in the stomach. The experiments of Hoppe-Seyler on animals† have shown that the healthy gastric juice is one of the best antifermentative remedies, as it prevents cane-sugar from fermenting even in the presence of fungi. In treating, therefore, the gastric catarrh, our efforts must chiefly be directed towards re-establishing the secretion of the normal gastric juice.

In order to arrest the fermentation, I prescribe, according to Botkin's recommendation, chlorine water\* (freshly prepared according to the German pharmacopœia), to be taken several times a day, sometimes even every hour. It not only checks the fermentation, but, being ultimately transformed into hydrochloric acid—a natural constituent part of the gastric juice—it promotes digestion. After the disappearance of the morbid fermentation in the stomach, the chlorine may be substituted with advantage by the hydrochloric acid. Of late I have tried with good results to arrest fermentation by very small doses of thymol, but further observations are requisite to corroborate my first impressions. Quite recently I have used in one case, to be mentioned hereafter, salicylic acid, with a most excellent result. In some exceptional cases, when the food stagnates unusually long in the stomach, owing to an excessive dilation and loss of contractility of the stomach, or to a strictured condition of the pyloric portion, it may occasionally become necessary to use the stomach-pump, or give Carlsbad salt one or two drachms in a large quantity of warm water, administering it before breakfast in two or three doses, at intervals of ten or fifteen minutes. Instead of Carlsbad salt, a mixture of sulphate of soda eighty-five per cent., common salt twelve or fourteen per cent., and two or three per cent. of carbonate of soda, can be used with the same, and sometimes even with better effect. A solution of these salts stimulates the contractions of the stomach and the peristaltic motions of the bowels, causing several free passages, besides washing out the stomach and exciting the secretion of normal gastric juice, and thus promoting the digestion of the food now to be introduced. I need scarcely add that, until the disappearance of the gastric catarrh and the cessation of pain, some palliative may occasionally be administered—for instance, small doses of morphine, alone or in combination, with bismuth, etc.

One of the most important indications in the treatment of gastric catarrh is to reduce the dilatation of the stomach. Although with the abolition of the catarrh the stomach has a tendency to assume its normal dimensions, yet, owing to the atrophy of the muscular coat and its parietic condition, the diminution of the size of the stomach progresses very slowly, and the peristaltic contractions remain for a long time imperfect, thus causing the stagnation of food. Hence the great persistency of all the morbid symptoms, and the excessively protracted treatment, notwithstanding the employment of the most rational and efficient methods. As gastrectasia, in some degree, is always present in gastric catarrh (and also in hysterical gastralgia), I have introduced a special treatment of the dilated stomach.† It consists in producing contractions of the stomach by means of induced currents in the following manner: Both electrodes, in the shape of broad plates, are applied transversely (stabil) to the remotest portions of the dilated stomach. The current is gradually increased from minimum intensity to its maximum, and after several seconds' duration again diminished to its minimum. This is repeated fifteen to twenty times in succession, with a pause of several seconds between. Then the electrodes are applied to two other distant portions of the dilated stomach in a vertical or diagonal direction, and the current again alternately increased and diminished in the above described manner. In addition to these "fluctuating induction currents," I employ another method

\* Manassein: Centralbl. f. med. Wis. 1871. p. 853.

† Hoppe-Seyler: Ueber den Einfluss des Zuckers auf die Verdauung und Ernährung. Virch. Archiv. Bd. X., p. 144.

\* Botkin: Ein Fall von Stenosis pylori, etc. Berl. kl. Woch. No. 38.

† Neftel: Die Behandlung der Magenectasien beim chronischen Magenecarrh. Centralb. für die med. Wissensch. 1876. No. 21.

of "tetanizing induction currents" in the following manner: while the broad electrode is kept steadily at one portion of the dilated stomach (the current being of maximum intensity), the smaller electrode is suddenly pressed against the opposite portion during several seconds, then suddenly removed, and after a short interval again suddenly applied and removed, repeating this alternate applying and removal about fifteen or twenty times in succession. The electric treatment by means of one of these methods, or of both combined, is daily resorted to until the disappearance of all the morbid symptoms. The contraction of the stomach produced by this treatment can be ascertained by percussion, and by the immediate relief it affords, although this effect is not lasting from the first, and the stomach assumes its previous size; but the tone of the muscular coat soon improves from the repeated applications of the current, and the size of the stomach becomes ultimately reduced. Under the electric treatment the costiveness invariably disappears, thus indicating the increased tone and peristaltic motion of the stomach and bowels.

After the disappearance of the gastric catarrh, there remains for some time a torpid state of the digestion, caused very probably by insufficient secretion of the gastric juice. We know from the earliest observations made by Beaumont\* and others, that in fever, for instance, no gastric juice is secreted, not even by the excitation of the introduced food. The consequence is that the food remains unchanged in the stomach during twenty-four or forty-eight hours. Something similar takes place in torpidity of digestion, as can be ascertained with the stomach-pump. (Leube in Ziemssen's *Cyclopaedia*.) Physiological researches offer different means of exciting immediate and abundant secretion of the gastric juice, the most powerful stimulus being saliva; ether, cold water, alkalies, etc., belong to this category. But, in order to promote the secretion of a healthy gastric juice in a more permanent way, we possess other remedies, like bitters, nux vomica, and especially small doses of rhubarb. One- or two-grain doses of rhubarb, taken several times daily during several weeks, materially improve the digestion of such patients by exciting the secretion of a normal gastric juice. Large doses of rhubarb act more on the liver and bowels, and therefore do not answer the purpose.

With the disappearance of the gastric catarrh, and possibility of taking in sufficient quantities a variety of food, the general health becomes finally restored to its normal condition.

The chronic gastric catarrh, if not entirely cured, invariably results in anemia, which may continue as an independent disease and be the origin of some grave and fatal affection: pernicious progressive anemia, fatty degeneration of the heart, marastic thrombosis, etc. The anæmic condition can be successfully treated with preparations of iron, which I generally prescribe to be taken with the meals (from two to five grains of iron by hydrogen, two or three times a day, with the principal meals). The iron is then readily assimilated with the food, and the patient increases in weight and assumes a healthy appearance, in a remarkably shorter time than when given in the usual way. I continue during several months the use of iron in smaller doses (two or three grains), without causing the slightest inconvenience to the digestion.

The foregoing remarks contain the general principles which I follow in the treatment of dyspepsia,

modifying them according to the peculiarities and requirements of the individual cases. From a large number of cases I offer here only a few illustrations.

Mr. B., of New York, 64 years old, was suffering from an aggravated form of dyspepsia during many years. Previous to the appearance of dyspeptic symptoms he enjoyed excellent health, and was very active. He worked hard as a builder, and, owing to his great energy and perseverance, accumulated a large fortune. With the rapid increase of means he could accordingly augment the amount and variety of food, without, however, allowing the stomach the necessary time for digestion, continuing to speculate in real estate and to work with enhanced energy and excitement. The result was dyspepsia, appearing first in a mild form, and in the course of years gradually assuming a most distressing character. He was treated by eminent physicians here and in Paris, receiving but slight and temporary relief. I examined him for the first time, July 12, 1873. He is of middle size, very well built, intelligent-looking, but exceedingly pale and emaciated. He complained of pain in the epigastrium, increasing after meals, and more especially at night, depriving him of sleep. He could take but a few articles of food, and in the smallest quantities, as even the simplest things in larger quantities invariably aggravated the suffering. He had constant eructations, and often vomiting, which somewhat relieved the pain, though for a short time. The bowels were costive, and moved only by taking cathartic pills. He felt very weak and chilly, the extremities were cold, he had dimness of vision, and occasionally tinnitus aurium. He often had attacks of vertigo, at times so severe and prolonged, and accompanied with such a sensation of faintness, that he was obliged to sit down, in order to avoid falling. On account of this vertigo and loss of memory, he had generally to be accompanied by his son, especially when transacting business, which at last he was on the point of giving up altogether. The epigastric and hypochondric regions were bulging out, the stomach much distended with gases, and its slow peristaltic motion could be plainly observed; the skin pale and cool; the temperature in the axilla  $36^{\circ}\text{C}$ .; the pulse weak, 46; respiration slow, 10 in a minute. Nothing abnormal could be detected in the thoracic and abdominal organs, except the dilatation of the stomach; no tumor. The urine scanty, slightly alkaline, contained no albumen or sugar, but a large amount of indican (tested with muriatic acid and calcium chloride). The sediment consisted chiefly of crystals of magnesium ammonium-phosphate. The vomited masses had an acid reaction and rancid odor. When left for some time in the test-tube, presented two, or rather three layers, the upper of a grayish color and frothy, containing, besides gas-bubbles, debris of food (fat-drops, muscular fibres, etc.), and becoming more voluminous after standing. The lower layers were brownish and darker at the bottom, where, besides some residua of food (amylaceous bodies), a large quantity of sarcina and other fungi were found under the microscope. In making the patient pass the gases evolved, by eructation, through a tube, they could be made to burn with a pale flame (hydrogen). A piece of coagulated albumen, after remaining for three hours in a test-tube filled with the vomited mass, was found almost unchanged (the edges slightly rounded). The vomited masses scarcely contained a trace of hydrochloric acid (tested with argentic nitrate), but a considerable amount of butyric acid (the distillate gave with boric hydrate the characteristic crystals), and of lactic acid (by Hoppe's method). There was

\* Beaumont: Experiments and Observations on the Gastric Juice, Edinburgh, 1828, p. 99.



no alcohol in the vomited masses, which continued to ferment in the test-tubes, as indicated by the increased volume of the upper frothy layer. By adding different antifermentative substances (permanganate of potash, borax, camphor) to separate portions of the vomited masses, it could be observed that hydrochloric acid, and still better, chlorine, decidedly checked the fermentation, and pieces of coagulated albumen would become entirely dissolved. It was evident from the chemical and microscopical examinations that the dilated stomach of the patient was the seat of fermentation; moreover, by the presence of butyric acid, hydrogen, and the absence of alcohol, it could be specified as butyric acid fermentation.

It remained yet to decide whether the fermentation was caused simply by gastric catarrh, or whether this latter, together with the fermentation, was called forth by stenosis of the pylorus; and if so, whether the stenosis was the result of a cicatrix or of a tumor within the walls of the stomach or in some adjacent organ, and merely pressing upon the pylorus. The previous history of the patient, who at no time had any symptoms of ulcer of the stomach, excluded the cicatricial stenosis, and the long duration of the disease made the existence of a malignant tumor improbable. Accordingly, I began treating the patient as if affected with simple gastric catarrh, reserving the prognosis on account of the indican in the urine. At that time I had the opportunity of observing a number of cases with cancerous deposits in the liver and other viscera, who all had a large amount of indican in the urine.\* The recent researches of Jaffe† and Senator‡ have shown that indican may be present also in various other diseased conditions. I prescribed the solution of Carlsbad salt in divided doses, to be taken before breakfast (on the first day only), and strong, freshly-prepared chlorine-water every hour. I also advised him to drink pure water with and between the meals, and treated him with induced currents. Besides applying the electrodes to the stomach in the way above described, I applied them also to the hypogastric region, in order to stimulate the activity of the bowels. The electric treatment was continued daily, and so was the chlorine (every two hours). The pains, eructations, vomiting, became less intense and less frequent, and soon entirely ceased. The appetite improved from the very beginning of the treatment, though under my advice he had to increase very gradually and cautiously the amount and variety of food. With the abolition of pain he slept soundly, and his general health steadily improved. After the disappearance of the symptoms of fermentation the chlorine was left off, and hydrochloric acid prescribed, to be taken with water after each meal. A mixed diet was then allowed, with the exception of salads, sardines, fatty and other indigestible substances, and at the end of the month the patient considered himself almost well. There remained, however, a considerable degree of anæmia, general debility, and a slight weakness of digestion, occasionally calling forth some pain, and a tenderness and swelling in the epigastric region. I ordered one-grain doses of rhubarb four times a day, and continued the treatment with induced currents—at first daily, and then every other day. After two months' treatment, the general health of the patient was in an excellent condition. He felt strong, could

walk long distances, and the sleep, digestion, and bowels became quite normal. Together with this treatment, and on account of the marked cerebral symptoms, I employed galvanization of the brain, according to my method described in the *Archiv für Psychiatrie und Nervenkrankheiten*. Bd. VIII., p. 409. The patient still continues in excellent health, and never complains of either dyspeptic or any cerebral symptoms.

I will now give an instance in which the cerebral symptoms were the principal object for treatment, while the dyspepsia to which they were due was considered of secondary importance.

Mrs. R., fifty years old, a cultivated lady of high standing in society, complained principally of a sensation of faintness, as if the head were swimming. This sensation recurred quite frequently, and at times lasted so long that she was obliged to sit down to prevent falling. After evacuation of the bowels, which almost always had to be produced artificially, she invariably felt quite faint and had to remain in a recumbent position for an hour or more, though there was no local pain in the rectum, and neither a fissure nor piles. She suffered besides from general debility, being unable to take food in sufficient quantities, because it produced pain and swelling in the epigastrium, and frequent and loud eructations. She had to exclude a great many articles of diet, as they always increased the distressing symptoms. She was therefore reduced to the simplest food in insufficient quantities. Owing to the judicious advice of her physician, and the great care the intelligent lady observed in her diet, the dyspepsia was kept in check during a great many years, her principal complaint being vertigo, headache, fainting fits, and other cerebral symptoms.

On examination, Nov. 17, 1873, I found considerable emaciation and anæmia, the stomach moderately dilated. I prescribed a full dose of calcined magnesia at bed-time, and the chlorine to be taken every two hours, and commenced the electrical treatment of the dilated stomach and torpid bowels, and the galvanization of the head. At the same time I advised her to eat a variety of articles of food in considerable quantities, and should this diet produce indigestion, to correct it by a dose of calcined magnesia. In about a fortnight I substituted hydrochloric acid for chlorine, and, as an after-treatment, prescribed small doses of rhubarb, and finally iron. The result of this treatment was entirely successful; the dyspepsia and cerebral symptoms vanished, the patient gained flesh, and her general health became excellent in every respect.

I shall briefly relate the following case, to show the beneficial effect derived from the use of salicylic acid as an antifermentative in chronic catarrh of the stomach.

Mr. M., an elderly gentleman with a good constitution, but for many years a prey to gastric catarrh, consulted me Oct. 31, 1875. The dilatation of the stomach was moderate, though the gastralgic pains were often intense. Being a resident of Massachusetts, he could only occasionally be treated for a short time, and therefore could receive but temporary relief. Two years previously he had an attack of inflammatory rheumatism, which kept him in bed for nearly two months, and since then was several times threatened with a return of the disease. I prescribed for him salicylic acid, to use in case of another attack. Last year he became ill with inflammatory rheumatism accompanied with high fever, and after suffering intense pains in the inflamed and swollen articulations

\* Neffel: Die electrolyt. Behandl. bösart. Geschwülste. Virchow's Arch., Bd. 57, p. 242.

† Jaffe: Ueber die Ausscheidung des Indicans, etc. Virchow's Arch., Bd. 70, p. 72.

‡ Senator: Ueber Indican und Kalk Ausscheidung, etc. Berl. klin. Woch., 1877, No. 42.

during twenty-four hours, he decided to try the salicylic acid according to my prescription. He took eight grain doses every hour, beginning in the morning, and towards evening the pains, swelling, redness and fever almost entirely disappeared. During several days he took salicylic acid three times a day, and found to his great amazement that with the disappearance of the inflammatory rheumatism the dyspeptic symptoms had also subsided, so that he was able to eat larger quantities and a variety of food, and gained flesh. He still continues to be in remarkable good health.

The two following varieties of acute gastric catarrh present a peculiar interest—the one often leading to the chronic form, and the other being of great diagnostic importance.

The first appears in a most acute form, and is accompanied with intense gastralgic pain. It attacks, sometimes, persons who were previously in good health, or had but very slight dyspeptic symptoms. After prolonged excesses in diet, especially when coupled with a liberal use of alcoholic liquors, the patients are attacked with nausea, vomiting, and violent pains in the stomach, which increase in the night and prevent them from sleeping; there is a complete loss of appetite, costiveness, vertigo, and headache. This condition may continue for days and weeks, and finally pass into the chronic form of gastric catarrh, if the acute attack is not radically cured. The accompanying headache and vertigo often arouse suspicion of a brain affection, were it not for the acute gastric symptoms, which are ascribed to inflammation of the stomach.

Gen. —, a strong and formerly very healthy gentleman, during the last five or six years indulged greatly in eating and drinking. Being very popular, he was often called upon to attend dinners, where, besides the abundant courses, wine was partaken of in profusion, and cigars smoked. After one of such gastronomic dinners he was attacked with nausea and vomiting, followed by intense pains, which kept him awake all night. Notwithstanding the remedies employed (mostly homœopathic), the gastralgic pain, nausea, vomiting, and want of sleep continued during four weeks. I saw him for the first time, Aug. 14, 1873. Besides the above-mentioned symptoms, he complained of headache, vertigo, eructations, and costiveness. The tongue was red, the abdomen tender in the epigastric and right hypochondric regions, the stomach was distended, the liver enlarged. I prescribed Carlsbad water (Sprudel), to which was added Carlsbad salt, to be taken before breakfast, and the chlorine every hour, besides the treatment with induced currents of the stomach and bowels. All the morbid symptoms, including costiveness, disappeared in a few days, so that he could resume his business, continuing for some time the electrical treatment, the diluted hydrochloric acid, and finally only the small doses of rhubarb. A year later, owing to excesses in diet, he had a new acute attack, but was promptly relieved by the same treatment. Last year a similar attack befell him in the country, where he suffered intensely during several weeks, and recovered only after coming to New York and resuming the treatment.

I would call the attention of the profession to similar acute gastric attacks which appear periodically in persons suffering from locomotor ataxia and other affections of the spinal cord. Of late, Charcot\* has described them in his admirable work under the name

of *crises gastriques* or *gastralgiques*; but I believe that these attacks are still very little known, and not even mentioned in many text-books on diseases of the stomach, thus giving cause for great diagnostic errors. The case I here relate is not only of a theoretical interest, but of great practical importance. It teaches for the first time, so far as I know, that the periodical acute gastric attacks may exist for years before the appearance of any other symptom of locomotor ataxia. These attacks are therefore of the greatest value as an early premonitory symptom of most dangerous affections, the development of which may thus be prevented by an appropriate treatment.

Mr. C., 46 years old, came under my care February 9, 1877, affected with locomotor ataxia in a very advanced stage. He has a good constitution and is of healthy parentage, married twelve years, has three healthy children, and was formerly in good health. Before his marriage he was much addicted to drink and excessive venery, and even the first year after his marriage he continued to use alcoholic liquors until about eleven years ago, when he gave them up after an attack of intense gastralgic pains and incessant vomiting, lasting for about a week. Five weeks after his recovery he had another attack, and since then the gastric attacks appeared periodically, at first every five weeks, and afterwards oftener. During the attacks he remains for several days prostrated with intense gastralgic pain and incessant vomiting, takes no food at all, and passes sleepless nights. These very acute symptoms gradually subside in the course of a week or ten days, when his digestion becomes again normal, and remains so until the appearance of another attack. These gastric attacks were for a long time ascribed to inflammation of the stomach, and treated accordingly, but afterwards they were considered as a simple gastralgia, and therefore more successfully managed. Several years later, in addition to the gastralgic attacks, he commenced to suffer intense neuralgic pains in the lower extremities, and after awhile also in the upper ones. They always alternated with the gastralgic pains, so that with the appearance of the gastric attack the excruciating pains in the extremities subsided. These latter were considered as rheumatism, and, after numerous remedies were tried in vain, the patient was sent to hot springs, where he remained during a summer and winter. There his locomotor co-ordination, his sight and hearing became very much impaired, and he returned home in a greatly aggravated condition. He then consulted different specialists, who all declared the disease to be a well-marked case of locomotor ataxia, though the gastric attacks were still considered as a simple gastralgia, and in no connection with the sclerosis of the cord. He is now treated by me with the galvanic current, under the influence of which the sight, hearing, and locomotion have greatly improved, the neuralgic pains have disappeared, and the gastric crises occur but seldom (once in several months), and in a very mild form.

The so-called *crises gastriques* may accompany not only locomotor ataxia, but also other diseases of the spinal cord, like central myelitis and multiple sclerosis in their earliest stages—therefore, at a time when these diseases can yet be more successfully treated. The last case proves that these gastralgic attacks may even precede the development of the spinal disease, and thus become a most valuable premonitory symptom of the approaching danger. It is evident, therefore, that the early recognition of their true nature is of the greatest practical importance. Unfortunately, they are scarcely ever recognized, and thus give rise to great diagnostic

\* Charcot: *Leçons sur les maladies du système nerveux*. Part I., p. 32, and Part II., p. 266.



errors. And yet these gastric attacks present some characteristic peculiarities which always make the diagnosis possible and often easy. Thus, the attacks appear periodically, during the intervals of which the digestion is quite normal or nearly so; they are accompanied or followed by the neuralgic pains of the extremities peculiar to tabetics (*douleurs fulgurantes*). During the attacks the pulse is accelerated, but the temperature remains normal. Later there is incipient impairment of sensibility, vision, and locomotor co-ordination, etc. In some exceptional cases the gastralgic attacks and a slight impairment of vision (or merely a tendency to fall when the eyes are closed) are the only symptoms of locomotor ataxia, the real nature of which may thus remain unrevealed for a long period of time.

Before dismissing the subject, I wish to make one more remark concerning the electrical treatment above described. Being employed in conjunction with other remedies, it is not evident how much of the result of the treatment has to be ascribed to its influence. The following case seems to prove that the electrical treatment is an important factor in reducing the gastrectasia, and removing the atonic condition of the bowels.

Mrs. W., æt. 43, wife of a physician in Montgomery, Ala., placed herself under my care in September, 1874, for the treatment of habitual constipation of twenty years' standing. The dyspeptic symptoms were kept in check by the judicious treatment of her husband; the dilatation of the stomach was moderate, but the costiveness baffled every treatment, and the bowels could not be moved without a cathartic. Her husband sent her to New York solely for the electrical treatment, having satisfied himself that internal remedies, of which she had already taken great quantities, did not modify the habitual costiveness. I was therefore enabled to observe in this case the effect of the electrical treatment alone, applied in the above described manner. The result was a permanent cure of the costiveness and of the dilatation of the stomach. The anæmic condition was subsequently treated with iron.

In conclusion, I will sum up the foregoing in a few propositions.

The local effects of the chronic gastric catarrh are:

1. Fermentation in the stomach (butyric acid), with evolution of gases (inflammable) and formation of fatty acids (butyric, lactic, acetic).
2. Dilatation of the stomach (gastrectasia) and impairment of its peristaltic movements.
3. Stagnation of the food in the stomach and atonic condition of the bowels.
4. Gastralgic pains and vomiting.

The general effects of the gastric catarrh are emaciation and general anæmia from the defective nutrition of the system, especially anæmia of the brain, causing vertigo and other cerebral symptoms.

The diet of those affected with chronic gastric catarrh, though simple and easily digestible, must not be too uniform, and pure water can be used ad libitum.

The principal indications in treating chronic gastric catarrh are:

1. To arrest the fermentation (by antifermentatives—chlorine, thymol, salicylic acid, hydrochloric acid, etc.).
2. To treat the gastrectasia and the atonic condition of the bowels with induced currents.
3. To excite the secretion of a healthy gastric juice by the use of alkaline waters, small doses of rhubarb, bitter remedies, etc.
4. To improve the digestive properties of the gastric juice by the administration of hydrochloric acid,

not only in dyspeptics, but also in anæmic persons generally, and in those affected with fevers, and in convalescents.

It is of the utmost importance to diagnosticate early the gastralgic pains (*crises gastriques*), which sometimes accompany, or even precede, the development of locomotor ataxia and other diseases of the spinal cord.

On the early diagnosis depends the possibility of preventing or curing these organic affections of the spinal cord.

## TREATMENT OF STOMATITIS MATERNA.

By E. P. HURD, M.D.,

NEWBURYPORT, MASS.

THE pathology of this affection, which is sufficiently common in the experience of general practitioners, is obscure; is seen in patients who seem to be well in other respects; is generally an index of lowered vitality; sometimes an inflammation, the result of local nutritive disturbances of reflex origin, the irritation being mammary. In the ptalism of pregnancy we see an instance of the same etiological kind.

Stomatitis materna takes the form of acute or chronic oral catarrh, also aphthous and ulcerative stomatitis.

It is sometimes very obstinate and intractable. Weaning the child always brings about a speedy cure. It is, however, generally amenable to treatment of a simple nature. Where, from lowered vitality, a tonic regimen, as quinine, porter, iron, and cod-liver oil is required, there are two preparations of the latter in the market, which I find almost equally serviceable—Scott's Emulsion and Phillips'. Many, however, can take Phillips' oil that cannot take Scott's. Phillips' oil is borne by the most delicate stomachs. I consider this preparation invaluable for nursing women whose nutrition is below par.

Nursing sore-mouth will often yield to astringent gargles, or mouth-washes. Chlorate of potash is good in this affection, as in all other oral affections of an inflammatory and ulcerative nature.

The glycerite of tannin, a great favorite of Ringer in all these complaints (see his *Handbook of Therapeutics*, page 300), is sometimes all the application that is needed—to be brushed over the parts affected twice or three times a day. Where astringents alone will cure, this will cure.

The sulphites, especially the sulphite of sodium, the sulpho-carbolate of sodium, are recommended. The sulphite of sodium may be given internally in doses of a scruple three times a day, and also used as a mouth-wash. The same dose (ʒi.) may be given of the sulpho-carbolate of sodium, and, dissolved in an ounce of water, used as a gargle. These medicines undoubtedly have an alterative effect, as well as a local action (see Braithwaite, Part 63, page 24).

The tincture of smartweed (*Polygonum punctatum*) in drachm doses, diluted with water, to be taken internally, and used as a gargle, is highly recommended by a writer in the *Philadelphia Medical and Surgical Reporter*. Another authority regards bismuth, in ten-grain doses, as a certain remedy.

In several obstinate cases I have used the following formula with good results. (The formula is borrowed from the *Reporter*.) In one case cure followed in less than a week, but during its use the baby, previously well, was severely griped and purged. I think that it should be used with much caution, and discontinued in a few days if it does not seem to do good, or if it

affects the b. injuriously. The dose of the biniodide is about one-thirtieth of a grain:

|                          |        |
|--------------------------|--------|
| R. Hydrarg. biniod ..... | gr. v. |
| Pot. iod. ....           | gr. x. |
| Aque .....               | 3 j.   |
| M. Ft. sol. liq.         |        |

Take three to five drops, *ter die*, after meals. For a mouth-wash, add six drops to a tablespoonful of water.

This remedy, besides its local stimulant and resolvent action, undoubtedly does good as an alterative, improving local and general nutrition.

## A CASE OF SPURIOUS HERMAPHRODISM IN THE MALE.

By W. E. WHEELOCK, M.D.,

NEW YORK.

IN January, of this year, during my service as house physician in Bellevue Hospital, a case of spurious hermaphrodisism in the male came under my notice. The patient came to the office for examination, at the out-door department, gave a history of pudendal disease of some sort, and was sent to the hospital with a permit for admission to one of the uterine wards.

Upon admission to the hospital the patient gave the following history: Age, twenty-three years; birth-place, England. When a child, noticed that her genitals were somewhat unlike those of the generality of her sex. At the age of thirteen years, while reaching to light the gas, felt something slip from the abdomen into the right labium majus, which slipped back again when she lay down. At the age of fifteen began to have a leucorrhœal discharge, more or less of which she has had ever since. Never has had any discharge of blood from the vagina.

The patient was here closely questioned, and it was impossible to obtain a history of any series of symptoms occurring at intervals of a month, or thereabouts, which could point to any attempt at the establishment of the function of menstruation, either normal or vicarious. At the age of eighteen years, married, but has never been pregnant. Is very fond of children, and has adopted a little boy, to whom she is much attached. Came to the hospital on account of a painful swelling on the right side of the vulva, which does not annoy her much while she is in a recumbent position, but which occasions much distress when she attempts to walk.

Upon a hurried examination the patient's trouble seemed to be an abscess of the right vulvo-vaginal gland. A more careful examination showed that the patient was not a female, but an imperfectly developed male, who, however, certainly thought himself a woman. The following notes of the case were then taken: The patient is of medium height and weight; the face and head are of male size and shape; the facial expression is decidedly masculine; there is a delicate moustache upon the upper lip; the hair of the scalp is coarse and long; the voice is boyish and husky; the shoulders, chest, trunk, pelvis, and upper and lower extremities, especially the hands and feet, are decidedly male in type; there seems to be an entire absence of mammae.

What at first sight appeared to be the clitoris is in reality a penis two inches long, with two corpora cavernosa, a glans, corona glandis, fossa, and prepuce; there is no corpus spongiosum. The penis is possessed of moderate erectile power. Below the penis are two folds, which resemble closely the labia

majora of the female, but they are smaller, and apparently contain much less adipose tissue; between them is a cavity which resembles the vagina, but it is not more than two and one-half or three inches in depth, and grows smaller from without inward, tapering to a point, where it ends in a blind cul de sac. The lining membrane of this cavity, near its apex, is the seat of a slight ulcerative process, which probably is the cause of the discharge which the patient described as leucorrhœa. On the right side, in the fold which resembles so much the labium majus, is a body as large as an almond, which resembles precisely, in shape and feel, the testis of a boy; it, and the tissues in its immediate vicinity, are inflamed and tender to the touch, presenting very much the appearance of an inflamed Bartholin's gland. It was for this that the patient sought medical aid.

In the left groin is found another body precisely similar to the one just mentioned, which, being severely compressed, the patient complained of a sickening pain in the epigastrium. During the examination this body slipped from under the finger into the fold on the left side, but was easily pushed back into its former situation in the groin. The next day, however, while the patient was standing, it slipped again into the fold, where it became inflamed, and where, on the following day, it presented all the features observable on the opposite side. In the light of this examination, the following additional points in the patient's history were with some difficulty obtained.

For a month or two after marriage suffered from dyspareunia; after that time this symptom disappeared. During coitus has a well-marked sexual orgasm, preceded by turgescence of the penis, attended at its height by an ejaculation, and followed by a sense of lassitude. On one occasion, after a six weeks' absence of the husband, had an orgasm and ejaculation during sleep.

A more minute physical examination was determined upon, but the patient, on account of a quarrel with another in the same ward, insisted upon leaving the hospital, and consequently received his discharge.

In order to prove beyond controversy that the patient was masculine, it would have been necessary to have determined, with the aid of the microscope, that the fluid ejaculated during sexual excitement was a product of the male sexual apparatus, or that the testiform bodies referred to above were testes. It so happened that neither could be done.

There can be no doubt, however, that the patient was a male. The build, voice, absence of uterus, entire absence of any attempt at menstruation, and the presence of organs which could scarcely be other than testes, make this evident.

A hasty examination seemed to reveal the presence of a vagina and labia majora, but the pseudo-vagina was rather a hiatus than any organ in particular, and the arrest of fetal development which occasioned this absence of tissue in place of the male perineum had also given the appearance of labia majora to the two halves of the scrotum, which normally are united in the median line; this fact was made further apparent by the presence in each apparent labium of what was, without doubt, a testis.

Yet, singularly enough, this individual lived happily with a husband for five years, neither of them being aware of his sex, and showed an almost womanly instinct in adopting an infant, and in having it constantly in his society.

In an article on Hermaphrodisism, the late Sir James Y. Simpson has quoted among others a case very similar to the above.



## Progress of Medical Science.

**PILOCARPIA.**—At the first stated meeting of the Therapeutical Society of New York, Dr. A. Jacobi read a paper on the alkaloid of pilocarpus jaborandi, based on over sixty carefully observed administrations of the drug. The dose was one-third of a grain, given hypodermically—a solution in water, one to fifty, being used. Its principal laurels will be reaped in the desquamative nephritis of scarlatina, in the parenchymatous nephritis of diphtheria, and in acute and chronic nephritis generally. There is no doubt but that a complete diaphoretic effect is, with rare exceptions, obtained with more regularity by this, than by any other diaphoretic, even the hot pack. Sufficient doses appear to affect all the integuments, both those covered with cylindrical and pavement epithelium. Rosenkranz and Froumüller gave one grain, and this quantity may be required in pleural, peritoneal, and pericardial effusions, perhaps in oedema glottidis; but, as collapse has been observed, large doses should be given carefully. One of the principal effects of the drug is the lowering of arterial pressure, as demonstrated by the experiments of Kahler and Loyka. These observers consider the administration to be contra-indicated in valvular disease of the heart, especially where no compensation has taken place. These theoretical conclusions, however, do not fully correspond with experience, and will, therefore, have to be re-examined.

**USE OF THE CHLORIDE OF POTASSIUM IN EPILEPSY.**—At the second stated meeting of the Therapeutical Society of New York, Dr. E. C. Seguin read a paper on the use of chloride of potassium in epilepsy. He was led to experiment with this drug by the assertion of Prof. Binz, who considered the sedative effects of bromide of potassium to be due to the potassium, and who suggested the use of the chloride as containing a greater proportion of the mineral. Dr. Seguin's conclusions, based upon a large experience, are:

1. That chloride of potassium is not efficacious in the treatment of epilepsy.

2. That the bromides are positively useful in reducing the number and severity of epileptic attacks.

Observations have also been made upon a mixture of chloral and the bromides, and the following deductions drawn:

1. The epileptic attacks are warded off quite as well by this as by bromides alone.

2. The reflex power of the throat has been abolished quite as well as by the ordinary bromic solution.

3. There has been remarkable immunity from the bad effects of the bromides, more especially those which manifest themselves in the psychic sphere.

4. No really bad effect resulting from this mixture has been noticed. A more extensive trial of this combination in epilepsy is recommended.

**CONTRACTION OF THE PALMAR FASCIA.**—Dr. Baum, of Dantzic, reports two cases of the affection to which the above name was given by Dupuytren, which were cured by means of Busch's operation (see MEDICAL RECORD, No. 318). In both of the cases the wound healed rapidly, without reaction, and the functional result was perfect. Dr. Baum believes that the deformity in these cases of contracted finger is due to an affection of the skin and not of the fascia. He has found by numerous experiments on the normal hand, that retraction of the palmar fascia has but little

effect in preventing extension of the fingers, while an equal retraction of the skin will absolutely prevent such extension. He has been unable to find in preparations of normal fingers the connective-tissue bridges depicted by Goyrand in v. Pitha's "Krankheiten der Extremitäten," and regards them as pathological growths, developed, not from the fascia, but from the skin, as the result of chronic inflammatory processes excited by persistent pressure. In the palm of the hand, it is true, numerous connecting bands run between the skin and the fascia, and hence it is difficult to decide to which of the two strata any thickened bands belong in this situation. In a few well-authenticated cases of contracture of the thumb, however, the palmar aponeurosis was not implicated, and as in these cases we are forced to admit that the cause of the contracture was situated in the skin, it is fair to conclude that in the hollow of the hand also the cutis is the part affected. Dr. Baum attaches little importance to the case described by Richer (see RECORD, No. 350), as he believes that a more careful study would have shown that the skin was not really normal. He claims that Busch's operation itself furnishes an argument that the cutis is the part affected. The triangular flap of skin raised in the operation retracts to such an extent when the finger is extended, that it can no longer be brought back to its original position, an evident proof that the skin is shrunk. Both of Baum's cases recovered with perfect fingers, although no orthopaedic treatment to secure extension was subsequently employed, and Madelung's case was also successful, although the patient withdrew from observation soon after the operation.—*Centralblatt für Chir.*, March 2, 1878.

**A CASE OF MELÆNA VERA NEONATORUM.**—Dr. Wiggert, of Liegnitz, reports a case of this rare disease, which began twelve days after birth. The mother was a delicate, phthisical woman, with a tendency to hemorrhages; she was unable to nurse the child. The blood was vomited and passed per anum, but there was no hemorrhage from the mouth, nose or throat. Death took place on the eighth day from broncho-pneumonia. An autopsy could not be obtained. This case is remarkable from the fact that it did not develop until twelve days after birth. Of the forty cases tabulated by Silberman (medical literature only contains forty-two recorded cases of the affection), the disease appeared in thirty-four during the first three days of life, and in all of them during the first eight days. Silberman ascribes melæna vera to the following causes:

1. To ulcerative processes in the digestive tract, caused by embolism, the emboli originating in the vena umbilicalis, according to Landau.

2. To ulcers caused by extravasation of blood into mucous membrane of the digestive canal, the extravasation itself being caused by obstructed respiration.

3. To anomalies in the structure of the vascular walls, in connection with the increase of the blood-pressure in the left ventricle and the entire aortic system that takes place immediately after birth.

4. To an obstruction of the venous circulation, or capillary hemorrhages, which may be caused by vomiting, enlarged spleen, suspension of respiration, or atelectasis pulmonum.

The lack of an autopsy renders it impossible to decide positively what was the anatomical change at the bottom of Wiggert's case, but the history of the case and the condition of the mother render it probable that the melæna was symptomatic.—*Allg. Med. Cent. Zeit.*, March 2, 1878.

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## EXPERT TESTIMONY.

THE recent trial in Jersey City for wife poisoning naturally engrossed a great deal of the attention of the public. The medical profession also has had reason to be interested, especially in the expert testimony which was offered on either side to establish the fact whether or no antimony had been administered to the supposed victim. At first the case appeared to be a very clear one, and it was difficult to understand how the defence could counteract the weight of evidence against the prisoner. It soon became apparent, however, that the most promising line of argument against the prosecution was the initiation of a quarrel between the experts, and a consequent muddling of the real points at issue. Altogether, the proceeding illustrated, in a very forcible manner, the necessity for some change in the manner and method of offering expert testimony. We do not pretend to pass judgment upon the absolute value of the testimony of either side; it is enough to say that each was right so far as the pure facts were concerned, and yet, one is flatly contradicted by the other as to results. Both theories, the one for the prosecution, that of poisoning by antimony, and the one for the defence, that of a gouty affection of the stomach, were explainable by the symptoms from which the patient was said to have suffered. It was quite possible, by some of the tests employed by the prosecution, to discover antimony even in small quantities, and quite impossible when those tests were not employed, to be sure that antimony was not present. It was also possible that antimony existed at one time in the urine and not at another. Further, the amount of tolerance of the poison differs so much in different individuals and under different circumstances that almost anything can be proved with regard to it. So far as these facts could create any doubts in favor of the prisoner, he was legally entitled to their benefit. They were sufficient of themselves to give the defence the advantage

without inviting an issue between the two principal experts.

And here, while we deplore the circumstance, we take occasion to point the moral. There is, in a word, too much one-sidedness in the whole matter. This fact was quite apparent in the recent trial. Instead of being mere exponents of the plain truth, the impression is almost irresistible, that each expert was retained to support his side of the case at all hazards. This may be perfectly proper from a legal, but highly improper from a scientific standpoint. The fact that it is a custom is no argument in its favor. It is well known that there are medical men in this and other cities who can be bought to testify as experts whichever way their attorneys may dictate. Aside from cheapening professional opinion and prostituting it to unworthy purposes, we maintain that these experts exceed their privileges, are more like advocates than witnesses, and that their opinions are practically valueless because naturally biased.

Pet theories, personal pride, professional conceit, and all selfish motives of appearing to advantage before a jury should be subservient to the single purpose of exposing the "truth, the whole truth, and nothing but the truth." The accomplishment of the latter can hardly be guaranteed so long as such experts are paid by either side, and this brings us naturally to the point of suggesting a remedy. The latter can, we think, be found in the selection by the court of a commission of experts which shall give testimony for either side when called, and who shall be looked upon more as an advisory than as a prosecuting or defending element in the case. The experts would then have a single motive for discharging a simple duty, would have no reason to quarrel over the value of particular methods of investigation to champion theories, or lend themselves to insinuations as to the professional standing of each other. The responsibilities of all such issues belong to the attorneys, and may safely be left with them. In the eyes of the law they can interpret the facts as they may desire, but the true business of expert testimony is to present such facts above the suspicion of any bias whatever.

If some such provision for expert testimony could be made, it is not difficult to understand how much substantial benefit would grow out of it. The court could act more intelligently, the profession could appear to better advantage, real experts would come to the front, the jury would be better able to grasp the salient points in a given case, and there would be no occasion for pitting one professional man against another, or of purposely destroying the real value of the testimony by artful cross-examination or legal quibbling over side issues.

## COLOR-BLINDNESS.

THE reliable statistics which have been collected in regard to the prevalence of color-blindness, strongly



confirm the assertions of those who have for years past urged upon the marine and railway authorities the necessity of a full recognition of the danger of permitting those having this defective vision to exercise duties involving the interpretation of colored signals. There appears to be little difference of opinion among scientists in regard to the manner in which color-blindness develops itself. A large proportion cannot distinguish red color; next comes those who are green-blind, and lastly a few who are violet-blind. The difficulty appears to be that whereas the normal eye reduces its color-sensations to three, and analyzes white light into three elements, the color-blind eye reduces its color sensation to two, and analyzes white light into two elements. Thus if a person is red-blind, he cannot distinguish that color from green; or, if blue-violet blind, that color from yellow; or, if green-blind, that color from red.

To estimate the public importance of this question, it must be remembered that the color-blind individual may be the engineer of a train, running nearly a mile a minute to make up time, and that the passengers' lives, not to speak of their property, are dependent upon his knowledge whether a switch is open or shut, by his instantaneously distinguishing between a red and a green light. This example may be sufficient to rouse the community to a sense of the danger which exists from this curious defect of vision, but we would also refer to the fact that pilots and officers of ships often hold the lives of hundreds of persons in the balance, on their power of immediately determining whether a light ahead is green or red.

We therefore are happy to second the efforts of those who are now urgently recommending railroad managers and the marine service to make such regulations that all employees shall give satisfactory evidence that they are free from the defect of color-blindness; and to those who have authority to promote such results so important for the public safety, we commend a pamphlet recently written by Dr. B. Joy Jeffries (Harvard), who has carefully brought together the leading facts bearing on this question, and supplemented them with interesting and valuable statistics.

Dr. Jeffries very properly recommends that all candidates for positions, requiring the use of normal color perceptions, should be examined by an expert. Many of the color-blind are aware of their defect, and for the purpose of maintaining their positions, educate themselves to conceal the fact from others; they learn the names of colors, and by the help of outward signs, with a keen perception of gradations of light and shade, they supply their want of sensibility by the exercise of judgment. Therefore, in testing one who is color-blind, we must take away the chances of employing any of those outward characteristics which he is wont to make use of according to long experience. A remarkable case in point, which occurs to us at this moment, is that of a Mr. W. Butcher, who was

put early in life to the carpet trade, and shortly after discovered that he was color-blind. By close observation he made himself acquainted with the proper names of color, and thus kept the defect from those about him. By educating his eye to the peculiar warmth imparted, when all the colors in carpets were said to harmonize, he was enabled to raise himself to the position of salesman in a large house of business. As a matter of fact he could not distinguish reds and scarlets from greens and browns, orange and yellow he could select with ease. This case ultimately ended in *white atrophy*—that is, the blood supply to the optic nerve and retina was cut off, and he is now quite blind. It will be thus seen that the mere test of naming colors cannot always be relied on, and that a more thorough and systematic examination is necessary.

Dr. Jeffries concludes that *one person in fifty* is color-blind in some degree, and suggests that *one in twenty* may be nearer the mark; an examination of other authorities rather confirm us in the opinion that the latter figures of Dr. Jeffries are the most correct. Dr. Wilson examined 1,154 persons at Edinburgh and found 1 in 55 confounded red with green; 1 in 60 confounded brown with green; 1 in 46 confounded blue with green; hence *one in nearly every eighteen* had this imperfection.

We have here called attention to the large percentage of color-blindness that exists, the public danger that is ever present in consequence, and the remedy necessary to mitigate the evil. Past experience affords us small hope of relief without special Legislative enactments, we therefore trust that, during the next meeting of Congress, a law shall be passed compelling all railroad corporations to examine their employees, and test them for color-blindness by an expert competent to detect it. The same examination should be carried out amongst pilots and masters of ships. These latter should also be especially instructed how to detect color-blindness among the personnel of their command.

#### THERAPEUTICAL COMMITTEES IN STATE SOCIETIES.

THE practice of reporting upon questions of therapeutics, as it prevails in the meetings of the Medical Society of New Jersey, is one which deserves imitation by other similar organizations. As will be gathered by a perusal of our report of this Society in another column, the plan is to obtain all the possible information upon the action of remedies, the prevalence and character of epidemics, etc., and condense the same into some general conclusions. Although the latter are only to a limited extent of value, they form the groundwork of observation which is of the greatest utility to the general working practitioners.

#### BODY-SNATCHING.

It is exceedingly unfortunate that a recent case of body-snatching in Cincinnati should have gained such

a wide notoriety, and should have been the occasion of so much newspaper discussion. Viewed even from the standpoint which might be assumed by an enthusiastic and adventurous student of anatomy, it was an entirely unnecessary and stupid proceeding. It is just such ill-considered actions as these that bring disrepute upon the profession at large, and which tend to prejudice the public against the best directed efforts for scientific advancement. In regard to the matter of dissection, the law has made very generous concessions to scientific medicine, and anything which would tend, as in the instance before us, to jeopardize a good understanding, deserves the severest rebuke. The subject is one the contemplation of which is always repugnant to the ordinary mind, and the less it is discussed the better for those who are interested in the permanency of the present laws. It is true in some of the smaller colleges anatomical material is very difficult to obtain and is very expensive, but that is no excuse for robbing neighboring graves or of running any similar risk.

#### THE PENNSYLVANIA STATE SOCIETY.

THE Pennsylvania State Medical Society was largely attended, and many important measures were adopted. Among the latter may be mentioned those referring to preliminary education and the study of medicine. Our satisfaction at the stand taken is not, however, disassociated with the misgiving that the resolutions may after all become a dead letter. Far from us be it to prejudge the result, but we are only governed in our conclusions by the experience of other organizations in which similar rules have been adopted. It has been found that such regulations would work very well in small towns and sparsely settled districts, but in our medical centres they are almost of necessity practically ignored. And then the medical colleges themselves give not the slightest heed to such requirements. But we are willing to await the results of the experiment. The adoption of the metric system by formal vote is a step in the right direction, as is also the recommendation for the appointment of female physicians in insane asylums.

#### VESICO-VAGINAL FISTULA AND CALCULUS IN VAGINA.

—Dr. W. L. Kelsey, of Willington, Ct., writes: M. Storrs, M.D., of Hartford, Ct., operated in April, 1876, for vesico-vaginal fistula upon a lady in this town. She has been perfectly free from urinary trouble since then. About the first of last March she came to me complaining of leucorrhœa; upon examination a calculus was found in the vagina; it measured one and one-half inches in length, about an inch in width, and an inch in thickness. It was formed around the cicatrix, and was concave anteriorly. The line of cicatrix was plainly seen through the centre, and the depressions made by the sutures. It is a perfect cast of the anterior wall of the vagina. There is no leakage from the bladder, as water was injected in April, 1878, and none came through. She and her father have both been treated for vesical calculus.

## Reports of Societies.

### MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, May 27, 1878.*

Dr. J. C. PETERS, PRESIDENT, IN THE CHAIR.

#### COMMITMENT OF THE INSANE—THE DICKIE CASE.

Dr. CHARLES H. NICHOLS, Superintendent of the Bloomingdale Insane Asylum, read a paper, in which he gave a detailed history of the case of Miss Susan Dickie, who, in accordance with the verdict of a jury, was removed from that institution after having been confined as a lunatic more than six years. In discussing her mental condition Dr. Nichols reached the conclusion that while Miss Dickie was insane an element of imbecility ran through the entire history, and he was inclined to the opinion that it was the result of "natural weakness and supervening disease." The evidence of insanity, founded upon expert authority, was then reviewed. There were thirteen witnesses; of those eleven were of the opinion that she was insane, and two that she was sane. Dr. Nichols believed that the finding of the jury was directly against the preponderating weight of testimony; that a jury of non-professional men were entirely incompetent to judge correctly in such cases; that the statements made by Drs. Hammond and Clymer, to the effect that attendants upon the insane were particularly liable to become insane, were untrue and fallacious; that the association of insane persons, under proper classification, was beneficial; and that the influence of association with the insane was not unfavorable.

The paper was accepted by the Society, and being open to discussion,

Dr. EDWARD BRADLEY, as one of the commissioners in the Dickie case, proceeded to answer some of the statements made by Dr. Nichols. The evidence in the case was somewhat extensively reviewed, and special symptoms were commented upon at some length. The father stated that Miss Dickie, since her removal from the asylum, had not had a delusion, an illusion, or an hallucination; that she purchased her own clothes, furnished and cared for her own rooms, and was economical with her money, and cleanly in her habits; that she had no guardian, but managed her own affairs, simply being guided to a certain extent by the advice of her friends.

Dr. JAMES W. RANNEY referred to the family history of Miss Dickie, to the relation which he had sustained to the case, and believed her to be just what he stated in his testimony before the Court—namely, a woman small in stature and in intellect, but not a lunatic.

There being no further business, the Society adjourned.

REMEDY FOR OXYURUS VERMICULARES.—M. Morelli has found hydrate of chloral efficacious against the oxyuris vermicularis. He prescribes it by enema, his formula being: Chloral hydrat., 3 i.; glycerinæ, 3 xv. —*London Medical*, May 5th.

[N. B.—A drachm of chloral to 3 xv. seems a heavy dose, but it reads so in the French.]



# MEDICAL SOCIETY OF THE STATE OF NEW JERSEY.

*One Hundred and Twelfth Annual Meeting, at Spring Lake, N. J., May 28 and 29, 1878.*

(Special report for THE MEDICAL RECORD.)

DR. H. R. BALDWIN, OF NEW BRUNSWICK, N. J.,  
PRESIDENT, IN THE CHAIR.

FIRST DAY, TUESDAY, MAY 28TH.

THIS Society held its Annual Meeting in the Monmouth House, at Spring Lake, on Tuesday and Wednesday, May 28th and 29th. The President, Dr. H. R. Baldwin, presided. All the other officers and a full delegation from all the district medical societies in the State were present, as was also a large number of fellow and honorary members. Dr. Crandal, of the Medical Society of New York, was the only delegate present from corresponding societies.

After the reception of the report of the Committee on Organization and the transaction of regular routine business, the remainder of the evening was devoted to the reading of the Annual Address of the President, which was an elaborate paper on Contagious Diseases and Suggestions for their Prevention.

SECOND DAY, WEDNESDAY, MAY 29TH.

The Society reassembled at nine o'clock, Wednesday morning.

The Chairman, Dr. Wickes, read the report of the Standing Committee.

The health of the State at large had not been so good as shown by the report of last year, the prevailing diseases being the malarial and exanthematic fevers, with diphtheria, typhoid fever, and dysentery as epidemics in various parts of the State; with these are reported the usual number of the diseases of the seasons.

## THE THERAPEUTICS OF DISEASE—AN INTERESTING SUMMARY.

In noticing the lessons afforded by the reports upon the therapeutics of disease, we find that in an endemic of dysentery in Burlington County the ipecacuanha treatment was practised, and in *all* the cases successfully. In the same county the eucalyptus globulus arrested intermittent fevers which would not yield to the preparations of bark. It was also used successfully by one practitioner as a dressing in offensive ulcers, or any offensive discharges.

The Reporter for Bergen commends cocoa-butter by inunction for allaying fever-heat and stimulating the capillaries, seeming to protect them from cold. The mouths of the pores are not occluded as by oil or grease. He uses it freely in scarlatina every three or four hours during the continuance of the fever. In the treatment of malarial affections an observer in Bergen relies almost entirely upon cinchonidia sulph. as equal, in its influence on the disease, to quinine. He gives fifteen grains of the former where he would administer ten grains of the latter, and, when given in the form of a pill, he believes that it does not produce any more nausea than quinine. In his own case he found that, while taking it in large doses, it produced feelings of great depression, with undue palpitation of the heart. In dysentery the same report recommends injections of nitrate of silver, ten grains to the ounce, in infants as well as adults. In one case of dysentery, in a child of seven years, the intestine could be distinctly felt distended with fecal matter; pain almost constant, and the abdomen was exquisitely tender.

The application of a blister over the lower half of the abdomen was followed by the largest discharge the doctor had ever seen in a child of that age.

In the treatment of facial erysipelas the reporter confidently recommends the application of lard, applied with a brush or swab. The lard should be melted sufficiently for its application, and the parts smeared and covered with cotton wool; the process to be repeated every ten or more hours, according to the severity of the symptoms. In Cumberland County salicin has been used in rheumatic affections, with the best results, in some cases after the failure of other remedies. Cinchonidia sulphate has been used in the place of quinine satisfactorily as a tonic, febrifuge, and antiperiodic. In the treatment of diphtheria, salicylic acid, combined with equal proportions of quinine, has been used with excellent results. In Morris County the cheaper alkaloids of cinchona have proved as efficacious as quinine in arresting the paroxysms of malarial diseases. The use of jaborandi is recommended by one observer. He says: "Its sialogogue and sudorific properties in the treatment of acute and chronic Bright's disease, or in any morbid condition in which the secretion of the skin requires stimulating, commends it as especially desirable; I rely upon it as infinitely superior to any other remedy of its class."

The Committee proposed two questions for responses from the Reporters:

1st. Is consumption contagious?

2d. What is the proper alimentation of infants?

To the first question there were three classes of respondents.

1st. Those who think that it is contagious. These numbered two or three.

2d. A few who believe that it may be contagious.

3d. Those who do not regard it as contagious, and who make up the great majority of the profession.

Answers to the second question differed with the residence of the physician—the county and city manifesting each its peculiar needs. The mother's milk is generally conceded to be the best for the infant. But, even when this is abundant, it may be disadvantageous for the individual living on it, and a substitute be necessary. Country practitioners recommend cow's milk as the best substitute, while many in cities and towns speak highly of condensed milk. Of the preparations so various and so highly commended by those who put them on the market, the Imperial Granum seems to hold the first place in the estimation of medical observers. All agree in condemning the use of nursing-tubes as unclean even with the best of care.

The following gentlemen died during the past year, on the dates mentioned:

Stillman E. Arms, Elizabeth, æt. 73, July 10, 1877.

Thomas F. Cullen, Camden, æt. 56, Nov. 21, 1877.

Charles Hasbrouck, Hackensack, æt. 59, Nov. 25, 1877.

James B. Coleman, Trenton, æt. 71, Dec. 19, 1877.

John H. Philips, Beverly, æt. 64, March 1, 1878.

John C. Sutphin, Plainfield, April 13, 1878.

Charles Laird, Manasquan, æt. 29.

The report of the Committee on the Early Annals of New Jersey Medicine, which contained memorial notices of over three hundred physicians, was received and referred to the Committee on Publication.

The Committee on Alcohol as a Medicine reported by its chairman, Dr. Ryerson. The committee was continued, and increased by the addition of two members, Drs. Parrish and Lilly, and requested to continue the prosecution of the subject.

## OPIMUM INEBRIETY.

DR. MATTISON, a former resident of the State, being present, by invitation, read a very practical and interesting paper on Opium Inebriety. The paper will be published with the Transactions of the Society.

DR. DORCHESTER, of Newark, read a very exhaustive and instructive paper on Observations on Glucosuria.

DR. DESHLER, of Hightstown, also read an interesting paper, the subject of which was "The Medical Profession and the Public Health."

For the want of time, a paper by Dr. Ryerson, of Newton, on Rectification of Abnormal Fetal Positions was received without being read, and referred to Committee on Publication.

Prof. Lewis A. Sayre, M.D., of New York, was elected an Honorary Member.

It was voted that the annual assessment for the members of the district societies be two dollars per capita.

Dr. H. G. Taylor, of Camden, was appointed essayist for the next annual meeting.

## OFFICERS ELECT.

The following were elected as the officers for the ensuing year: *President*, Dr. John S. Cook; *Vice-Presidents*, Drs. A. W. Rogers, A. N. Dougherty, and L. W. Oakley; *Corresponding Secretary*, Wm. Elmer, Jr.; *Recording Secretary*, Wm. Pierson, Jr.; *Treasurer*, W. W. L. Phillips; *Standing Committee*, S. Wickes, S. Lilly, and I. L. Bodine.

*Delegates to American Medical Association* for next year: Drs. S. Lilly, C. I. Kip, H. A. Hopper, D. M'Lean Forman, H. W. Elmer, D. Warman, I. E. Arrowsmith, C. H. Voorhees, R. L. Dishbrow, A. W. Rogers, F. W. Owen, I. W. Snowden, G. W. Terriberry, C. W. Dunham, Lloyd Wilbur, C. Shepard.

*Delegates to Pennsylvania*: G. H. Tanson, H. G. Taylor, Edgar Holden. *Delegates to New York*: T. J. Thomason, I. L. Bodine, I. W. Hunt. *Delegates to Connecticut*: D. W. Silvers, F. Gaunt, A. Clendenin. *Delegates to Rhode Island*: S. C. Thornton, C. Shepard, M. Abel. *Delegates to Massachusetts*: E. M. Hunt, C. V. Gorden, John W. Ward. *Delegates to Maine*: F. Wilmarth, Wm. Elmer.

The Society adjourned to meet next year at the Palisade House, Englewood.

## MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

*Annual Meeting at Pittsburg, Penn., May 29th, 30th, and 31st.*

(Special report for THE MEDICAL RECORD.)

DR. D. HAYES AGNEW, OF PHILADELPHIA, PRESIDENT, IN THE CHAIR.

### FIRST DAY—WEDNESDAY, MAY 29TH.

The Medical Society of the State of Pennsylvania assembled at Liberty Hall in the city of Pittsburg, on Wednesday afternoon, May 29th, at three o'clock. The meeting was called to order by Dr. B. B. Mowry, of Allegheny, the retiring President. Prayer was offered by the Rev. Dr. FELTON, of Pittsburg. The President elect, Prof. D. HAYES AGNEW, of Philadelphia, was then introduced and took the chair.

T. I. GALLAHER, of the Committee of Arrangements, introduced Dr. CALVIN B. KING, of Allegheny, who delivered the address of welcome. The speaker

welcomed the delegates to the "Second City of the Commonwealth, the Birmingham of America." After alluding to the needs of a higher standard of medical education, and referring to the project for a State Board of Health, he closed with an eloquent reference to the many eminent members of the profession in and near Pittsburg.

The Committee on credentials then reported a list of delegates who were accepted as properly accredited.

Dr. WOODBRIDGE, of the State Medical Society of Ohio was invited to the platform and introduced.

## PAPERS READ.

Reports of delegates to other societies were then received from Jos. G. Richardson, M.D., of Philadelphia, delegate to the New York State Society, and then from Dr. B. Gillett, delegate to the same body at a previous session.

S. W. GUOSS, M.D., read a paper on the "Treatment of Venereal Diseases." Dr. J. T. CARPENTER, of Pottsville, read a paper on "The Local Origin of Constitutional Diseases." This paper was discussed at some length by Dr. Wm. PETER, of Philadelphia.

Dr. Wm. ASDALE, of Pittsburg, exhibited a remarkable case of tolerance of the presence of foreign bodies by the brain. Dr. J. B. MURDOCK, of the same city, read a paper on "Observations on a Rare Form of Dislocation of the Hip." He also gave the history of the very extraordinary case which had formed the subject of his paper.

Dr. DYER, of Pittsburg, then read a paper on "Sympathetic Ophthalmia." This paper, with the others above mentioned, was referred to the Committee on Publication.

A report from the Commission on Form of Revision of the United States Pharmacopoeia, was likewise referred, as was also a paper from Dr. Seguin, of New York, on "Uniformity in Physic."

The Society then adjourned until 8 p.m.

## PRESIDENT'S ADDRESS.

DR. LAWRENCE TURNBULL, of Philadelphia, Vice-president, presiding, the President, Dr. Agnew, delivered an address on "Errors of Diagnosis." He spoke of the difficulty of getting at the real nature of things. Then, after illustrating the danger arising from the neglect of proper tests in the investigation of disease, the speaker referred to errors of diagnosis which arise from visual defects. The evil consequences resulting from a slight neglect may also be seen in an omission to uncover the parts which are to be the subject of examination. Prof. Agnew then gave a number of examples, showing that a large proportion of errors might be placed to the account of ignorance, and then made some observations upon the fact that errors of diagnosis not unfrequently originate perplexing litigations. When the President had concluded his address, the Society adjourned for the day.

### SECOND DAY—THURSDAY, MAY 30TH.

The Society met at 9 a.m., Dr. Agnew presiding. First in order was the reception of reports from county societies. Then followed discussion of resolutions on "Medical Education," submitted by a committee appointed to consider the subject. The resolutions were as follows:

#### PRELIMINARY EDUCATION AND MEDICAL STUDY.

*Resolved*, That every member of a County Medical Society organized, or which may hereafter be organized, under the regulation of the Medical Society of



the State of Pennsylvania, before receiving any person as a student of medicine, shall require him to enter into a contract to pursue his studies for a period of not less than three years; and it shall be the duty of his preceptor to present him with a certificate, countersigned by the secretary of the local society, setting forth the facts as above stated.

*Resolved*, That it shall be the duty of all members of the profession holding allegiance to the Medical Society of the State of Pennsylvania to recommend their students to attend only such medical colleges as rigidly enforce the full three years' course of study.

*Resolved*, That all County Societies existing under the regulations of this Society, or which may be hereafter organized, shall, at the next meeting, elect officers, and annually thereafter be required to elect three members, to be called Medical Examiners, whose duty it shall be to examine all applicants for admission as students of medicine under the tuition of members of this Society; and said committee shall withhold their certificate from any applicant unless he is of good moral character, and possesses a good English education and a sufficient knowledge of Greek and Latin to enable him to pursue his studies with advantage. And no member of any County Society shall receive any person as a student of medicine unless he present a favorable certificate from the Committee.

The general conviction of the delegates was that the preliminary education of students had not been sufficiently considered by the profession. Dr. Pollock said that the plan proposed had been in operation in Alleghany County for ten years, and had been found to work well.

DR. JAMES McCANN, of Pittsburg, offered an amendment to the first resolution extending the course of study from three to four years, and in support of it remarked that the number of students graduating each year is entirely too large. The effect of the amendment would be to decrease the number.

The amendment was defeated, and the resolution was then adopted. The Secretary, Dr. W. B. Atkinson, of Philadelphia, was directed to forward a copy of the resolutions to the Association of American Medical Colleges, which would meet in annual session at Buffalo the following week.

#### MEDICAL REGISTRATION IN PENNSYLVANIA.

DR. R. L. SIBBETT, of Carlisle, from the Committee on Medical Legislation, presented their report. Thus far registration of the doctors had not commenced in any part of the State, as required in Section 3 of the Act of Assembly of March, 1877, requiring members of the medical fraternity to register in Prothonotaries' offices their names; and the colleges from which they graduated. This failure to register is on account of the perspicuity of the section. Additional legislation having been deemed necessary, the Committee prepared and laid before the Legislature a memorial in which they recommend that the medical profession begin to register as soon as possible. No further effort will be necessary, as the Prothonotary, who is to receive a fee of \$1.00, will see that all practitioners register.

The report was accepted and adopted.

DR. S. D. RISLEY, of Philadelphia, gave a clinical history of 103 cases of iritis, treated at the University Hospital of Philadelphia. Dr. O. H. Allis, of the same city, lectured on Hernia, illustrating his points by crayon drawings. He advocated the early use of the knife in strangulated hernia. Dr. Shoemaker, of Philadelphia, delivered a very interesting address on

"Roseolæ." Prof. Wm. Goodell read a paper on "Obstetrics."

Dr. Toner, of Washington, was here announced by Dr. H. C. WOOD as an Ex-President of the American Medical Association, and on his motion was admitted to a seat on the platform. The Society then adjourned until 2.30 p.m.

#### OFFICERS ELECT.

When the Society reassembled in the afternoon, the first business was the reading of the report of the Committee on Nominations, etc. The officers selected for the current year were as follows: President, Dr. James L. Stewart, of Erie; Vice-Presidents, J. T. Carpenter, Schuylkill; William Goodell, Philadelphia; A. M. Pollock, Pittsburg; Permanent Secretary, William B. Atkinson, Philadelphia; Recording Secretary, J. N. Kerlin, Delaware; Corresponding Secretary, O. H. Allis, Philadelphia; Treasurer, Benjamin Lee, Philadelphia.

The Committee on Publication is unchanged, with the exception that Dr. Kerlin is substituted for Dr. Coffee.

The delegates selected to attend the American Medical Association were eighteen in number. Among them were Drs. William Pepper and S. W. Gross, of Philadelphia.

The next place of meeting was fixed at Chester, Delaware County, Pennsylvania, on the last Wednesday of June, 1879.

#### THE METRIC SYSTEM IN PENNSYLVANIA.

DR. E. DYER, of Pittsburg, read a paper on the propriety of adoption by the medical profession of the metrical system, and offered the following resolution:

*Resolved*, That the Medical Society of the State of Pennsylvania, recognizing the advantages of the metric system from its universality, simplicity, and scientific character, does recommend the use of the same to the members of the Society, and urges them to familiarize themselves with it, and to advise their students to use it exclusively when they commence their medical career.

DR. GREEN offered as an amendment, "That in all communications made to the Society, in which reference is made to weights and measures, the metric system only shall be used." This was adopted.

DR. MURDOCK moved that the Society recommend the teaching of the metric system in the public schools.

#### MISCELLANEOUS PAPERS.

DR. A. H. HALBERSTADT, of Pittsburg, read a paper on "The Use of an Anæsthetic in Parturition;" Dr. C. K. MILLS, of Philadelphia, a paper on "Nervous Diseases;" Dr. JOHN S. DICKSON, of Pittsburg, "Notes on Two Cases of Ovariectomy."

DR. JOHN CURWEN, of the State Lunatic Asylum at Harrisburg, read a paper on the cure and treatment of the insane.

#### FEMALE ASSISTANT SUPERINTENDENTS IN INSANE ASYLUMS.

DR. HIRAM CORSON, in accordance with a resolution of the Society, made a report "On Female Assistant Superintendents in the Female Department of Insane Asylums," taking strong ground in their favor, and regarding them, when properly educated, as eminently fitted to take care of the insane of their sex.

Accompanying the report was a resolution, that a committee of seven be appointed by the President of the Society to memorialize the Legislature to enact laws, if any be needed, to authorize the employment, by managers of hospitals, under the control of the

State, of women medical superintendents for the female departments of said hospitals, and for hospitals to be erected for the accommodation of females.

The resolution was adopted.

#### INFLAMMATION OF BILE-DUCTS.

DR. WM. PEPPIER, read a paper on "Jaundice from Inflammation of the Bile-Ducts." These cases, he said, often occur in acute form, but even more frequently they assume a chronic form, when they present all the features of severe disturbance of the action of the liver. In both forms spells of hepatic colic are apt to occur. There is a close relationship between catarrh of the bile ducts and the formation of gall-stones. A number of illustrative cases were given. The mode of treatment includes a most rigid attention to diet, to dress, and to avoidance of exposure. He employs prolonged counter-irritation over the liver, the continued use of certain natural saline mineral waters, and the careful internal administration of the nitrate of silver in minute doses.

DR. BENJAMIN LEE, of Philadelphia, delivered an address on Hygiene.

DR. A. M. POLLOCK declined with thanks the position of Vice-President, for which the Committee had nominated him.

The Financial Report showed the receipts from all quarters as \$2,604 49; the expenditures at \$1,739 08.

DR. JAMES McCANN, of Pittsburgh, read a paper on "Clinical Observations on the Excision of the Joints, with Special Reference to the Elbow Joints."

The Society then adjourned.

In the evening a reception and supper was given to the delegates by the Allegheny County Medical Association, at Liberty Hall. The attendance was very large.

#### THIRD DAY—FRIDAY, MAY 31ST.

The Society met at 8 A.M., President Agnew in the chair.

#### EPILEPSY AND INSANITY.

DR. GREEN, of Easton, offered the following, which was adopted:

*Resolved*, That county societies be requested to report, during the present year, the proportional number of epileptics who, within their knowledge, become insane, and report to Dr. John Curwen, who is hereby appointed a committee to report on this subject to the State Medical Society.

#### MEDICAL LEGISLATION.

DR. W. B. ATKINSON, of Philadelphia, of the Committee on State Board of Health, reported that they presented to the State Legislature the bill to create a State Board of Health in Pennsylvania, together with an address on hygiene, but they regret to state that the bill was not considered in the Legislature. The Committee, however, express their belief that it will finally become a law.

DR. I. H. FISHBURNE offered the following:

*Whereas*, Physicians are frequently compelled to serve as witnesses in our courts of justice in cases involving medico-legal questions, in which their opinion as experts is required at the hands of the court; and

*Whereas*, There is no provision in the laws of Pennsylvania for the protection of physicians in their right to give or withhold a professional opinion while on the witness-stand, or for securing a just compensation for the same; therefore

*Resolved*, That the Pennsylvania State Medical So-

ciety be earnestly requested to take such action as they may deem expedient to bring this subject before the Legislature at Harrisburg, and to urge upon them the enactment of some law to protect the members of the medical profession from urgent and burdensome duties for which they receive no compensation in our criminal courts.

The following Committee on Addresses was appointed: Dr. Fleming on Medicine, Dr. Charles T. Hunter on Surgery, Professor Eilerslie Wallace on Obstetrics, Dr. R. A. Cleemann on Hygiene, and Dr. Reed on Mental Diseases.

Resolutions of regret upon the death of Dr. Wm. M. Wallace, of West Philadelphia, a former President of the Society, were adopted.

#### DISCIPLINE BY COUNTY SOCIETIES.

DR. A. B. BRUMBAUGH submitted the following, which was adopted:

*Resolved*, That the members of each County Medical Society are the only proper and reliable judges of the professional character and standing of medical men in their respective counties.

DR. AGNEW, the President, then introduced the new President, Dr. Stewart, to the Society. After a speech by the new President the Society adjourned to attend a reception at the Western Pennsylvania Hospital for the Insane, at Dixmont.

## Correspondence.

### RAPID LITHOTRITY, WITH EVACUATION.

TO THE EDITOR OF THE MEDICAL RECORD.

AN article by Dr. Keyes, in your last issue (May 18th), gives me occasion to refer to one or two misapprehensions which pervade his allusions to "Modern Lithotritry," as he is kind enough to call the new operation for stone.

In this article, which is devoted mainly to a description of the jaws of a lithotrite, the writer states that my lithotrite "must sometimes clog," because "it is made on the principle of Reliquet's." He is here doubly mistaken. In the first place, with regard to the fancied resemblance between the instruments: lithotrites are of two kinds, one fenestrated, the other with a solid floor. Reliquet's is fenestrated; mine is solid. In the second place, as an ascertained fact, my lithotrite does not impact, the male blade being furnished with alternate notches forming inclined planes by which the detritus is extruded right and left, except where a minute portion at the heel is driven through a slot by a long and effective spur. The latter, which reaches the outside, also serves to brace the heel of the male blade. Reliquet's non-impacting lithotrite is identical with the obsolete fenestrated *brisepierre*, with the addition of teeth in the opening below to insure pulverization. Dr. Keyes proposes to remove these added teeth, and return to the *brisepierre à mors finétre (porte à faux)* of Charrière. (*Nouveau Dict. de Méd. et de Chir.*, t. 20, Paris 1875, p. 667.) In fact, he goes back to the flattened jaws of the "slightly indented and fenestrated or open female blade" figured by Costello (*Cycloped. of Pract. Surgery*, vol. iii., pp. 50, 21, London, 1861), with a male blade small as in the usual lithotrite, to avoid



pinching the mucous membrane;\* in short, a common lithotrite with the floor removed.

I am gratified to find that the writer of the article endorses my statement (which is an important corollary of the new system) that "*in future it will be no longer essential to pulverize the fragments, but only to comminute them.*" This may be accomplished by either a fenestrated or a solid instrument. Any fenestrated lithotrite that reduces to the size of a small opening the fragments driven through it, enables them also to pass the evacuating tubes, the use of which characterizes the new method. But, although instruments of this class will doubtless do well enough with small stones, as does indeed the usual lithotrite, my objections to a fenestrated instrument, of which I considered and rejected several (including that proposed in your journal), are these:

1. Sharp fragments, while firmly engaged in the opening, or driven through it, are likely to injure the floor of the bladder. During a long operation, such as I have proposed, it is hardly possible to prevent the frequent contact of the floor of the bladder with the extremity of the instrument, which, instead of protecting the mucous membrane, as usual, by a rounded and polished surface, is then fortified with protruding splinters of calculus, always impinging upon the same region of the floor.

2. The sides lack the mutual support afforded by an uninterrupted floor of metal; and if made low enough to be readily accessible to fragments (which is important), are consequently liable to break, especially should the strain come on one of them. The strength of a fenestrated blade lies in the height of its sides, and is but partially compensated by their breadth—unless the latter is extreme, and the male blade narrow. If it be wide, the corresponding opening not only impairs strength, but delivers large fragments.

3. Now, although fragments pass the tubed urethra readily, dust and small debris pass more readily, and first. So that, when a fragment has been fortunately seized, the operator loses time if he declines to crush it, as happens when he drives it through a fenestrated blade, to be again seized. Although, by the new method, pulverization is no longer essential as before, our aim is still to accomplish a maximum disintegration at each closure of the jaws; and this is better done with a solid upper and lower jaw than after the fenestration of either of them. A non-impacting instrument is very desirable; but not at the sacrifice of efficient and rapid crushing, or the integrity of the mucous membrane.

I may add that, to prevent impaction, such a projection of the male blade below the female blade as Dr. Keyes has devised and emphasized for this purpose (a description of which indeed occupies a considerable portion of his paper) is quite unnecessary. It is sufficient that the blades of a fenestrated instrument occupy the same level at the outlet.

Again, the heel of the instrument figured in your journal resembles the segment of a circle. Such curved blades admit fragments, and crush them, at great disadvantage.

Blades should be

1. As straight,
2. Set at as nearly a right angle with the shaft,
3. As little rounded at the heel,

as is compatible with their introduction.

In my non-fenestrated lithotrite, the blades are

nearly straight, while the triangular notches deliver on alternate sides. This lateral action not only clears the jaws, but makes their hold very tenacious. It also secures to the blades the incidental advantage that they grind while they crush.

Dr. Keyes finds my instrument too large (or, as he says, "clumsy"). It is made large with a distinct object, viz., to break larger and harder stones than have been hitherto considered to be within the province of the lithotrite. It comminutes, with safety to the bladder, and without impaction, as no lithotrite hitherto devised has done. The new method of treatment is grounded in the fact that the normal urethra admits larger instruments, and is a readier road to the bladder than the lithotritist had hitherto recognized. The operator soon becomes not only accustomed to the use of a large lithotrite, but reluctantly foregoes the power it gives him, even when the stone is small. Collin has, however, made a second size.

While the power possessed by this lithotrite and the fact that it does not impact are its more important features, and especially adapt it to the requirements of the method now proposed, almost as useful is the change in its lock. I believe that this will be ultimately adopted by those not already educated to the old system, because it is based upon the readiest movements of the hand and wrist.

But a modification of the jaws and lock of the lithotrite is but an inconsiderable feature of the proposed new method. Rapid work is, indeed, thereby facilitated; and an empty instrument can be safely withdrawn as often as the operator likes, to relieve the bladder of what will come through the tubes, and so clear the way for more rapid crushing.

A far more important point to the lithotritist is the comparative harmlessness of long sittings, which was unsuspected, as I think, until the publication of my paper. When this was once under experiment, what was wanted was not so much an improvement of the existing crushing apparatus, as an efficient means of evacuation, capable of removing all the debris at one sitting. For this purpose, the large tubes criticised in your journal are absolutely indispensable. Their use is precisely what makes the new operation practicable, and is, with their manipulation, perhaps its chief innovation. The set of tubes described in my paper range from 27 to 31; but they can be procured of any smaller size, and should, of course, in any case, be adapted to the previously ascertained calibre of the urethra. It will, however, be found that the efficiency of the tubes diminishes very rapidly with their size, and that cases complicated by stricture, or by small meatus, will require an enlargement by which the introduction of a large tube may be made possible. In such a case as that reported, where the urethra only admitted a No. 20 instrument (French), and in which the writer of course found my largest tubes too large, I should prefer to increase the size of the passage, rather than to attempt extraction through the small calibres formerly in use, even though the tube were otherwise modified as I have recommended. With a normal urethra I do not believe that the tubes supplied by Tiemann will be found any too large.

The change proposed in the new procedure, and its advantages, will appear in a clearer light if we consider the limitations of the usual dilatory method explicitly acknowledged, quite recently, by both Sir Henry Thompson and Sir James Paget. These distinguished authorities gave their opinion that lithotrity should be restricted to stones requiring two or three, or at most three or four sittings, of two or three minutes each. Larger stones, in their opinion, do

\* The mucous membrane would be more secure if care were taken always to blunt, or round a little, the edge of the sole of the male blade.

better if cut, such adult lithotomy resulting, however, in a mortality of one in three. It should be added that while lithotomy was thus pronounced unsuccessful in such cases, all attempts at the immediate evacuation of debris had hitherto resulted in practical failure.

The new method both crushes and immediately evacuates by the urethra calculi exceeding in size the limits hitherto affixed to crushing alone. This is done under ether, in a sitting of one or two hours' duration, or even longer. So far, its results have been better than could have been anticipated—being sixteen or seventeen cases of complete evacuation, with but one death—against one in thirteen by the usual method. Several of these patients would have been, by accepted rules, subjected to lithotomy, and therefore to a risk equal to one death in three cases. I cannot but think that, with due care in its application, the method now proposed will be found to yield results at least as favorable as those before obtained.

The following are the chief points connected with the modified lithotomy:

1. The calculus, although not necessarily pulverized, is crushed as rapidly and completely as is practicable. The dust and fragments are immediately evacuated, and a serious source of irritation is thus removed.

2. This can be generally effected in a single operation.

3. This operation—performed of course under ether—may be, if necessary, of one or two hours' duration, or even longer.

4. The method applies to larger stones than have been hitherto considered to lie within the province of the lithotritist. It also applies to nuclei, phosphatic deposits, and foreign bodies.

5. Evacuation is best accomplished by a large tube, preferably straight—with a distal orifice, arranged to facilitate its introduction and, during suction, to repel the bladder-wall—and by an elastic exhausting bulb which acts partly as a syphon.

6. The best size for the tube is the largest the urethra will admit.

7. Such a tube is introduced with facility, if passed vertically as far as it will go towards the anus before changing its direction, and afterwards directed almost horizontally, and turned like a corkscrew through the triangular ligament.

8. A small meatus should be enlarged, or a stricture divulsed to allow the passage of a large tube.

9. Unless the bladder be small, a large and powerful lithotrite is better than a small one.

10. That this may have room for action, the escaping water should be replaced occasionally, by a tube inserted a few inches in the urethra by the side of the lithotrite.

11. To save time, and also to prevent undue distention of the vesical neck, a non-impacting lithotrite is desirable. The jaws of a non-fenestrated lithotrite will not impact if the male blade is furnished with alternate triangular notches to discharge the debris laterally, and also with a long thin spur at the heel fitted to a corresponding slot in the female blade—provided the floor of the female blade, especially at the heel, be raised nearly to a level with its rim. To repel the bladder the female blade should be longer, and a little wider, than is usual. It should have also low sides accessible to fragments; relying for strength less upon these, than upon a central ridge below the heel. In the male blade of such a lithotrite, the apex of the triangles should be a little blunted. Lastly, a non-fenestrated female blade protects the floor of the bladder during a long sitting. A fenestrated instrument directs sharp splinters against it.

12. In locking and unlocking a lithotrite repeatedly in a long operation, it takes less time and is easier to turn the right wrist, as in my instrument, than to displace the thumb of either hand in search of a button or a lever, as in previous instruments.

HENRY J. BIGELOW.

Boston, May 25th.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 26 to June 1, 1878.*

By direction of the Secretary of War, a Board, to consist of Surgeons E. P. VOLLUM, B. J. D. IRWIN, and Asst. Surgeon H. LIPPINCOTT, is ordered to meet at the U. S. Mil. Academy, West Point, on June 11th, to examine into the physical qualifications of the graduates and of the candidates for admission to the Academy. S. O. 116, A. G. O., May 29, 1878.

CROSKRITTE, H. M., Capt. and Asst. Surgeon. Granted leave of absence for two months. S. O. 112, A. G. O., May 24, 1878.

YEOMANS, A. A., Capt. and Asst. Surgeon. Upon abandonment of Fort Richardson, to move with detachment of 10th Infy. to Fort Griffin, Tex., and there take post. S. O. 106, Dept. of Texas, May 21, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 1, 1878.

| Week Ending      | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| May 25, 1878.... | 0             | 5              | 42             | 6                          | 44       | 49          | 0          |
| June 1, 1878.... | 0             | 6              | 69             | 3                          | 28       | 39          | 0          |

THE HEALTH BOARD AND THE NUISANCES.—At a special meeting of the Medical Society of the County of New York, Prof. C. F. Chandler, the President of the Health Board, made a long statement of the work accomplished by said Board, in which it appeared that there was a saving of 5,000 lives and a prevention of 130,000 cases of serious illness per year. He claimed that all the nuisances for which the Board had been indicted were either removed or in process of removal.

MAINE MEDICAL ASSOCIATION.—The twenty-sixth annual meeting of the Maine Medical Association will be held in Portland, Maine, Tuesday, Wednesday, and Thursday, June 11, 12, and 13, 1878, commencing at 10 30 A.M.

THE NEW HAMPSHIRE MEDICAL SOCIETY.—The eighty-eighth annual meeting of this society will be held at Concord, Tuesday and Wednesday, June 18th and 19th, at 11 A.M.

AMERICAN MEDICAL ASSOCIATION.—Our report of the meeting of the American Medical Association could not be prepared in time for the present issue, but it will appear in the next.



## Original Communications.

### THE RATIONAL TREATMENT OF STRICTURE OF THE URETHRA.

By SAMUEL W. GROSS, M.D.,

SURGEON TO THE JEFFERSON MEDICAL COLLEGE HOSPITAL AND TO THE PHILADELPHIA HOSPITAL.

WITH the view of obtaining a radical cure, or delaying as long as possible a return of the symptoms, I have long been convinced that the only rational treatment of organic stricture of the urethra is to restore that passage to its normal distensibility at the affected portion. Gradual dilatation, as ordinarily practised, is powerless to effect the object, since the process ceases with the insertion of the largest instrument that comfortably fills the meatus, which, it need scarcely be said, is many millimetres smaller in circumference than the canal behind it. My measurements, which differ very slightly from those of Dr. Weir and Dr. Otis, show that the average meatus is equal to 24 mm., or nearly one inch, in circumference; while the circumference of the spongy portion, which is itself narrower than the bulbous division, is equal to 32 mm., being a difference which is represented by a No. 3 English, or a No. 8 French catheter. If a stricture be seated in the spongy urethra, a No. 24 bougie cannot restore its normal distensibility or calibre, and it is to this fact that the unsatisfactory results of this mode of treatment are to be ascribed.

While it is true, the more particularly if the coarctation be soft and recent, and does not contain elastic fibres, that the symptoms will be palliated, it is equally true, even in strictures of large size, and these are the ones most commonly met with, that after the cessation, or even intermission, of instrumentation, the prominent symptoms are sure to recur. In these cases I have invariably found that the stricture was as clearly defined by the bulbous explorer as it was before the treatment was commenced, thereby affording convincing proof that little progress had been made towards permanent relief. Even after incision of the meatus and the employment of conical steel bougies up to the normal size of the urethra, as determined by previous measurement, I can conscientiously declare that I have never effected a cure, although many patients have been greatly benefited and rendered temporarily comfortable. Hence I only employ dilatation when, from the existence of contraindicating disease of other portions of the urinary apparatus, or from disinclination on the part of the patient to submit to operation, it is the only recourse at my command.

To restore the urethra to its normal calibre it becomes necessary to insert a piece of new, soft, pliant tissue between the divided sides of the cicatricial tissue upon which the narrowing of the passage depends. This may be accomplished, in the great majority of cases, either by divulsion or internal urethrotomy, or by a combination of both procedures, in accordance with the indications presented by each individual case. Previous to the performance of any operation, however, the experienced surgeon will remember that he has to deal with something more than a mere passive obstacle to the free passage of the urine or the introduction of an instrument. In every case there is associated with the contraction a subacute or chronic urethritis, which is a source of spasm and irritability, to the latter of which most of the reflected symptoms are due. Hence, in the rational treatment of this affec-

tion the indications are, first, to allay congestion, spasm, and tenderness, whereby the urethra will be placed in the best possible condition for operative interference; secondly, to bring the coarctation up to the normal calibre of that portion of the urethra in which it is seated; and, thirdly, to mitigate or prevent an attack of urethral fever.

I need not detain you with a consideration of the local and general measures calculated to fulfil the first and third indications, as you are perfectly familiar with them. Suffice it to say that upon their proper employment will depend, in great measure, a satisfactory result. In the event of the meatus being the seat of a stricture, or being much smaller than the rest of the urethra, it should be cut, as a preliminary measure, up to the size of the largest instrument that will be demanded in the subsequent management of the case. Another point—and its recognition is of great practical importance, not only in regard to the diagnosis, but also to the treatment—is to search for and remedy strictures seated in the anterior portion of the urethra before operating upon those situated posteriorly. I have found that when a coarctation is present with the first inch of the urethra, or at the meatus and in the navicular fossa, it not only gives rise to spasmodic stricture, but is, as a rule, associated with one or more organic contractions farther back. Thus my notes show that of 180 cases, representing 322 strictures, in 67, or more than one-third, was the trouble seated in that locality. Of these only 7 were solitary, 34 were double, 20 treble, 3 quadruple, 2 quintuple, and 1 was multiple. In other words, in 100 examples of organic stricture within the first inch of the urethra, in only 10 will it be found to be single, while in 50 an additional one will be detected; in 30 two more will be detected, and in 9 several more will be discovered. A knowledge of these facts will lead the surgeon to explore for additional strictures when one is seated at or near the meatus; and if he will bear in mind that coarctations in this locality are very liable to provoke spasm in the deeper portions of the urethra which may simulate an organic contraction, he will not only avoid an error in diagnosis, but also an error in treatment. For this reason, whenever it is possible, I always cut the anterior stricture before I attempt anything farther back.

After these preliminary measures and minor operations have received proper attention, the calibre of that portion of the urethra in which the stricture is seated is determined by the urethrometer of Dr. Weir, or with a somewhat similar instrument of my own device, which, however, possesses no advantages over the former except in being less costly, and, on that account, within the reach of the profession at large. Measurements taken after irritability and spasm have been relieved are far more reliable than when the distensibility of the urethra has been fixed, when the patient is first seen, since, at this time, the use of the urethrometer is liable to provoke spasmodic contraction, which may be mistaken for organic stricture.

With the view of inserting a splice in the contracted part, divulsion or internal incision may be resorted to. Of late years I have practised the former operation less frequently than the latter; not because I deem it unsafe, but because it is not always effectual. On three occasions I had the opportunity of inspecting the urethra of persons who had died after the procedure in the hands of other surgeons. In one instance the rents were so short that suitable splices could not have been inserted, and, in addition, there were oblique lacerations in the healthy portions of the passage. These appearances are exhibited in the sketch that I

made at the time. In the other two, although the tears were clean and long, there were submucous bands that had resisted the action of the divulsor. Both of these specimens were very similar to Fig. 27, p. 65, of Dr. Gouley's work on "Diseases of the Urinary Organs." In actual practice I have met with the same difficulty. Thus of 29 private cases, all of which recovered without a single accident, and in only two of which was there a chill, which occurred in patients who had not been subjected to preliminary treatment, in 8, or 27 per cent., the operation had to be supplemented by internal urethrotomy, with the view of cutting undivided bands. For these reasons I consider divulsion as being far inferior to urethrotomy; but when the symptoms are urgent, as in the event of retention of urine, or when the patient cannot spare the time for having the urethra sufficiently dilated to admit a cutting instrument, this much-abused procedure possesses undoubted merits, and is worthy of imitation, provided care be taken to search for unruptured bands and submit them to the knife.

Of the two modes of inserting a soft, pliable splice in the contracted part, and in the sound tissues in its immediate vicinity, I give decided preference to internal urethrotomy from behind forwards. As I have pointed out, in forcible rupture, short oblique rents are liable to be made in the healthy mucous membrane, which, after the healing process is completed, may form partial traumatic strictures. In internal urethrotomy, on the other hand, the contracted part can be divided with the utmost precision, while the sound portions of the urethra are free from injury.

The instrument which, from the simplicity of its construction, perfection of action, accurate definition of the stricture, and moderate cost, I prefer for retrograde division, is the one devised by myself three years ago. It is nothing more, as may be seen in the woodcut, Fig. 1, than a metallic exploratory bougie, the slender shaft being provided with a handle, and grooved for the reception of a steel rod, to one end of which is attached the blade, and to the other a button, through the retraction of which the former is thrown out of the under surface of the bulb, so that the incision may be made along the floor of the urethra. The extent to which the blade can be projected is regulated by a lateral screw near the handle. The length of the contrivance is eleven inches, of which three are taken up by the handle, button, and screw. In actual practice I have found two such instruments to be all that are required. In one, which is intended for strictures of moderate calibre, the bulb is equal to No. 15 of the French catheter scale; while in the other, the bulb corresponds with No. 23, which suffices to define coarctations of much larger size. In exceptional cases, still larger bulbs may be demanded.

To use the exploratory urethrotome, the stricture having been passed, and its posterior face having been accurately defined by the projecting shoulder of the bulb, the latter is carried at least half an inch towards the bladder—as the object is to cut, along with the coarctation, the sound tissues to that extent behind and in front of it—when the blade is protruded by sliding the button, and the parts divided, as the instrument is withdrawn, the penis being put upon the stretch to render the urethra tense. Should the

tissues be thick or resistant, the section may be materially aided by counter pressure with the fingers of the left hand along the median line. The bulb is then used as an explorer to detect any undivided bands, which, if discovered, should next be severed, since thorough section of all constricting bands is essential to success.

Up to the present time I have used this instrument in forty-six private cases, representing eighty-seven strictures; and I do not include in this number contractions seated within the first inch of the canal, which I divide with a bistoury or tenotome. All recovered; in one there was free hemorrhage, and in six there were rigors; but in two of these there had been no preparatory treatment, while in four the urethra and system had been brought into good condition, but the operation was practised under ether. These are the only cases in which I employed anæsthesia, and I believe that the urethral fever was due partly, if not entirely, to the depressing effects of the agent used, since not a single one of the remaining cases suffered in this way.

It will thus be seen that all of the seventy-five patients subjected to divulsion and internal incision got well; in only one was there embarrassing hemorrhage, while in eight there were chills, which occurred in persons who had either not been prepared for operation, or who were under the influence of ether. These good results I attribute to the care which I exercise in preparing the part and system for operative measures; and I am convinced that, if this precaution be observed, and the kidneys be healthy, little need be feared from divulsion or internal urethrotomy.

Such is a brief outline of the practice, which is essentially that of Dr. Otis, that I have heretofore resorted to for restoring the diseased urethra to its natural dimensions. Recognizing the facts that the canal varies in its capacity for distention in its different divisions, and that no two urethrae are alike in regard to their normal calibre, no limit was placed upon the size of the bougies employed in the subsequent treatment, as each case had to be managed upon its individual merits. Hence, there are certain disadvantages in this method, which depend upon the normal anatomy of the urethra. Not only, in the vast majority of cases, does the meatus require to be enlarged, as a preliminary measure—and I have only met with two examples in which the size of that orifice corresponded with the size of the passage behind it—but violence is liable to be inflicted upon the sound portions of the canal, which correspond to its actual normal contractions at the end of the navicular fossa and at the bulbo-membranous junction, and occasionally to one present about an inch in advance of the latter locality, or possibly others in the spongy portion, as demonstrated by Dr. Weir.\*

To place the subject in a clearer light, let it be assumed that a stricture is seated in the middle of the spongy portion, which latter equals 32 mm. in circumference, while the meatus measures 24 mm. To act efficiently upon the coarctation, an instrument 32 mm. in circumference must be passed; but to do this, the orifice will have to be divided to the extent of producing, in many instances, a deformity. In addition to this operation, which is not only painful, but is inconvenient to the patient on account of the hemorrhage which attends the subsequent passage of the bougie, with a view to keep the lips of the incision separated during the healing process, an instrument of the size specified is liable to sever not only the natural



FIG. 1.



contractions at the end of the navicular fossa and at the commencement of the membranous portion, if it be carried so far back, but also to produce one or more tears in the ante-bulbous urethra, as is exemplified in the sketch, and is further illustrated by two cases recorded by Dr. Gouley.\* In the event of the stricture being seated in the bulb, the meatus will have to be cut still more freely, while the danger of tearing sound tissue will be greatly increased.

From these considerations, which are not theoretical, but are based upon actual observations, I have arrived at the conclusion that enlargement of the meatus is uncalled for when the relation between its size and that of the spongy urethra is normal. Hence, I have been trying for some months past, to devise an instrument with which, after divulsion or internal incision, the severed parts could alone be stretched during the healing process, without detriment to the remainder of the urethra, and I have finally succeeded in perfecting the dilator shown in Fig. 2. It consists of a No. 16 steel sound, the terminal two-thirds of which are split into two halves to form the blades. These are united at the vesical extremity, where they are carefully bevelled, and can be separated laterally, so as to form a spindle-shaped body, by a flattened cone attached to a rod, which is acted upon by a wheel at the proximal end of the handle, the extent to which the blades can be parted being indicated by a register, marked in millimetres, attached to the handle.

In using the instrument, the blades are expanded sufficiently to traverse the meatus without overstretching it, when its centre is made to correspond with the divided stricture, and the wheel is slowly turned until the register indicates that the desired degree of distention has been reached. By reversing the wheel, the blades are approximated and the dilator withdrawn.

In the event of the meatus being congenitally contracted, or smaller, from any cause, than it ought to be, it should be enlarged only to the extent of being 8 mm. less in circumference than the spongy portion of the urethra. By preserving these normal relations,† which are obviously intended to increase the projectile force of the seminal fluid and the stream of urine, the natural functions of the urethra will be preserved, extensive cutting will be avoided, and the patient be spared suffering and discomfort.

As the sides of the expanding cone of the dilator protrude through narrow ovoidal openings in the blades.



FIG. 2.

the instrument may be used as an explorer to define the anterior face of a stricture, when it may be employed for ordinary dilatation, by gradually and progressively expanding the blades; or it may be utilized as a divulsor, by rapidly turning the wheel. I have recently resorted to it on two occasions for forcible rupture, and found that it answered every purpose.

With regard to the ultimate results of the operation as practised in the way that I have described, my experience is, as yet, too limited to speak authoritatively.

Within the past month I have twice used the dilator, instead of conical steel bougies, after internal incision, and I have every reason to be satisfied with its action.

It is proper to state that Dr. Gouley\* has described an instrument which he has found advantageous not only for overstretching the passage in cases of granular urethritis, but also for replacing conical steel bougies in the process of gradual dilatation, whereby he does away with division of the meatus.

In conclusion, I may be permitted to incorporate the substance of the preceding considerations in the following axioms:

1. The rational treatment of stricture of the urethra consists in restoring the natural expansibility, or calibre, of the affected portion of the canal.
2. Before any operation, having this end in view, is practised, the sensibility of the urethra should be obtunded, lest it resent the violence to which it is about to be subjected.
3. After the spasm and hyperæsthesia have been relieved, the calibre of that portion of the urethra in which the stricture is located should be estimated by the urethrometer, with the view of bringing the affected portion up to that standard.
4. Internal urethrotomy from behind forwards is the most effectual mode of accomplishing that object.
- 5, and finally. The meatus should not be interfered with, provided its circumference is eight millimetres less than that of the spongy urethra.

[See discussion on paper, page 475.]

THE NEW YORK ORTHOPÆDIC DISPENSARY AND HOSPITAL.—Surgeon Shaffer's report for 1877, together with considerable information respecting the best methods of treatment, evidences a rather startling aggregate of spinal and other deformity, giving statistics of 986 cases, of which, however, only 407 were new. Of the whole number 256 were cases of hip-joint disease, 299 of humpback, 70 of white swelling, 56 of lateral curvature, 73 of deformities arising from infantile paralysis, and 62 of club-foot. Of the twenty-eight cases of hip-joint disease reported cured one has been under treatment for ten years, and one only three months; the average period for them all having been three years and three months. Still more obdurate were the sixteen cases of humpback reported cured; the average period of treatment having been six years. Nevertheless, Dr. Shaffer regards lateral curvature as the most obstinate deformity that he has been called upon to treat. He reports cures in only three cases out of fifty-six, while of the whole number of cases of club-foot ten have been radically cured. Of the twenty-five deaths eighteen were associated with white swelling. Only ten surgical operations were performed during the year, of which eight were for the relief of club-foot.

\* Op. cit., Case III., p. 63, and Case V., p. 65.

† I believe that the meatus and spongy urethra in front of the bulb bear almost constant relative proportions to each other, so that the former really constitutes a gauge for the latter. Weir's estimates, based upon 114 measurements, show that the average meatus is 24.91 mm. in circumference, while the average spongy urethra averages 32 mm. Oris, from 100 observations, fixes them, respectively, at 24.72 mm. and 32.95 mm., while I have found them, in 83 trials, to be 24 mm. and 32 mm.

\* Op. cit., Fig. 17, p. 45.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## AMERICAN MEDICAL ASSOCIATION.

THE American Medical Association was a success, in the ordinary acceptance of the term; that is to say, the usual interest was manifested in the proceedings, and a goodly number of delegates and permanent members were present. The ordinary routine business was transacted with becoming dispatch, and altogether the dignity of a deliberative body of scientific medical men was well maintained. Some of the questions were, as we expected, almost hackneyed beyond the further tolerance of discussion: but courtesy and good feeling prevailed in favor of the tireless agitators, and they at least were satisfied.

The homœopathic question was brought before the Association in one of its many phases, as a sequel to a report by the Judicial Council. Charges were made last year against a member of the Faculty of the Michigan University for teaching medicine to students of said university who intended to practise homœopathy, it being claimed that such a proceeding was in violation of the letter and spirit of the code of medical ethics. The Judicial Council, in a special report upon the matter, failed to find any actual violation of the code, and was not inclined to take the responsibility of any decision in the premises. So far the action was judicious, conservative, and liberal. It is to be regretted, however, that as much cannot be said of subsequent proceedings bearing upon this question, and that the Association was tempted to recommend an addition to the code so openly opposed to the tolerance of medical opinion. The action was, in our judgment unnecessary, and really beneath the dignity and foreign to the recognized purposes of the Association. Indeed, we go farther by assuming that the Association exceeded its authority in attempting to place an embargo upon medical education by making the acquisition of the latter purely conditional with any arbitrary rules

which it may adopt. This is so contrary to the spirit of our free institutions, to all the broad and liberal principles upon which our government is founded, that it appears not only absurd, but ridiculous. No one is accountable to any college or teacher for the use he shall make of his education, provided said use is not contrary to law, order, or morality; and no teacher has a moral or legal right to deny any educational advantages to a student simply because he does not choose to apply his knowledge in a particular way. We cannot resist the conviction that the proposition of the Association is in the direction of a long step backward, and savors of an intolerance which involuntarily arouses the antagonism of all true friends of progress. If homœopathy is founded on an exclusive dogma, we must overcome it by showing our own liberality in matters of opinion. We must treat the question by contraries rather than by similars. If homœopathy is founded on ignorance, the more education we give its prospective followers, the more effectually can we overcome the pernicious influences of its system. The principle proposed by the Association is wrong from beginning to end, and is a reflection upon the judgment and common sense of the whole regular profession.

The work in the Sections—an account of which must be deferred until the succeeding issue—was well performed, notably in that of the Surgical and Obstetrical. The question of shortening in fractures came up, and was settled in a very satisfactory way. Notwithstanding the radical assertion of one gentleman to the contrary, the Surgical Section promptly reaffirmed its previous decision, to the effect that, despite the most judicious plans of treatment known to surgeons, shortening after fractures of the long bones was the rule. So far as the matter may be one of mere individual opinion, it would be safe enough to leave it to rest upon its own merits, as each surgeon is capable of drawing his own conclusions based upon his own experience and observation. But the case is very different when an attempt is made to commit the profession authoritatively to a statement which is contrary to general experience. The deliberate expression of such an opinion, especially on such a subject extends beyond the pale of strictly professional influences, and, from a medico-legal point of view, has an importance which can scarcely be overrated, in giving every surgeon sued for malpractice a proper defence.

The President's address was well-timed, appropriate, and suggestive. The school question received its due share of attention, and the Association gracefully acknowledged the work of "the Apostles of School Hygiene in New York" by advocating medical representation upon educational boards. But it would be useless to allude in detail to the multitude of topics discussed, and so we refer our readers to our report.



## Reports of Societies.

### AMERICAN MEDICAL ASSOCIATION.

#### TWENTY-NINTH ANNUAL MEETING,

*Held in the city of Buffalo, June 4, 5, 6 and 7, 1878.*

TUESDAY, JUNE 4TH.—FIRST DAY.

THE Association met in St. James' Hall, and was called to order at 11 A.M., June 4, 1878, by the President, DR. T. G. RICHARDSON, of New Orleans, La.

Prayer was offered by Rev. L. Van Bokkelen, M.D.

The President invited Drs. S. D. Gross, of Philadelphia; Bowditch, of Boston; N. S. Davis, of Chicago, and J. M. Toner, of Washington, to take seats upon the platform.

DR. THOMAS F. ROCHESTER, of Buffalo, Chairman of the Committee of Arrangements, then delivered the

#### ADDRESS OF WELCOME.

In the name of the citizens of Buffalo and of Erie County, he extended a most cordial welcome to their city, to their hospitality, and to all that was within their power to offer towards the reaching of three objects for which the Association assembled:

1. The general good and advancement of medicine;
2. The making personal acquaintance with each other;
3. The taking a little of what was so often prescribed—namely, wholesome recreation.

To that end a most cordial welcome was extended to visit the various public buildings in the city, the prison, the alms-house, the Niagara elevator, the hospitals, the Institution for the Instruction of the Deaf and Dumb, the Medical College with its museum and laboratory, the public parks—in short, the physicians of Buffalo, through Dr. Rochester, resolved themselves into a "committee of the whole," and placed themselves at the service of the American Medical Association.

The report of the Committee of Arrangements on

#### THE CREDENTIALS OF MEMBERS

was read by the Secretary of the Association, Dr. Atkinson, of Philadelphia. As the names were read it was seen that a large number of the States were represented.

#### CHARGES AND PROTESTS.

DR. P. J. DWYER presented charges against the Medical and Surgical Society of Grand Rapids, Michigan.

The Arkansas State Medical Society presented a protest against the admission of certain members from Hot Springs, Arkansas.

Also a protest against the acceptance of Dr. James M. Keller, of Arkansas, as a member of the Association.

DR. KELLER rose to a question of privilege, and made explanation to the effect that the man who made the protest against his (Dr. K.'s) acceptance by the Association was the man who had been expelled from the Arkansas State Medical Society upon charges preferred by himself (Dr. K.).

The charges and protests were referred to the Judicial Council.

#### MEMBERS BY INVITATION.

DR. ROCHESTER made the following announcement of members by invitation: All the members of the Erie County Medical Society not now delegates or permanent members of the Association; Drs. George W. Stone, United States Marine Hospital Service; F. Lange, Kiel, Germany; and Edward Hutchinson, of Utica, N. Y.

#### FOR PERMANENT MEMBERS:

Drs. George I. Northrup, of Marquette, Mich., Stanford E. Chaille, of New Orleans, La., and L. G. Thacker, of Defiance, O.

The report was adopted.

#### TELEGRAM FROM DR. J. MARION SIMS.

The Secretary read the following telegram from Dr. J. MARION SIMS, now in Paris:

"President American Medical Association—May your meeting be harmonious and contribute more than ever to the advancement of medicine. Truly sorry I cannot be with you."

#### PRESIDENT'S ADDRESS.

DR. JAMES P. WHITE, of Buffalo, Chairman of the Reception Committee, introduced the President, DR. RICHARDSON, who proceeded to deliver the annual address.

The vast benefits which the Association had wrought in uniting the interests of the profession in all the different sections of the country; the encouragement which it had given to a higher culture; the valuable contributions which it had made to some departments of medicine, and the dignified position which it had gained in the eyes of the whole nation, had been so often descanted upon by his predecessors, that it might seem somewhat trite and unprofitable to refer to them again; and yet there was one point which deserved to be brought to the attention of the Association anew, and that was

#### MEDICAL EDUCATION.

Although more than a generation had passed away since the first meeting of the Association in the city of New York, but few of the original members clustered around the venerable form of him whom we all delighted to honor as its projector and the ever-watchful guardian of its interests. The two most prominent objects in the minds of the earnest men who composed that assembly were the improvement of the system of medical education in the United States, and the elevation of the standard of requirement for the professional degree. It was equally well known that, down to within a very few years past, all the numerous efforts in that direction seemed to accomplish no permanent good, and the philanthropic and enthusiastic reformers, with the exception of a few hopeful and unconquerable spirits, had come to consider the cause as almost wholly lost. Although the result had been so discouraging, yet the Association was to be congratulated upon the evidences, which were now developing, that its work had not been in vain. It was true that the method of mixed teaching practised by the schools more than half a century ago was generally followed; but it must be clear to all unprejudiced observers that there was a growing dissatisfaction with the imperfections of that method, and a disposition to adopt the only philosophic plan, known as the graded system, which prevailed throughout all the other civilized nations of the world. We had just found out that the plan which we formerly

pursued of making war directly upon the medical colleges, endeavoring to compel them to conform their practices to our theories, or else surrender the prerogatives to which they had been so long accustomed, was altogether a mistake, and probably deserved the partial defeat which it encountered.

It was only by capturing the grand army of the profession throughout the country, from which the colleges derived their material and moral support, that we could reasonably hope to bring those institutions to terms. To that end there should be a more

#### THOROUGH ORGANIZATION

of State and County District Societies, and the President suggested that the Association adopt some uniform plan by which the sixty thousand physicians in the country might be encouraged to unite in district organizations, and through their representatives establish a living union with this, the central legislative body. When that was effected, no honest faculty would dare confer a diploma upon an unworthy candidate.

Leaving this subject, Dr. Richardson passed to the consideration of the question of

#### ORIGINAL INVESTIGATION.

In view of the very small amount of work that had been done in that direction in this country, it was suggested that it might be the duty of the Association to do something more than it had done to foster the spirit of investigation and discovery in those departments which related directly to medicine.

#### METHODS SUGGESTED.

Two methods of effecting that were suggested. One was to endeavor to concentrate the influence of the entire profession throughout the country upon the Federal Congress, with the view of convincing its members of the importance of scientific enterprises.

He was not prepared to propose a plan sufficiently elaborated to justify submitting it to the Association with the view of having it brought before the authorities at Washington. Yet it seemed to him that in the Army Medical Museum and Library the general government had, unintentionally no doubt, already founded a school, which, through the influences just indicated, might possibly be made the nucleus of a great national institute, in which original research in all the sciences upon which medicine more immediately drew could be conducted with the same wisdom and efficiency which characterized its present management.

The second method suggested was to incorporate the Association, and then stimulate to original investigations by offering prizes.

The President then passed to the subject of

#### STATE MEDICINE.

The objects of State medicine were threefold:

1. The prevention or arrest by official measures of all diseases which were not in their nature strictly limited to the individual, but which, from external causes, or from their specific characters, had a tendency to spread throughout families, institutions, and communities, and which could not be otherwise controlled.

2. The qualification of men by suitable education for the duties involved not only in the practice of medicine, but also of public hygiene, the State not only directing the studies which they should follow, but determining by examination when they had reached the standard of acquirement necessary for the proper performance of their great trusts.

3. The enactment and enforcement by the State of such laws as would secure to every citizen the benefit of the services of the best professional experts in all questions of a medico-legal character.

With a view of arriving at desired results in that department, it was suggested that a committee of leading sanitarians be appointed to prepare a somewhat elaborate address to the profession and the public, setting forth the transcendent importance of the subject, presenting a summary of sanitary science, pointing out the best methods of studying and teaching the same, and demonstrating the great benefits to be derived therefrom by the individual and the community in general. Without attempting to portray the special features that should appear in such an address, Dr. Richardson took the liberty of saying that it should not omit to insist upon the great necessity of teaching the young not only the laws of health, but the elements of physiology, which were essential to a proper comprehension of the principles of hygiene.

It had been proposed not to await the necessarily slow march of sanitary intelligence among the people, but to petition the Federal legislature at once to create a sanitary department in the general government, with an officer at its head who should be assisted in the performance of his duties by a

#### NATIONAL COUNCIL OF HEALTH,

composed of members from every State in the Union.

Dr. Richardson, however, believed there were but two great questions in State medicine which we could reasonably hope to have solved by Federal legislation. One concerned seaboard quarantine, and the other the pollution of water-courses. It was doubted by many eminent statesmen whether even those could be brought under Federal control; and yet the recent passage by Congress, of "an act to prevent the introduction of contagious and infectious diseases into the United States," encouraged us to hope that something might be expected from that quarter.

Whatever doubts there might be as to the extent of the authority possessed by the central government, there seemed to be no dispute that within the limits of each separate State resided a power which, with reference to all such matters, was practically supreme. It was, therefore, upon that power that the State medical societies should concentrate all their influence, professional and social, to effect the necessary legislation. They should employ their best endeavors to have

#### STATE BOARDS OF HEALTH

created where they did not at present exist, and they should by all means secure the right of nomination for appointments upon such boards. Whatever plan, however, might be advocated by societies, it should be borne in mind, in recommending legislation, that while it was true that a people ignorant of even the elements of hygiene could not be brought under sanitary legislation except by restraint, such restraint should be used with the greatest caution and moderation, and be sustained by an appeal to the common sense of those to whom it was applied. He therefore repeated with added emphasis the sentiment already expressed, that the hope of progress in State medicine was in the education of the people.

On motion made by Dr. Gross, the thanks of the Association were tendered to Dr. Richardson for his admirable, excellent, highly elaborate, and eloquent address.

On motion made by Dr. WHITE and seconded by Dr. Gross, the President's address was referred to a



committee of *five*, of which the President was chairman. The remainder of the committee consisted of Dr. Richardson's *four* immediate predecessors.

## REPORTS OF DELEGATES.

DR. WILLIAM BRODIE, of Detroit, made a report as delegate to the Canadian Medical Association.

Special mention was made of a paper read by Dr. James Workman, of Toronto, on "Crime and Insanity," which was read in the general meeting, and, after a full discussion, led to the adoption of the following resolution:

"*Resolved*, That, in the opinion of this Association, it is desirable, in all criminal trials, when medical opinion suggests the possibility of mental unsoundness, the accused should be placed under the supervision of experts for a sufficient time to enable them to determine whether he or she was insane or not at the time the crime was committed."

DR. LEWIS A. SAYRE, of New York, made a brief verbal report as delegate to the British Medical Association, which met in Manchester in July, 1877.

## UNIFORMITY OF OBSERVATION AND RECORD.

DR. E. SEGUIN, of New York, made a report as delegate to the International Medical Congress of Geneva:

The Delegates of the American Medical Association to the International Medical Congress of Geneva were charged: "To advocate the adoption of a progressive uniformity of means of observation and record, with the concurrence, if possible, of the members of this Congress who would be found there engaged in advocating the application of uniformity in this and other departments of science."

The question was brought before the British Medical Association, and also before the French Association for the Advancement of Science prior to the direct mission at Geneva. The subject was carried from the Section of General Medicine to the General Congress, and the following resolutions were adopted:

For physicians and surgeons, the principle accepted by the Congress is a gradual international uniformity of their nomenclatures, scales, measures, calibres of instruments; of the records of private and hospital practice, of physiological experiments, of medical climatology, barometry, thermometry, statistics, etc.

In pharmacy the Congress of Geneva has accepted the conclusions voted at St. Petersburg and Brussels, as presented by Profs. Gille and Matsen:

1st. The adoption of a universal pharmacopœia, to be written in Latin.

2d. The decimal system for weights and measures, and the Centigrade scale for temperatures.

3d. A uniform nomenclature (probably that of Berzelius).

4th. The chemical preparations to be of determined strength and purity, and the pure drugs to be of essayed strength, if possible.

5th. The Galenic preparations made as simple as possible, and described according to a uniform plan.

6th. The other pharmaceutical preparations to be made uniform (that is, those which are powerful, like tinctura opii, aconiti, nucis vomicæ, hashish, podophyllin, elaterium, etc.).

7th. Physicians to be left free and responsible for the non-official ingredients and doses of their magistral prescriptions.

MARION SIMS,  
THOMAS DRYSDALE,  
EDWARD SEGUIN.

The reports were all accepted, and referred to the Committee of Publication.

The Association then adjourned to meet on Wednesday, at 9.30 A.M.

## WEDNESDAY, JUNE 5TH.—SECOND DAY.

The Association was called to order at 9.30 A.M., by the President, Dr. Richardson.

## MEMBERS BY INVITATION.

DR. ROCHESTER reported the names of the following gentlemen as members by invitation: Drs. Bray and Murphy, of Chatham, Ont.; J. E. Graham, M.D., of Toronto, Secretary of the Toronto Medical Society; Dr. T. Mack, Dr. T. Clark, of St. Catherine's; Dr. McCargo, of Caledonia, Ont.; Dr. Dunn, of Lodi, N. Y., and Dr. George Rightmire, of Jacksonville, N. Y.

## FOR PERMANENT MEMBER.

Dr. Wm. S. Tremaine, U. S. A., Fort Dodge, Kansas. Drs. Clark, Trenholme, and Botsford, delegates from the Canadian Medical Association, were invited to take seats upon the platform.

## REPORTS FROM THE JUDICIAL COUNCIL.

The following report was presented by the Judicial Council:

The charges against Dr. J. M. Keller, presented by Dr. G. W. Lawrence, were dismissed as being unworthy of any consideration.

The charges against the Society of Grand Rapids, Mich., presented by Dr. P. J. Dwyer, were unsubstantiated and unaccompanied by witnesses and testimony whereby the Judicial Council might be able to act.

The Arkansas petitions referring to the State Medical Society were dismissed without action.

The charges against the Michigan State Society, by Dr. W. W. Jones, would be reported upon by Dr. N. S. Davis, Chairman of the Judicial Council.

The charges against W. T. Barr, M.D., of Abingdon, Va., presented by Dr. Ulrich, of Chester, Pa., were dismissed by the Council.

S. N. BENHAM, M.D., Secretary.

P. S.—In reference to the communication from the State Medical Society of Arkansas, notifying the Association that the Hot Springs and Garland County Medical Society was not recognized by the State Medical Society and protesting against the reception of any member of that Society, it is decided that under the by-laws of this Association said Hot Springs and Garland County Society loses its recognition with the Association from date of its severance from the State Society.

## A PHASE OF THE HOMŒOPATHIC QUESTION.

DR. N. S. DAVIS made the following appended report of the Judicial Council concerning the charges against the Michigan State Medical Society, referred by the Association at the Annual Meeting in June, 1877:

"The charge in this case was alleged violation of the Code of Ethics on the part of the Michigan State Medical Society, in electing as a delegate to this Association Dr. E. S. Dunster, of the University of Michigan, knowing him to be engaged in aiding and abetting the graduation of students devoted to an exclusive dogma in medicine.

"After a most careful examination of the Code of Ethics, as it has appeared in the Transactions of this Association from year to year, the Judicial Council

fail to find any section or paragraph in it that refers even remotely to the practice that constitutes the foundation of the charge under consideration. That any member of the medical profession proper should ever engage in teaching, examining, and certifying to the qualifications of students, knowing that such teaching and examination was to aid said students in obtaining a diploma directly admitting them into a fraternity of irregular practitioners was evidently not contemplated by the framers of our Code of Ethics; and hence they inserted no clause or section bearing upon that subject. The only provision in the Code referring to those engaged in an attempt to practise medicine in accordance with some 'exclusive dogma,' is in the section regulating consultations at the bedside of the sick. If the Judicial Council of this national organization should assume that the section of the Code just referred to indicated the 'spirit' of those who framed and adopted it, and on that assumption apply it to matters and practices entirely foreign to those mentioned in the doctrine itself, it would not only violate all the accepted principles of judicial construction, but would establish a precedent in latitudinous construction of the Ethical Code more dangerous to the best interests of the profession than all the evils sought to be remedied in the case under consideration.

"It is true that this Association has adopted at different times two resolutions, having reference to the subject involved in the charge against the Michigan State Medical Society, which still stand as expressions of opinion unrepealed. But these resolutions constitute no part of the Code of Ethics; neither is obedience to them enjoined by the constitution and by-laws on State and local medical societies as a condition of representation in this Association. Therefore, while deprecating the practice of aiding or abetting in any way the teaching and graduation of students known to be supporters of irregular and exclusive dogmas in medicine, as beneath the dignity of right-minded teachers of an honorable and liberal profession, your Judicial Council can find no clause in either the constitution, by-laws, or Code of Ethics, as they now exist, under which the charge against the Michigan State Society can be entertained and adjudicated."

Dr. TONER, of Washington, in view of the fact that there was an unwritten law which governed such cases, moved to refer the report made by Dr. Davis back to the Judicial Council.

The motion was seconded and discussed by Dr. Basey, of Washington, and also discussed by Drs. Toner, Davis, Woodward, Brodie, and Menees.

The hour for the next order of business having arrived, the question was passed over without action.

Letters from Dr. B. A. Vaughn, of Columbus, Miss., and Dr. Robert Buttey, of Rome, Ga., expressing regret at not being able to attend the Convention, were next read, and ordered entered upon the minutes.

ADDRESS OF DR. H. H. SMITH, OF PHILADELPHIA, CHAIRMAN OF THE SECTION ON SURGERY AND ANATOMY.

Dr. SMITH departed somewhat from previous custom in relation to the character of the addresses from the chairmen of the Sections, and selected a single subject, to which he directed the attention of the Association. The subject was:

CERTAIN POINTS IN THE PATHOLOGY OF THE BONES, ESPECIALLY TUBERCLE.

Recently a new function had been assigned to the skeleton, and the bones had been regarded by many as a focus for the origin of red and white blood-cor-

puscles, and through which diseased matter was introduced into the general circulation. Certain results which followed operations on the bones—such as erysipelas, septicemia—were doubtless due to impairment of the blood-forming functions of the myeloid cells in the medullary portion.

It was suggested that the cases of bone and joint disease, which had been reported as due to exanthematous fevers (Gibney), were perhaps cases in which the first departure from health was in the medulla of the bones, and that the exanthemata were symptoms, and not causes.

Passing to the consideration of

#### TUBERCLE IN BONE,

Dr. Smith gave a *résumé* of the opinions which had been given by Virchow, Rindfleisch, Wilson Fox, Rodenstein, of Yonkers, N. Y., and others, regarding the character of tubercle, and from those opinions reached the conclusion that tubercle was formed from the blood through the action of the lymphatic vessels.

The conclusion reached by Dr. Smith was—

1. That tubercle was closely connected with the lymphatics, and that it was deposited in the lymphatic vessels in Pott's disease, also in the epiphyses of the long bones as well as in the spongy bones of the ankle-joint.

2. That its development and progress in these localities was the same as when deposited in other tissues.

3. That tubercle affected the vessels and cancelled structure of the bones, and not the ligaments and cartilage.

4. That the destruction of cartilages and ligaments was the effect and not the cause of impaired nutrition.

5. That softening tubercle produced congestion and inflammation of the bone-cells about the deposit.

6. That perverted myeloid cell action was consequent upon such change, and reacted in the way of modifying the formation of blood-corpuscles.

7. That what was termed scrofulous disease of the bones was essentially a disturbance of the myeloid cells.

The practical lesson to be derived from such facts was that we should still hold to the teachings of our forefathers, and let constitutional treatment form an important and leading part of the management of the case, and that

#### MECHANICAL APPLIANCES SHOULD BE SECONDARY.

With reference to Pott's disease, Dr. Smith took the open position that *external violence* had nothing whatever to do with it, but that destruction of the cancellated structure of the vertebra was the result of caseous deposit and evacuation of softened tubercle.

He also believed that hip disease was due to the same cause, and that the cancellated structure was first affected. The treatment of Pott's disease by suspension was at least two hundred years old, and the splint which kept the diseased surfaces in hip disease apart was an admirable instrument; but no matter what the mechanical apparatus might be, it should not supplant a proper tonic and alterative plan of treatment.

The treatment of phthisis by injecting the cavities in the lungs had met with some success in the hands of Dr. Pepper, of Philadelphia, and it might yet be a plan of treatment for bone disease to inject the cancellated structure with substances such as phosphoric and lactic acids, etc., which favored the evacuation of the caseous material.

The address was referred to the Section on Surgery.



## INTERVENTION OF PHYSICIANS IN EDUCATION.

In the Section on State Medicine and Public Hygiene, June 4th, Dr. E. Seguin, of New York, read a paper upon the above subject, and it was referred to the general Association.

Dr. FRANK H. HAMILTON, of New York, in behalf of Dr. Seguin, presented the paper, from which he read several extracts, and then opened the discussion. He spoke at some length, and made special reference to the hygienic condition of the public-school rooms in the city of New York, and how unavailing all efforts thus far had proved in the way of securing a medical representation in the Board of Education. The only remedy for correcting the growing evils in connection with school hygiene was in an united action upon the part of the medical profession. Dr. Hamilton closed his remarks by the introduction of the following resolution, which was unanimously adopted:

"*Resolved*, That in the opinion of this Association medical men ought to have a voice in the construction and location of public-school buildings; in the question as to the age at which children should be admitted, the hours of study, the size of type used, and the general management of these institutions; and to this end it is believed to be necessary that one or more intelligent physicians should be placed upon Boards of Education, Boards of Trustees, and upon other similar boards having the control of public education and schools."

Owing to the lateness of the hour, farther discussion was prevented, and the President introduced

Dr. E. W. JENKS, of Detroit, Chairman of the Section on Obstetrics and Diseases of Women, who delivered an address upon

## THE CAUSES OF SUDDEN DEATH IN PUERPERAL WOMEN.

After reviewing the literature of the subject, Dr. Jenks studied his subject under four heads:

1. Lesions of the Circulatory System.
2. Lesions of the Respiratory System.
3. Lesions of the Nervous System.
4. Puerperal Septicæmia.

The following conclusions were reached:

Septicæmia in its most malignant form was one of the chief causes of sudden death in puerperal women, and it was more than probable that small and large emboli were formed by the disorganizing effect which that condition produced upon the white blood-corpuscles.

Of the various valvular lesions of the heart, mitral stenosis was the most dangerous for the pregnant or puerperal woman. The usual mode of sudden death with the valvular lesions was through pulmonary oedema.

Endocarditis, old and recent, was extremely liable to be rekindled in the puerperal condition, result in ulcerative puerperal endocarditis, and give rise to embolism. The practical deduction was that women who had suffered from endocarditis should be discouraged from getting married, lest embolism and sudden death should occur in the puerperal condition.

Endocarditis might result from one of the forms of puerperal fever.

Fatty heart was a possible cause of sudden death in the puerperal woman. Only two cases, however, had been reported, and one was by Dr. Jenks.

Arterial degeneration might cause sudden death in the puerperal woman in two ways: 1. By allowing rupture of the vessel. 2. By favoring the development of thrombosis and embolism.

Arteritis of itself rarely caused sudden death in the puerperal woman.

Phlebitis was a frequent source of sudden death in these cases, terminating in pulmonary obstruction.

The injection of large quantities of air into the veins caused sudden death, but relatively the entrance of air into the veins of the puerperal woman was an infrequent cause of sudden death. The introduction of the hand into the uterus occasionally caused sudden death by facilitating the introduction of air into the veins.

Puerperal eclampsia was a most conspicuous cause of sudden death, but the mortality in that class of cases had been very much decreased by the progress which had been made in treatment.

Tetanus might give rise to sudden death in the puerperal woman.

Every physician should feel bound by professional obligation to thoroughly study the pathological anatomy of any case of sudden death, with the view, if possible, of arriving at the cause of death in any case which came under observation.

There were many other causes, such as ruptured heart, ruptured uterus, apoplexy, profound moral emotion, post-partum hemorrhage, mental excitement, shock, traumatism, etc., which were well recognized, and for that reason their special consideration was omitted.

The address was referred to the Section on Obstetrics.

## COMMITTEE ON NOMINATIONS.

The Committee on Nominations was announced as follows: A. Linthicum, Arkansas; J. F. Bancroft, Colorado; B. H. Catlin, Connecticut; J. M. Toner, District of Columbia; W. F. Westmoreland, Georgia; Moses Gunn, Illinois; Jas. F. Hibbard, Indiana; G. P. Hanawald, Iowa; C. V. Mothram, Kansas; J. M. Bodine, Kentucky; O. P. Langeworthly, Louisiana; C. T. Collins, Massachusetts; T. B. Evans, Maryland; S. H. Weeks, Maine; J. R. Thomas, Michigan; C. P. Adams, Minnesota; W. M. Compton, Mississippi; J. M. Allen, Missouri; S. Lilly, New Jersey; J. P. Gray, New York; Dr. Adams, New Hampshire; Chas. Duffee, Jr., North Carolina; J. W. Russell, Ohio; A. Fricke, Pennsylvania; T. C. Lawton, Rhode Island; J. H. Van Deman, Tennessee; J. L. Cabell, Virginia; W. Kempster, Wisconsin; Jno. C. Hupp, West Virginia; Dr. Duvall, United States Navy; Dr. J. R. Smith, United States Army.

## PREAMBLE AND RESOLUTION.

Dr. J. R. BRONSON, of Massachusetts, offered the following preamble and resolution:

"*Whereas*, By the report of the Judicial Council submitted this day, we are informed that the Ethical Code of this Association is imperfect, in that it does not recognize by its letter a conceded violation of the spirit of our profession in its relation to irregular medicine; therefore,

"*Resolved*, That said Council be instructed to submit to this Association, at their next meeting, for its consideration, an amendment to the Code covering this omission."

The resolution was referred to the Judicial Council as a committee.

Dr. FOSTER PRATT, of Kalamazoo, Michigan, offered a resolution in relation to the legal status of the insane, which was referred to the Section on Medical Jurisprudence.

The Association then adjourned to meet on Thursday, June 6th, at 9.30 A.M.

## WEDNESDAY EVENING—SECOND DAY.

## MORPHOLOGICAL CHANGES IN SYPHILITIC BLOOD.

In the Section on Practical Medicine,

Dr. EPHRAIM CUTTER, of Boston, gave a microphotographic exhibition of the morphological changes which occurred in the blood in consequence of syphilis. The diagnosis of syphilis was based upon the presence in the blood of a *copper-colored* filiform growth with rounded and enlarged extremities and spores. Dr. Cutter regarded the demonstration as corroborative of the claims made by Dr. Salisbury in connection with the same subject.

He thoroughly believed that positive diagnosis of syphilis could be made by microscopical examination of the blood.

He also believed that Losterfer was correct in his statement that the white blood-corpuscles were enlarged in syphilis; but he should have insisted upon the *copper color* of the spores.

## THURSDAY, JUNE 6TH.—THIRD DAY.

The Association was called to order at 9.30 A.M. by the President.

The Secretary read the names of those who had registered since June 5th.

## MEMBERS BY INVITATION.

Dr. ROCHESTER, Chairman of the Committee of Arrangements, made the following report:

For members by invitation—Drs. Lawrence D. Trowbridge, of Niagara, N. Y.; Thomas McLean, of Goderich, Ont.; W. W. Potter, of Batavia, N. Y.; D. H. Kitchen, Superintendent of New York State Inebriate Asylum at Binghamton, N. Y.; H. R. Clark, Geneva, N. Y.; I. N. Goff, Cazenovia, N. Y.

A letter of regret from Dr. R. O. Howard, of Montreal, was read by the Secretary.

## REPORT FROM THE JUDICIAL COUNCIL.

The Judicial Council reported that the charges against the Iowa State Medical Society, and Scott County Medical Society, presented by Dr. P. J. Farnsworth, were dismissed, because the subject had been already adjudicated by the Council at their Detroit meeting in 1874. They also reported that in the matter of the Washtenaw County Medical Society, it was decided that the Ann Arbor Society was entitled to two delegates to the present meeting.

Dr. A. C. POST, of New York, moved that the first two on the list from the Ann Arbor Medical Society be received as delegates, the others remaining as members by invitation. Carried.

## CONSOLIDATION OF SECTIONS.

Dr. A. N. BELL, of Brooklyn, offered the following resolution, which was laid over until next year:

"Resolved, That Section Four, on Medical Jurisprudence and Psychology, and Section Five, on State Medicine and Public Hygiene, be consolidated into one Section as Section Four."

## REPORT OF JUDICIAL COUNCIL AS A COMMITTEE.

Dr. N. S. DAVIS, Chairman of the Judicial Council, presented the following report as an amendment to the Code of Ethics:

"In obedience to the instructions of this Association, the Judicial Council, acting in the capacity of a committee, have unanimously instructed me to report to your Honorable Body the following amendment and addition to paragraph 1, article 1. of the second di-

vision of the Code of Ethics, under the general heading, 'Of the Duties of Physicians to each other, and to the Profession at Large,' and the special heading, 'Duties for the Support of Professional Characters.' The same, when finally adopted, to be added at the end, and to constitute a part of said paragraph 1, of article 1. The proposed addition is in these words: 'And hence it is considered derogatory to the interests of the public, and the honor of the profession, for any physician or teacher to aid, in any way, the medical teaching or graduation of persons, knowing them to be supporters and intended practitioners of some irregular and exclusive system of medicine.'"

The report, under the rules, went over for one year.

## REPORT OF THE COMMITTEE ON NECROLOGY.

Dr. J. M. TONER, of Washington, Chairman, presented the report, which contained sketches of seventy-five members. He further remarked that there were 850 names now upon the list of necrology of the Association.

The report was referred to the Committee of Publication.

## COMMITTEE ON NATIONAL LIBRARY.

The Secretary stated that the Committee on Catalogue of National Library was not prepared to report, and asked that the committee be continued. Granted.

## ADDRESS OF DR. A. L. LOOMIS, OF NEW YORK, CHAIRMAN OF THE SECTION ON PRACTICAL MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY.

Dr. LOOMIS opened his address by making brief reference to a few of the more important advances in medicine which had been made during the past year, and then passed to the consideration of the *climatic treatment of pulmonary phthisis*.

With reference to the *germ theory* of disease it was believed that the facts as now presented did not warrant its acceptance.

With reference to the *etiology of typhoid fever* no new facts had been elicited regarding its spontaneous or specific origin.

The experiments of Heidenham had gone far to establish the fact that *croupous pneumonia* had a *specific* origin, and could not be excited by simple irritation of the respiratory passages.

Reference was made to Lancerot's description of a new form of diabetes, due to changes occurring in the pancreas.

Reference was also made to several new discoveries made in physiology. Among these, Dr. J. W. S. Arnold, of New York, had demonstrated by a series of experiments that the *first sound of the heart* had a muscular origin.

Mention was also made of several comparatively new therapeutic agents, such as jaborandi, hydrobromic acid, thymol, and the alkaloids used as a substitute for formic.

## THE CLIMATIC TREATMENT OF PULMONARY PHTHISIS.

Dr. Loomis then passed to the consideration of the chief topic in his address, namely, some of the indications and considerations which should influence one in arriving at a decision with reference to the climate and locality best suited to each phthisical patient amenable to climatic treatment. [This portion of the address will be published in full in a subsequent number of THE RECORD.]

## SANITARIUMS.

In order to obtain the greatest success in the climatic treatment of phthisis, it was necessary to have sanita-



riums under the direction of intelligent physicians, where patients could go and be free from all exciting causes of the disease. For the phthical patient not the first step had yet been taken towards the proper construction and equipment of such resorts. Such sanitariums as could receive the endorsement and sanction of the leading medical men were needed in all parts of the country.

Dr. Loomis closed his address with the following practical suggestion:

#### OUR MINERAL SPRINGS.

"It seems to me that the necessities of our time are demanding the establishment not only of well-organized and thoroughly equipped sanitariums by the sea, in the mountains, in the cold regions of the North, and in the warm regions of the South, but that our mineral springs should be utilized for the cure of disease. No one doubts but they are equal, if not superior, to those of the old world; yet to-day we know more of the virtues of Carlsbad, Kissingen, Vichy, and Hunyadi waters than those of Saratoga, Virginia, Arkansas, and Colorado. Has not the time come, gentlemen, when some organized action should be taken in this matter?"

DR. C. N. PALMER, of Lockport, moved that the address be referred to the Section on Practical Medicine. Carried.

DR. BOWDITCH, of Boston, made a few remarks, and stated that in his experience for phthical patients sanatoria upon the sea-shore were injurious.

DR. JAMES B. WHITE, of Buffalo, offered the following resolution:

"Resolved, That a committee of five be appointed to confer with General Meyer upon the subject of making observations as to the existence of ozone in various localities, and take such other steps and measures in the matter as may be necessary for the success of the object."

In seconding the above, DR. DAVIS, of Chicago, briefly stated what had already been done to attain the object by the profession since 1874. After a discussion by Drs. Busey, White, Bell, Bronson, Leonard, Loomis, and Davis, the resolution was adopted.

#### REPORT OF THE COMMITTEE ON NOMINATIONS.

DR. TONER, Chairman of the Committee on Nominations, announced that they were ready to make their report.

DR. HUPP, Secretary of the Committee, read the following, which, upon motion made by Dr. James P. White, of Buffalo, was accepted and unanimously adopted:

After due consideration the Committee on Nominations respectfully report that they have nominated the following gentlemen for the various offices named, to wit:

*For President*—Theophilus Parvin, M.D., of Indiana.

*For Vice-Presidents*—A. J. Fuller, M.D., of Maine; W. F. Westmoreland, M.D., of Georgia; John Morris, M.D., of Maryland; John H. Murphy, M.D., of Minnesota.

*For Treasurer*—Richard J. Dunglison, M.D., of Pennsylvania.

*For Librarian*—Wm. Lee, M.D., of District of Columbia.

*Committee on Library*—John Eliot, M.D., of District of Columbia.

*Next place of meeting*—Atlanta, Ga.

*Time of meeting*—The first Tuesday in May, 1879.

*For Assistant Secretary*—Scott Todd, M.D., of Atlanta, Ga.

*Committee of Arrangements*—J. P. Logan, Chairman; H. V. M. Miller, G. G. Crawford, H. L. Wilson, J. F. Alexander, J. M. Johnson, Charles Pinckney, V. H. Tallioferro, J. T. Johnson, of Atlanta, Ga.

*Committee on Prize Essays*—Robert Battey, of Rome, Ga.; J. G. Westmoreland, of Atlanta, Ga.; Wm. A. Love, of Atlanta, Ga.; Robert Kidley, of Atlanta, Ga.; Henry F. Campbell, of Augusta, Ga.; J. H. Van Deman, of Chattanooga, Tenn.

*Committee on Publication*—Dr. Wm. B. Atkinson, Chairman; T. M. Drysdale, M.D., A. Fricke, M.D., S. D. Gross, M.D., C. Wister, M.D., R. J. Dunglison, M.D., of Pennsylvania; and Wm. Lee, M.D., of District of Columbia.

The Committee also report the following nominations for Chairmen and Secretaries of Sections for 1879:

I. *Practice of Medicine, Materia Medica, and Physiology*—Dr. Thomas F. Rochester, of Buffalo, N. Y., Chairman; W. C. Glasgow, of St. Louis, Mo., Secretary.

II. *Obstetrics and Diseases of Women and Children*—E. S. Lewis, of New Orleans, Chairman; J. R. Chadwick, of Boston, Mass., Secretary.

III. *Surgery and Anatomy*—Moses Gunn, M.D., of Illinois, Chairman; Dr. J. R. Weist, of Indiana, Secretary.

IV. *Medical Jurisprudence, Chemistry, and Psychology*—Dr. Wm. M. Compton, of Mississippi, Chairman; L. M. Eastman, of Maryland, Secretary.

V. *State Medicine and Public Hygiene*—Dr. John S. Billings, of District of Columbia, Chairman; Dr. J. T. Reeve, of Wisconsin, Secretary; Alabama, Jerome Cochran; Arkansas, W. B. Welsh; California, W. F. Cheeny; Colorado, C. Dennison; Connecticut, C. A. Lindsley; Delaware, Wm. Marshall; District of Columbia, T. Antisell; Georgia, J. W. Bailey; Illinois, H. A. Johnson; Indiana, James F. Hibbard; Iowa, J. A. Blanchard; Kansas, D. W. Stormont; Kentucky, S. Brandeis; Louisiana, Sanford E. Chaillé; Maine, A. P. Snow; Maryland, T. B. Evans; Massachusetts, H. I. Bowditch; Michigan, H. B. Baker; Minnesota, C. P. Adams; Mississippi, Wort Johnson; Missouri, Jacob Geiger; New Hampshire, G. P. Conn; New Jersey, E. M. Hunt; New York, A. N. Bell; Ohio, J. C. Reeve; Pennsylvania, Benjamin Lee; Rhode Island, E. M. Snow; South Carolina, R. A. Kinlock; Tennessee, T. A. Acheson; Texas, H. W. Brown; Virginia, F. D. Cunningham; Vermont, L. C. Butler; West Virginia, E. A. Hildreth; Wisconsin, J. T. Reeve; Florida, G. W. Betton; North Carolina, C. J. O'Hagen; United States Army, Joseph Smith, of Fortress Monroe; United States Navy, Joseph Wilson, of Washington, D. C.; Oregon, H. Carpenter.

*Committee on Necrology*—J. M. Toner, M.D., of the District of Columbia, Chairman; Alabama, J. S. Weatherby; Arkansas, R. G. Jennings; California, Henry Gibbons; Colorado, R. G. Buckingham; Connecticut, G. W. Russell; Delaware, L. P. Buck; District of Columbia, W. W. Johnson; Georgia, T. S. Hopkins; Illinois, J. H. Hollister; Indiana, John Moffit; Iowa, C. C. Bradley; Kentucky, L. P. Yandell; Maine, E. F. Sanger; Massachusetts, J. R. Bronson; Maryland, J. H. Hartman; Michigan, W. F. Breakley; Minnesota, C. C. Cross; Missouri, A. J. Steele; New Jersey, John Blaine; North Carolina, N. J. Pitman; Louisiana, Samuel Logan; New York, J. P. Gray; Ohio, Thad. H. Reamy; Oregon, ———; Pennsylvania, Thomas H. Helsby; Rhode Island, C. H. Fisher; South Carolina, Manning Simmons; Tennessee, Thomas Mences; Texas, J. H. Stalaker; Virginia, L. S. Joynes; Wisconsin, D. Mason;

Vermont, O. F. Fassett; Mississippi, P. F. Whitehead; Kansas, C. V. Mattram; New Hampshire, L. G. Hill; West Virginia, Robert W. Hazlett; United States Army, J. J. Woodward, of Washington, D. C.; United States Navy, Joseph Wilson, of Washington, D. C.; Nebraska, J. H. Peabody.

**Judicial Council.**—To fill a vacancy caused by death, John P. Gray, of Utica, N. Y.; in place of the seven whose terms expire at this meeting, D. A. Linthicum, of Arkansas; Foster Pratt, of Michigan; A. Woodward, of Connecticut; J. M. Toner, of District of Columbia; J. H. Van Deman, of Tennessee; S. M. Benham, of Pennsylvania; R. N. Todd, of Indiana.

#### REPORT ON RECOMMENDATIONS IN EX-PRESIDENT BOWDITCH'S ADDRESS.

Dr. N. S. Davis, Chairman of the Committee, made a somewhat lengthy report, and closed as follows:

"After a careful review of the whole subject, indeed by many years of careful observation in the Sections of the Association, the undersigned would recommend no change in the present by-laws and ordinances regulating the working of the Sections, except the striking out of the paragraph in Section 11 of the by-laws, commencing with 'Papers appropriate to the several Sections,' etc., and inserting in its place the following:

"It shall be the duty of every member of the Association, who proposes to present a paper or report to any one of the Sections, to either forward the paper, or a title indicative of its contents and its length, to the Chairman of the Committee of Arrangements at least one month before the annual meeting at which the paper or report is to be read. It shall also be the duty of the President and Secretary of each Section to communicate the same information to the Chairman of the Committee of Arrangements concerning such papers and reports as may come into their possession or knowledge for their respective Sections the same length of time before the annual meeting. And the Committee of Arrangements shall determine the order of reading or presentation of all such papers, and announce the same in the form of a programme for the use of all members attending the annual meeting. Such programme shall also contain the rules specified in the by-laws and ordinances concerning the consideration and disposal of all papers in the Sections."

"All of which is respectfully submitted.

N. S. DAVIS,  
S. D. GROSS."

Dr. Bowditch presented the following *minority report*:

"The undersigned still holds to the opinion that the submission to trained experts of all papers read or presented to the various Sections of the Association would tend to make our published Transactions more interesting, and vastly to increase their scientific merits, although perchance making them less bulky.

"He believes, moreover, that some other of the amendments suggested by him would ultimately be of service to the Association.

"He admits the cogency of the arguments of the majority of the committee in regard to permanent membership.

"He still adheres to the idea that the time spent in discussions in regard to the by-laws in any scientific body is commonly so much time wasted, which should be spent in more congenial and appropriate work, and that no changes, even though deemed very important by a few, should be made in the organic law, if they do not meet with favor with a large majority of the body.

"And, finally, in full confidence that with our present by laws, if the Chairmen and Secretaries of the Sections and of the Committee of Arrangements will do thoroughly their respective duty, the meetings of this Association and its transactions will annually grow better, as they have done in the past, the undersigned will not oppose the report of the majority of the committee.

HENRY I. BOWDITCH."

The majority report was unanimously adopted.

#### STATE MEDICINE AND PUBLIC HYGIENE.

Dr. J. L. Cabell, of the University of Virginia, Chairman of the Section, delivered an address, in which he maintained that the establishment of a general Board of Health was the indispensable measure to any systematic effort to inaugurate State medicine in any of the States of the Federal Union.

As to the value of sanitation in general in diminishing the death-rate, reference was made to the address of Mr. Edwin Chadwick, delivered before the British Social Science Association at Aberdeen, September 13, 1877.

Speaking with reference to the maintenance of the purity of the air within and around dwellings, Dr. Cabell remarked that the evidence of advance in public hygiene consisted not so much in the discovery of new facts or principles, as in more careful, exact, and honest methods of sanitary engineering, in conformity with well-known laws of sanitary science. It could scarcely need be said that one of the most fruitful sources of the impurity of the air around dwellings, and consequently of the air within dwellings, since the latter was constantly being replaced by the former, was the damp condition of the ground, which, however well drained of subsoil water at first, was liable to subsequent contamination with liquid filth, whether arising from slops thrown upon the surface of yards or gardens, or from the dejections of animals. A soil well aerated by proper water-drainage, would, in a measure at least, oxidize the organic matters, and mitigate the generation of malaria. It would not, however, be safe to rely upon that to disinfect the excrement-sodden soil in the streets of cities, and it became an important problem of sanitary engineering how to protect the atmosphere of cities from that source of contamination. That end could probably be secured by the best asphalt pavements, such as had been largely used in some of the cities of Europe, and had been successfully introduced in some parts of Brooklyn, and on the principal avenues of the national metropolis. No water or filth could penetrate them, and they were easily cleaned at less expense than any other pavement. A necessary condition, however, of the beneficial action of impervious pavements was the absolute freedom of the subsoil from the contamination which might arise from defective sewers, or from percolation of the contents of cesspools.

Reference was then made to what had been accomplished by sanitary measures in preventing the spread of contagious diseases, and from that point Dr. Cabell proceeded to discuss at considerable length the theory of *contagium vivum*.

The address was referred to the Section on State Medicine and Public Hygiene.

#### QUESTION OF PRIVILEGE—SHORTENING IN FRACTURES.

Dr. Lewis A. Sayre, of New York, rose to a question of privilege, and asked that he be recorded upon the minutes as opposed to the passage of the resolution, adopted by the Association at its meeting held in Chicago in 1877, relating to the occurrence of shortening in fracture of long bones.



The purport of the resolution was that shortening was the rule, in spite of all treatment, and he wished to be recorded as opposed to the doctrine that fractures could not be treated without such result.

The request was granted.

The Association then adjourned to meet on Friday, at 9.30 A.M.

#### FRIDAY, JUNE 7TH.—FOURTH DAY.

The Association was called to order at 9.30 A.M. by the President, Dr. Richardson.

#### COMMITTEE ON OZONE.

Pursuant to resolution offered by Dr. White in yesterday's session, the President announced the Committee on Ozone as follows: Dr. N. S. Davis, of Illinois, Chairman; Dr. J. S. Billings, of United States Army; Dr. W. N. Geddings, of South Carolina; Dr. J. M. Toner, of the District of Columbia, and Dr. S. M. Bemis, of Louisiana.

#### MEMBERS BY INVITATION.

Dr. ROCHESTER, Chairman of the Committee of Arrangements, announced the following as members by invitation: Drs. W. J. A. Case, of Hamilton, Ont.; George N. Burrell, of Brigham Hall, Canandaigua; George Waters, of Colberg, Ont.; H. C. Hill, of Lockport, N. Y.; V. A. Ellsworth, of East Otto, N. Y.; A. A. Hubble, of Leon, N. Y.; John W. Whitbeck, of Rochester, N. Y.; Milan Baker, of Warsaw, N. Y.

The Secretary read a letter of regret from Dr. George E. Fenwich, of Montreal, which was ordered on the minutes.

#### DUTY OF THE COMMITTEE ON NECROLOGY.

The following resolution was offered by Dr. J. S. HIBBARD, of Indiana:

"*Resolved*, That hereafter it shall be the duty of the Committee on Necrology to confine their reports to the death of medical men who have been members of this Association, and at the time of death were still in good fellowship or honorably separated from the Association." Adopted.

#### ORGANIZATION OF STATE BOARDS OF HEALTH.

Dr. A. N. BELL, of Garden City, moved the continuance of the committees appointed two years ago for the organization of State Boards of Health. Carried.

#### METRIC SYSTEM—COMMUNICATION FROM THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

The following communication from the Medical Society of the State of Pennsylvania was read by the Secretary:

"At the annual meeting of this body held in Pittsburgh, May, 1878, it was unanimously

"*Resolved*, That the Medical Society of the State of Pennsylvania, recognizing the advantages of the metric system from its universality, simplicity, and scientific character, does recommend the use of the same to the members of this Society, and urges them to familiarize themselves with it, and to advise their students to use it exclusively when they commence their medical career.

"*Resolved*, That in all communications made to this Society, in which reference is made to weights and measures, the metric system only should be used.

"*Resolved*, That the Secretary of this Society is instructed to bring this action of this Society to the

notice of the American Medical Association at its next meeting, and urge upon the National Association a similar action."

On motion by Dr. Atkinson, and seconded by Dr. N. S. Davis, the communication was received and placed upon the minutes.

#### MEDICAL UNIFORMITY—COMMISSIONERS AND DELEGATES TO EUROPE.

On motion, Drs. Marion Sims, Thomas Drysdale, and E. Seguin, were confirmed as delegates to Europe, upon the question of medical uniformity, to report next year.

#### COMMITTEE ON THE ADDRESS OF THE CHAIRMAN OF THE SECTION ON PRACTICAL MEDICINE.

Dr. N. S. DAVIS, of Chicago, offered the following resolution, which was adopted:

"*Resolved*, That the Section on Practical Medicine, Materia Medica and Physiology recommend the appointment by the American Medical Association of a committee of five members, to whom shall be referred so much of the recommendations in the address of the President of that Section as relates to the establishment of proper sanatoria for consumption, and the more accurate utilizing of the various mineral waters of our country, with instructions to report at the next meeting of the Association."

The President appointed the following members as such committee: Dr. H. I. Bowditch, of Massachusetts; Dr. A. N. Bell, of New York State; Dr. J. L. Cabell, of Virginia; Dr. S. E. Chaillé, of Louisiana; and Dr. Charles Dennison, of Colorado.

#### DELEGATES TO FOREIGN SOCIETIES.

The President announced the following delegates: *To European Medical Societies*—Drs. Sims, Drysdale, Seguin, Daly, Halberstadt, Levis, and W. H. Pancoast. *To the Canadian Medical Association*—Drs. Brodie, Todd, E. N. Brush, and W. Clarke.

#### LEGAL RELATIONS OF THE INSANE.

The following resolutions concerning certain legal relations of the insane, offered by Dr. Foster Pratt, of Michigan, in Section V., and referred to the Association, were received and adopted:

"*Resolved*, That the personal restraint of the insane is an essential element of the medical treatment of their disease, the use of which, as a therapeutical agency, may be justified by their insanity, just as the use of it as a public agency, for the prevention of injury to person or property, is justified by their dangerous conduct.

"*Resolved*, That while none question the necessity for specific statutory provisions to regulate the restraint of those insane persons who are wholly or partly a public charge, we maintain

"That it is the duty of relations and friends, and it is also their natural and inherent right, whether declared or understood by statute, to retain and to care for their sick or insane relations as a private patient at his or their expense, in his or their home, or in a legally recognized and regulated hospital; and

"That the exercise, by them, of so much restraint as is essential to their proper treatment of his disease is not a violation of his rights of personal liberty; and

"That their duty and right to exercise such remedial restraint are subject to State surveillance or legal limitations only so far as may be necessary to prevent their neglect of that duty or to punish their abuse of the right."

# REPORT OF COMMITTEE APPOINTED TO SECURE THE FORMATION OF STATE BOARDS OF HEALTH.

"Your committee, consisting of the President and Permanent Secretary, who are required to report annually the results of their efforts for the organization of State Boards of Health, respectfully report that they have addressed the Governor of each State where a Board of Health has not been organized with a suitable memorial. A few Executives have courteously acknowledged this communication and expressed their earnest desire to further our efforts. We are happy to announce that three additional State Boards have been organized, making nineteen in all, viz.: Alabama, California, Colorado, Connecticut, Georgia, Illinois, Kentucky, Louisiana, Massachusetts, Maryland, Michigan, Minnesota, Mississippi, New Jersey, North Carolina, Tennessee, Rhode Island, Virginia, Wisconsin." Adopted.

## NEW SECTION.

Dr. X. C. Scott, of Ohio, called up the resolution of last year, creating a new Section of Ophthalmology, Otology, and Laryngology, to be known as Section VI., and moved its adoption. Carried.

On motion of Dr. E. Smith, of Detroit, Dr. H. Knapp, of New York, was made Chairman of the new Section, and X. C. Scott, of Ohio, was made Secretary.

# ADDRESS OF DR. WALTER KEMPSTER, OF OSHKOSH, WISCONSIN, CHAIRMAN OF THE SECTION ON MEDICAL JURISPRUDENCE, CHEMISTRY, AND PSYCHOLOGY.

Dr. KEMPSTER first considered the pathological brain lesions characteristic of insanity. The blood-vessels were changed in appearance, the morbid process beginning in the walls of the capillaries. Miliary aneurisms occurred, and as they ruptured speedily became the centres for changes in the brain tissue. The interstitial tissue of the brain was also affected, and changes were also found in the nerve-cells in the way of hypertrophy, atrophy, nucleus becoming diseased. There was also change in the substance of the cell. The cell changes might be so extensive that in the place of nerve-cells there were seen masses of granular material having no relation whatever to the appearance of a normal cell. With reference to the membranes of the brain, Dr. Kempster thought that they were quite uniformly found affected in all cases of insanity, and that there existed adhesions between the membranes and the brain, especially over its anterior portions, thus affecting the motor centres. Absence of such adhesions at the posterior part of the brain was a noticeable feature.

The question of

## LOCALIZATION OF FUNCTIONS

was discussed at some length, and the cases reported by Charcot, E. C. Seguin, and others were referred to as evidence of the correctness of the doctrine. Reference was also made to the teachings of Brown-Séquard and Schiff in opposition to the theory of localization of functions. Dr. Kempster believed that the weight of accumulative testimony went to show that the localization doctrine was correct.

Reference was made to a case of

## TEMPORARY AND TRANSIENT APHASIA

which had fallen under his observation. It was believed to be due to cerebral anæmia.

Special mention was made of two cases in which convulsions could be produced by pinching the dura

with a pair of forceps through an opening made in the skull by a fracture.

In the department of

## MEDICAL JURISPRUDENCE

nothing had occurred during the past year worthy of special mention, unless it was that Wisconsin lawyers and a judge had recognized the fact that the "knowledge test" was unreliable.

Dr. KEMPSTER expressed the hope that the time would come when the court would call expert testimony, if the obscurity of the case seemed to make it necessary.

The address was referred to the Committee on Publication.

## TREASURER'S REPORT.

Dr. RICHARD J. DUNGLISON, Treasurer, reported as follows:

"The Treasurer has the honor to report a balance in the treasury at the end of the fiscal year of \$2,446.02. This amount is much larger than would have been found there had any deduction been made to pay the Permanent Secretary an honorarium for his services for the previous year. For the first time for a number of years the Association at its last meeting omitted to pass a resolution appropriating money to this end, and the Treasurer was thus left without authority to devote the funds of the Association to such a purpose. The annual amount, whatever it might be, voted by that body to its Secretary, was an honorarium, and not a salary, the Association having decided in 1873, upon the adverse reports of a committee appointed in 1872 to decide upon the propriety of making the office a salaried one, that 'no amount of specified salary be attached to the office.' Ever since that time an honorarium, not a salary, has been paid him by the Treasurer, but never without the authoritative order of the Association, as conveyed by annual resolution.

"The Treasurer is in constant receipt of applications from members for volumes of the Transactions of the Association which are entirely out of print. As some of the members are in possession of scarce volumes, which they may not wish to retain, the Treasurer will willingly act as a medium of exchange, and thus accommodate those who are anxious to complete their sets." [Here followed a financial statement.]

The report was adopted and referred to the Publication Committee.

The annual report of the Publication Committee was received and adopted.

## HONORARIUM TO THE PERMANENT SECRETARY.

Dr. N. S. DAVIS, of Chicago, moved that the Treasurer be authorized to draw his warrant and pay to the Permanent Secretary the sum of \$700 as an honorarium for the faithful performance of his duties. Carried.

## REPORT OF COMMITTEE ON PRIZE ESSAYS.

"Your committee to determine the merits of prize essays would respectfully report: That they have had three separate papers submitted to their inspection. Two of these papers present subjects of very great interest, and show original researches, but are too imperfect, in the estimation of the committee, to command a prize. The remaining paper, in the judgment of your committee, is fully up to the requirements. Indeed, the paper is so elaborate as to fill a large space in the volume of the Transactions of the Association. The paper should be considered as *two* and not as *one*. The analysis of 789 cases of operation on the carotid



artery, and the careful and minute measurements of the artery and its branches in one hundred and twenty-one subjects, showing the range of variation and the percentage of the same, followed by inferences bold and original, naturally constitutes a paper complete in itself. Another one on the same plan with reference to the innominate and subclavian, being an analysis of 300 cases, and the observation of fifty-two subjects, is presented to us in such a manner, that we may consider the whole as one prize, or they may compete for both.

"Your committee believe that both prizes should be awarded to the two essays by one person. The motto is, 'Tempora mutantur et nos mutamur in illis.'"

E. M. MOORE, Chairman;  
THOS. LOTHPROP,  
H. R. HOPKINS,  
W. W. MINER."

The recommendation of the committee was unanimously adopted.

On opening the sealed envelope the name of the successful essayist was found to be DR. JOHN A. WYETH, of New York City.

#### THE LIBRARIAN'S REPORT

was read and referred to the Committee on Library.

On motion made by DR. BRODIE, of Detroit, the Treasurer was authorized to pay to the Librarian the sum of two hundred dollars, to be used by him according to the recommendation contained in his report—namely, for binding pamphlets and loose papers.

On motion of DR. DAVIS, of Chicago, the recommendation of the Librarian adding Dr. J. M. Toner, of Washington, to the Library Committee, was adopted.

DR. J. M. KELLER, of Arkansas, offered the following, which was laid over for one year:

*Resolved*, That in future the Committee on Nominations shall present the name of no person for appointment or election to office or position, save on the Committees on Nomenclature and Climatology, unless the party nominated be in attendance on the Association at the time."

#### PROPOSED NEW SECTIONS.

DR. J. J. CALDWELL, of Maryland, offered a resolution creating a new Section upon "Neurology and Electrology." Action deferred for one year.

DR. MADDOX, of Baltimore, Md., offered a resolution creating a Section on "Diseases of the Genito-Urinary Organs, including Dermatology and Syphilis." Action deferred for one year.

#### IN MEMORIAM.

DR. J. M. TONER, of Washington, offered the following preamble and resolutions, which were adopted:

"Whereas, A short time previous to the meeting of this Association, Professor Joseph Henry, late Secretary of the Smithsonian Institute, departed this life full of years and honors; therefore, be it

*Resolved*, That the American Medical Association hereby offers its tribute of respect to the name of this illustrious man, whose pure and noble life, as well as his great attainments and actual discoveries, have long since placed him at the head of the men of science in this land.

*Resolved*, That while we share the common grief of all his fellow-countrymen on the occasion of his death, we believe his name will be established in the memory of posterity, and we hold up his example for the emulation of all lovers of the truth, now and hereafter.

*Resolved*, That a copy of these resolutions be trans-

mitted to the Regents of the Smithsonian Institute and to the family of the deceased."

#### AMENDMENTS TO THE BY-LAWS.

DR. DAVIS, of Chicago, offered a resolution with reference to the following amendments proposed by him last year, which was adopted:

"Strike out all of third paragraph, Section VIII.: 'It shall be the duty of every member of this Association, who learns that any existing medical school departs from the published conditions of graduation, to report the fact at the annual meetings; and, on proof of the fact, such school shall be deprived of its representation in this body.'"

"Strike out all of second paragraph, Section IX.: 'This Association recognizes as a "regular organized" medical college one that has been represented at any meeting, and that complies with the rules and directions found in the published *Transactions*, vol. xiii., page 33.'"

DR. HITCHCOCK, of Michigan, offered an amendment to the by-laws with reference to the nomination of officers.

Laid over for one year.

DR. RICHARDSON, with complimentary remarks, then introduced DR. PARVIN, the President-elect, who, in most eloquent and appropriate words, addressed the Association and returned thanks for the high honor it had conferred upon him.

DR. J. H. VAN DEMAN, of Tennessee, offered resolutions, which were unanimously adopted, expressive of the appreciation of the hospitalities and courtesies extended to the members of the Association by the medical profession and the citizens of Buffalo, and also thanking the officers of the Association for the promptness with which they had discharged their several duties.

On motion, the President declared the Association adjourned, to meet in Atlanta, Ga., on the first Tuesday in May, 1879.

#### NEW YORK MEDICAL JOURNAL ASSOCIATION.

*Special Meeting, May 24, 1878.*

DR. ROBERT F. WEIR, PRESIDENT, IN THE CHAIR.

#### THE RATIONAL TREATMENT OF STRICTURE OF THE MALE URETHRA.

DR. S. W. GROSS, of Philadelphia, on invitation, read a paper upon the above subject, which is published in full in the present number of THE RECORD. [See p. 461.]

The paper being before the Association for discussion.

DR. J. W. S. GOULEY remarked that he could endorse a majority of the statements made by Dr. Gross, but that there were some upon which he wished to make a few remarks.

#### TREATMENT BY GRADUAL DILATATION.

*First*, with reference to gradual dilatation, which Dr. Gross had rejected entirely as a method of cure. In order to speak intelligently upon the treatment of stricture of the male urethra, it was necessary to come to some understanding with reference to classification. If strictures were divided into two general classes—1. Idiopathic, such as resulted from some form of urethritis, and 2. Traumatic—it would be found that the two varieties demanded somewhat different methods of treatment. Again, with reference to idiopathic

strictures, *permeability* and *impermeability* by means of instruments varied the treatment.

The *situation* of the stricture also varied the treatment, and those which occurred in the deep portions of the urethra demanded a different method from those which were situated in the pendulous portion of the organ.

#### TREATMENT OF DEEP-SEATED STRICTURES.

With reference to deep-seated idiopathic stricture, Dr. Gouley preferred to adhere to the old plan of treatment by gradual dilatation. Strictures of recent formation were amenable to that plan of treatment, and even old and indurated strictures, he firmly believed, should be *first* treated by gradual dilatation. He thought that the cutting operations should not be made until gradual dilatation had been thoroughly tested.

The stricture should be dilated to the *fullest* capacity of the portion of the urethra in its immediate vicinity. In ascertaining the capacity of the urethra it should be *fully distended*, and then dilatation of the stricture should be gradually carried up to that point. It was of trifling importance as to what method was employed; whatsoever instrument would effect the object was acceptable.

It had been suggested to Dr. Gouley by a Russian army surgeon, Wywodzoff, that when dilatation was carried to that extent there was really a rupture of stricture tissue; that in reality the stricture was *divulsed*. Dr. Gouley thought it possible that such was the case, but whatever might be the facts with reference to that point, he had had cases under observation in which recontraction had not occurred at the end of ten or twelve years after complete distention had been made, and maintained for one or two years. He should therefore continue to believe in gradual dilatation as a *means of cure* for stricture of the urethra until he had more convincing proof of its futility than had yet been offered.

Dr. Gross.—Did I understand Dr. Gouley to say that dilatation is to be limited by the size of the meatus?

Dr. Gouley replied that with his own instrument he was able to overdistend the urethra at the seat of the stricture without in any way disturbing the meatus; and that he never interfered with the meatus except there were special indications for its division.

#### DIVULSION OF THE URETHRA.

With reference to *divulsion* Dr. Gouley agreed substantially with the views expressed by Dr. Gross.

Divulsion was a *good* operation for those strictures, even though indurated, which were situated in the perineal portion of the urethra, but it was a *bad* operation when applied to those strictures which were situated between the posterior extremity of the fossa navicularis and the peno-scrotal junction. Free divulsion of stricture in the fixed portion of the urethra, had, with him, as well as others, been a successful operation. He preferred that it should not be done, as a rule, with a double-bladed divulsor. His method had been, in cases of narrow stricture, to introduce a filiform bougie into the bladder, pass over it a tunnelled sound—the smallest, perhaps—and then follow with a larger and larger instrument until No. 14 or 15 was reached, and then with an ordinary sound carry the divulsion as far as might be done with the instruments at hand. Of course, in such an operation, the meatus was to be divided if it interfered with the introduction of instruments. Then, following the example of Reybard, he employed a urethral expander and carried divulsion up to the point desired. The important

point in the operation was to make the urethra four or five numbers larger than the natural size at the seat of, stricture, in order to allow for the subsequent contraction which would take place in the course of one or two years. In that manner he had performed divulsion in something over 300 cases by simply wedging in conical sounds one after another. He thought it was unnecessary to make an enormous rent; a number of small rents in the cicatricial tissue was more in the aggregate than a single large one.

#### INTERNAL URETHROTOMY.

Under what circumstances was internal urethrotomy to be performed? Dr. Gouley believed that in some cases a great deal of good could be done by the operation; but, although a great deal of good could be done, a more than corresponding amount of harm had been done by its improper use. Unfortunately, Reybard, who had cut the urethra so extensively, had entirely too many followers, both in this country and in England. Dr. Gouley had seen cases in which the urethra had in reality been destroyed, throughout its entire length, by internal cutting operations. By such repeated cutting operations the spongy tissue of the urethra was blocked up with new interstitial tissue, and became like an old india-rubber tube which had lost its contractility and distensibility. For those strictures situated in the pendulous portion of the urethra, internal urethrotomy was an excellent operation; but for strictures situated in the deeper part of the canal it was usually unnecessary.

In his entire experience, commencing in 1851, he had performed internal urethrotomy in *not to exceed* forty-three cases, and of that comparatively small number he boasted, while there were many young men in the profession who had performed it a much greater number of times.

With reference to the manner of making the incision, that from behind forward, in cases of permeable stricture, was a most excellent method, but in very narrow strictures it is necessary to incise from before backwards. With regard to the instruments to be employed, he favored Maisonneuve's urethrotome, or any of its modifications, for the antero-grad, and Civiale's, or any of its modifications, for the retrograde operations.

In reply to questions from Dr. Gross, Dr. Gouley said that the object of divulsion was the same as that of internal urethrotomy, but that he preferred it to internal urethrotomy because the latter was a much more dangerous operation.

Dr. Gross.—Do you think divulsion restores the calibre of the urethra as readily as does internal urethrotomy?

Dr. Gouley said that he believed it did, and that divulsion had given him better results than he had obtained by internal urethrotomy in the treatment of strictures in the deeper portion of the urethra.

What he had termed the "cicatricial splice" was provided for equally as well, but when formed it must be kept a little larger than the other portions of the canal.

Dr. Gross remarked that he was unable to understand how the "cicatricial splice" in the deeper portions could be better provided for than by internal urethrotomy.

Dr. Gouley remarked that he did not think it could be *better* made by divulsion than by internal urethrotomy, but that divulsion was a much safer and more easily performed operation, and one which in his hands had yielded more favorable results.

With reference to dividing the meatus, he regarded



it as an unnecessary operation when it held a normal relation to the posterior portion of the urethral canal.

Dr. OTIS remarked that he was glad to find himself thoroughly in accord with Dr. Gross on nearly all important points. In answer to a direct question by Dr. Gross, with reference to the normal calibre of the meatus urinarius, he would say that he was opposed to all standards of measurement for the meatus and the urethra. Because the average size of the meatus was twenty-four or twenty-two millimetres, it should not be taken as a basis for operations. No average should ever take the place of exact individual measurements for either meatus or urethra. In regard to the statement that a narrow meatus was required to increase the projectile power of the urethra, he would say that the urethra was simply a conducting tube from the bladder to carry the urine to a convenient distance, and not for the competitive projection of urine. In its normal condition the urine passed through it, and was thrown to a proper distance. He had repeatedly divided the meatus, as far as could be done without making a hypospadias, and yet the urine was expelled with considerable force quite three feet. Practically, he believed it to be a very great mistake to regard the average circumference of the meatus as a guide to the calibre of any urethra. It had been found, through the repeated observations of Prof. THOS. R. BROWN, of Baltimore, and others, that in the fœtus, and in the new-born child, there was no such thing as a fossa navicularis, but that the urethra was of uniform size from the bulbous enlargement down to the orifice, unless distended through the influence of a contracted meatus. With reference to dividing the meatus urinarius, cases were frequently met with in which it was so small that division became necessary, and such division was a recognized necessity by those who did not approve of cutting operations. Every surgeon had met with such cases more or less frequently, and had not hesitated to divide the meatus when it was narrowed so as to interfere with the proper treatment of the canal behind it. There occurred, also, various reflex disturbances of grave character as a consequence of contracted meatus urinarius. Division of the contractions under such circumstances became a necessity before cure of the reflex phenomena could be effected. Sir Henry Thompson had merely mentioned the fact that certain obscure urinary troubles, which had existed for a long time, had been cured by division of the meatus urinarius, but Dr. Otis was the first, in late years, to direct special attention to this fact and report cases. He supposed that it was original with himself until a recent thorough study of Civiale's writings revealed the fact that he (Civiale) had, in his *Traité Pratique des Maladies Genito-urinaires*, 1843, called attention to the point, and had thus anticipated Dr. Otis in every respect. Dr. Otis believed that he was the first to exhumed those important observations, which had quite dropped out of the literature of the profession, and which so fully confirmed his own published experience. Civiale had spoken of contraction of the meatus urinarius as a cause of profound disease of the genito-urinary apparatus. He had recognized it as a cause of neuralgia of the testicle, cystitis, orchitis, etc., etc., and Dr. Otis maintained that it was for the cure of such cases the meatus urinarius should be divided until its calibre equalled that of the canal behind it. In many cases the reflex irritation from a contracted meatus was such that it became necessary to divide the meatus until its calibre was equal with that of the fossa navicularis before the irritation would cease.

Again, Dr. Otis divided the meatus in cases of

gleet. He had found it necessary to make the orifice so free that irritating fluids could not be retained at that point, and thus keep up the gleet indefinitely. In most cases, if the meatus was kept free so that no irritating fluids could be retained in the urethra, the formation of strictures would often be avoided, and it was at that point that he would begin the "rational treatment" of stricture. The rational treatment consisted in guarding against its formation, and he believed that the time would arrive when close strictures would be considered an opprobrium of surgery. It was a well-known fact that urethral stricture occurred as a direct consequence of gonorrhœa, and yet this fact seemed to be lost sight of in practice. Surgeons treated a gonorrhœa during its continuance, and dismissed the patient in complete ignorance that in all probability the foundation of strictures, more or less numerous, had been laid. In a few months, perhaps years, a gleet made its appearance—the legitimate result of a stricture already formed—and still no warning was given. An injection was prescribed or a copaiba mixture, and the stricture left to go on contracting until finally retention of urine occurred, and the patient was coolly told that he had a stricture, which possibly had already done serious damage to bladder or kidneys, or both. Dr. Otis regarded it as the fault of the surgeon that stricture in such cases should be permitted to occur without warning or treatment, and especially so, as discovery of incipient stricture was easy, and its removal rapid, almost painless, without danger. When stricture of the urethra had occurred, Dr. Otis believed that it was decidedly the best treatment, instead of waiting for serious trouble, to restore the calibre of the canal to its natural size as soon as possible by the operation of internal urethrotomy.

He regarded it as a matter of great importance whether or not the patient was obliged to visit the office of his physician once or twice a week for several years, and then go away with the expectation of returning for further treatment. The stricture was composed of contractile tissue; it did contract; its tendency was always to contract, in spite of bougies and sounds; and the best treatment for such tissue was division with the knife. His experience had varied somewhat from that of some, in the fact that his operations had not been followed by disastrous results. For, out of 600 operations in about 400 cases, he had not seen a single fatal result, and the strictures had disappeared in every instance where the division had been complete. Of these cases there were about fifty in which the operation was performed from one to seven years ago, and up to the present time, as far as he was able to ascertain, they had remained free from all recontraction.

Dr. E. L. KEYES believed that the urethra should not be explored for stricture until some symptoms made it necessary. The first principle laid down by Dr. Gross, namely, that in cases of stricture of the urethra the expansibility of the canal should be restored, Dr. Keyes regarded as undoubtedly an axiom, because symptoms generally did not yield until that had been effected. When stricture produced symptoms, he would proceed to remove them by gradual dilatation with conoidal steel instruments. The size to which the urethra should be brought, he regarded as a matter not of paramount importance so long as the symptoms were removed. He believed gradual dilatation to be an effective method of treatment, because he had had many cases under observation in which by that method symptoms had been relieved, and had not returned.

Again, *the safety* of an operation was a question of great importance. If a man could be cured of a slight gleet by dilating the urethra, why not cure him by that method rather than submit him to a more dangerous one? So far as inconvenience to patients was concerned, in the frequent passage of an instrument, there were but few who could not quickly learn to use the sound, and thus the objection to the method of treatment, because it necessitated too frequent visits to the surgeon, was overcome.

Dr. Keyes did not disapprove of internal urethrotomy, but he did not favor it as a *substitute* for other methods; he regarded it simply as an adjunct to other methods, and one which could be resorted to for the relief of certain conditions of the stricture, such as resiliency and special undilatable nature of strictures found very far forward in the canal.

But the operation should be employed preferably for the strictures situated in the anterior portion of the canal, as hemorrhage, if it occurred, could then be easily controlled. When serious hemorrhage occurred after the cutting operation in the deeper portions of the urethra, it could not be readily controlled, and that fact was an important objection to the performance of the cutting operation in those parts.

When, therefore, gradual dilatation was not applicable to close stricture in the deeper portion of the urethra, he resorted to *divulsion*.

With reference to the meatus there was no reason whatever for cutting it, unless such an operation became a necessity in order to afford relief from symptoms, or for the management of strictures lower down. If the symptoms did not cease, and especially if a small pocket was found in the skin, the meatus by all means should be slit.

Dr. Keyes recognized it as a fact that there were certain strictures which were not removed by any amount of cutting. As evidence, cases were cited in which he had cut the urethra until it admitted 42 French, and yet 40 bulb detected rib like prominences in the cut portion of the canal.

He believed, finally, that in case of *tight stricture deep in the canal*, a necessity for the occasional use of a dilating instrument indefinitely in the future existed in a majority of cases after any form of treatment whatsoever, external or internal urethrotomy, divulsion, or dilatation. But he was certain, also, that occasional permanent cures were effected in that region by each of the methods, and was confident that gradual dilatation was the safest and the best. Making positive rules for the whole canal by the results obtained in treating strictures of large calibre in the anterior section, he believed was begging the question.

Dr. WEIR thought that, when speaking of the treatment of stricture of the urethra, a distinction should be made according to the portion of the canal in which the contraction was situated. He did not believe that it had yet been proved that internal urethrotomy was a better operation than gradual dilatation, so far as ultimate results were concerned, and certainly was not so safe. Reference was then made to statistics given by Teevan, of London, who had collected 1,095 cases with only six deaths. Dr. Weir thought that such was not a proper ratio to put forth, with reference to the success of the operation of internal urethrotomy, because in the collection were 291 cases reported by Mastin, of Mobile, without any deaths. The reason why Dr. Mastin had been so successful in such a large number of cases was because the strictures occurred for the most part in the anterior portion of the canal, where the cutting operation could be performed with almost absolute safety. It was well

known that strictures returned after external urethrotomy, and Dr. Weir did not believe that absolute guaranty could be safely given against their return after any operation or method.

He thought the advocates of the cutting operations were not able to prove that every stricture of large calibre, so-called, would contract and form a tight stricture. He further believed that there was a possibility of error in regard to statistics obtained from private practice, and regarded statistics made up from hospital cases as more valuable, because the unsuccessful as well as the successful cases were included. He then gave an analysis of cases of stricture treated in the New York, St. Luke's, and Roosevelt Hospitals. He had collected 150 cases, and among those 14 deaths occurred. There were 51 cases treated by *internal urethrotomy*, and of those 22 were tight strictures, admitting only a filiform bougie. In 10 cases the average-sized bougie used was No. 10. In 31 cases the stricture was situated at the bulbo-membranous junction. In 11 cases the stricture was situated in the front portion of the urethra.

Dilatation was resorted to in 47 cases and with only a single death.

There were 28 cases of external urethrotomy and six deaths.

There were 51 cases of internal urethrotomy and three deaths.

Dr. ORIS remarked, in explanation, that in the greater proportion of his cases in which he had performed internal urethrotomy, the stricture had been situated within the anterior four inches of the urethra. He believed it would be found that in the greatest proportion of cases, stricture occurred in the anterior portion of the canal.

He believed it to be true also that the greatest portion treated by dilatation of the deep urethra were spasmodic and dependent upon reflex irritation from anterior strictures, which had been overlooked.

A very common mistake made by surgeons was to institute treatment for deep-seated stricture where no examination for anterior stricture had been made; the difficulty, as a rule, was in the anterior portion of the urethra, and when the strictures situated there were cured, the supposed contraction, in nine out of ten cases, at the deeper portion of the canal had disappeared. The condition at the deeper portion of the canal, in such cases, was a spasmodic stricture, the result of irritation produced by the anterior stricture. He was opposed to urethrotomy in the deep portion of the urethra, unless it was absolutely necessary, and its necessity depended very much upon the fact whether or not the anterior portion of the canal was perfectly free from contractions. No operation should be performed upon the deep portion of the urethra until strictures in the anterior portion had been thoroughly removed.

Dr. GUOSS remarked that no surgeon should determine the existence of stricture in the deeper portion of the urethra until its anterior portion had been relieved entirely of disease, whatsoever the disease might be—stricture, hyperæsthesia, etc., etc. In the rational treatment of stricture the object should be to overcome all irritability and hyperæsthesia even before exploring the urethra for any purpose.

Dr. WEIR had suggested the possibility of error in statistics gathered from private practice as compared with hospital cases. Of Dr. Gross's cases seventy-five were in private practice and no deaths occurred among them. He had met with a mortality as high as three in twelve cases operated upon in the Blockley Hospital, Philadelphia.



With relation to dilatation, divulsion, and internal urethrotomy, Dr. Gross simply maintained *that no gentleman in the room had ever cured a case of stricture of the urethra by gradual dilatation.* The symptoms were perhaps relieved, and the patients were made comfortable, but when the use of the instrument was ceased for a short time the symptoms returned. Simple gradual dilatation, especially as practised by some surgeons in New York who stopped dilatation with the size of the instrument which distended the meatus, was useless as a *method of cure.* Dr. Gross was willing to stake his reputation upon the statement, and asked the appointment of a committee by the President to test it, that while dilatation did good, relieved symptoms and made the patient comfortable, it *did not* rid him of the cicatricial tissue which was deposited in the submucous, the mucous, and the erectile tissue.

The result of inflammatory action and the deposit of new material was adhesion of the normal longitudinal folds in the mucous membrane of the urethra, so that when the patient made water the urethra was not normally distended, because the mucous membrane was not unfolded. The simple passage of an instrument, even repeatedly, would no more unfold those adhered folds of mucous membrane than would efforts at stretching the tendo-Achillis bring the heel down in old talipes equinus. The idea had been advanced by Dr. Gouley, that in *divulsion*, and possibly in full dilatation, there was more or less divulsion; a cicatricial splice was put in, so that when the bladder was being emptied it was possible for the urethra to expand to its natural size.

Dr. Gross maintained that such splice could *not* be put in by dilatation simply. He believed in divulsion in cases in which the symptoms were urgent. It was a bad operation, however, unless followed by the bulbous explorer for the purpose of detecting undivided bands, and having detected them, they should be divided by the urethrotome. Dr. Gross did not hesitate to say that it was as safe to divide the deep portion of the urethra as any other when a proper instrument was employed. He objected to Dr. Otis's instrument on the ground that it was a *divulsor*, as well as a dilating urethrotome.

Internal urethrotomy, in any portion of the urethra, was as safe an operation, *if the kidneys and other portions of the genito-urinary apparatus were healthy*, as the simple introduction of a catheter. He had had two cases in which simple introduction of the catheter had been followed by death, and yet he had not ceased to introduce the catheter because two patients had died in consequence. In conclusion he stated that the rational treatment of stricture consisted in restoring the normal calibre of the urethra, but that it could not be done by dilatation, for the bands would be just as apparent after such treatment as before; and that to permanently cure stricture a new piece must be put into the unfolded mucous membrane, which was best done by internal urethrotomy.

Dr. STEIN thought that internal urethrotomy should not be undertaken without due consideration of the seat of the stricture and the condition of genito-urinary apparatus of the patient. His experience had been that cutting operations on the deep portions of the urethra were dangerous, on account of hemorrhage and urethral fever. The danger of the operation, either divulsion or internal urethrotomy, was very much increased when performed at a depth of more than four and a half inches from the meatus, and the danger increased in proportion to the contraction of the urethra. The pathological changes in the urethra, as was well known, in cases of stricture of large cali-

bre were not so great as in connection with close strictures, hence they were more amenable to treatment, and operations upon them were less dangerous than operations upon tight strictures.

On motion by Dr. Sayre a vote of thanks was extended to Dr. Gross for his interesting paper, and the Association adjourned.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 2 to June 8, 1878.*

HEAD, JNO. F., Lieut.-Col. and Surgeon. Granted leave of absence for two months. S. O. 47, Div. of the Atlantic, June 4, 1878.

WINNE, C. K., Capt. and Asst. Surgeon. Granted leave of absence for one year from June 1, 1878, on Surgeon's certificate of disability. S. O. 120, A. G. O., June 4, 1878.

O'REILLY, R. M., Capt. and Asst. Surgeon. Assigned to duty as Post-Surgeon at Charleston, S. C. S. O. 65, Dept. of the South, June 4, 1878.

NEWLANDS, WM. L., 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months, with permission to go beyond sea. S. O. 121, A. G. O., June 5, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 8, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| June 1, 1878..... | 0             | 6              | 69             | 3                          | 28       | 39          | 0          |
| " 8, 1878.....    | 0             | 12             | 81             | 1                          | 40       | 57          | 0          |

AMERICAN NEUROLOGICAL ASSOCIATION.—The (adjourned) Fourth Annual Session of this Association will be held on Wednesday, June 19th, at 2 o'clock P.M., in the lower lecture-room of the College of Physicians and Surgeons, Twenty-third street and Fourth Avenue, and will continue three days.

J. S. JEWELL, M.D., *President.*

E. C. SEGUIN, M.D., *Rec. Secretary.*

PROF. V. SIEBOLD, of Munich, the Nestor of German zoölogists, celebrated, on April 22d, his fifty-year Doctor-jubilee. The Royal Academy of Sciences and the University of Munich sent deputations to bear their congratulations to the aged professor, and many other Universities and learned societies, both German and foreign, sent congratulatory letters. The King of Bavaria signalized the occasion by conferring on Dr. Siebold the cross of Commander of the Order of St. Michael.

THE PLAGUE.—Advices from Bagdad to May 7th state that it is rumored there that the plague has broken out in Ispahan. In Kōisandjak, which lies to the south of the Urmia Sea, an epidemic disease,

which resembles the plague, has broken out. According to Russian advices from Teheran, the plague has raged in Sondj Bulak (Persian Kurdistan) for three months, and has already caused 400 deaths. The epidemic of supposed malignant erysipelas in Hamada has turned out to be an epidemic of pustula maligna. The disease attacks principally the leather-workers of the town.

**MEDICAL EDUCATION IN ILLINOIS.**—At a recent meeting of the Illinois State Board of Health, held at Cairo, the following resolutions were unanimously adopted: *Resolved*, That on and after July 1, 1878, the Board will not consider any Medical School in good standing which holds two graduating courses in one year. *Resolved*, That on and after July 1, 1878, the Board will not recognize the diplomas of any Medical School which does not require of its candidates for graduation the actual attendance upon at least two full courses of lectures, with an interval of six months or more.

**NEW YORK ACADEMY OF MEDICINE.**—At a stated meeting held May 2, 1878, Dr. E. L. Partridge was elected Resident Fellow, and Francisco Rizoli Corresponding Fellow of the Academy. Drs. Willard Parker, Fordyce Barker, and E. R. Squibb were appointed a committee to confer with committees from other Societies in relation to an effort to secure the passage of a law to prevent the adulteration of food and medicine.

**LOSSES OF THE RUSSIAN ARMIES.**—According to the *Golos* and other Russian journals, the united losses of the Russian armies in Europe and Asia by death, up to the 30th of last January, amounted to between 120,000 and 150,000 men. This includes those who perished from disease and exposure, as well as those who died from their wounds, or were killed in battle. According to the official *ordre de bataille*, the effective force of the Russian armies in the Balkan peninsula was from 300,000 to 320,000 men, and that of the armies in Asia from 180,000 to 200,000 men. To these must be added from 40,000 to 60,000 Cossacks, divided between the two fields of operations.

**BREVET BRIG.-GENERAL J. J. B. WRIGHT**, a veteran medical officer of the United States Army, and among the most widely known and esteemed of the medical staff, died at his residence in Carlisle, Pa., May 14, 1878. General Wright was born in Wilkesbarre, Pa., in May, 1801, where his parents had long previously resided. He received the degree of A.B. from Washington College, Pa., and, a few years subsequently, graduated in medicine at the University of Pennsylvania; he afterwards received an honorary degree of Doctor of Medicine from the Jefferson Medical College. Dr. Wright commenced the practice of his profession near his native town, and though soon engaged in a large practice, he was induced by his brother, Major Thomas Wright, Paymaster, U. S. A., to present himself for examination before the Army Medical Board—was approved, and appointed Assistant Surgeon, U. S. A., Oct. 25, 1833. During the first ten years of Assistant Surgeon Wright's official career, his services were at stations far beyond the centres of commerce and the busy marts of trade, and at ports accessible only after weeks of travel. He participated in the operations against the Seminole Indians in Florida, 1841-42, and here rendered efficient and valuable service.

In 1846 he was attached to General Zachary Taylor's "army of occupation," was present at the battles of

Palo Alto, and Resaca de la Palma, and received especial commendation from his commanding officer for efficiency and zeal in the performance of arduous duties; immediately subsequent to these operations he had charge of the General Hospital at Matamoras; during the campaign from Vera Cruz to the city of Mexico, Surgeon Wright was Medical Purveyor of the army; he was especially commended for efficiency at the battle of Cerro Gordo; at Contreras and Churubusco he performed his duty in such manner as to elicit especial mention in the report of General Worth, who also alludes to him in terms of high commendation in the report of the operations of his division at Molino del Rey. Soon after the Mexican war, Surgeon Wright was on the staff of Major-Gen. Worth, with headquarters at San Antonio, Texas; he served here during the prevalence of an epidemic of Asiatic cholera of unprecedented violence. Subsequently he was engaged in various expeditions in the West during 1857 and 1858. During the late war, Surgeon Wright, while on the staff of Generals McClellan and Rosecrans, participated in some of the engagements in West Virginia. Afterwards he was Medical Director, Department of the Missouri, on the staff of General Halleck. He attained the grade of Colonel and Brevet Brigadier-General, and was retired from active service in December, 1876. General Wright was a man of great urbanity, a true soldier in his instincts, never permitting any personal considerations to interfere with the strictest discharge of duty; of acknowledged professional skill; fair and honorable in all his official and social relations. He had many warm personal friends among the old enlisted men of the army, and held a high place in the esteem of his associates, both in and out of the medical staff. *Requiescat!*

**STATE MEDICAL SOCIETY OF ARKANSAS.**—Since the disbandment of the old Arkansas State Society by a decision of the Judicial Council of the American Medical Association, the new society has issued a conciliatory circular inviting the old members to join.

**A CASE OF ABSCESS FOLLOWING A HYPODERMIC INJECTION OF DIALYZED IRON.**—Dr. W. M. Kemp, of this city writes: "The statement of a very flattering result following the hypodermic use of dialyzed iron in the treatment of anemia published by Prof. Da Costa, leads me to report a case of abscess following a similar experiment. Mrs. L., a very anemic woman, who had taken various preparations of iron without any marked benefit, received a hypodermic injection of ten minims of dialyzed iron in the left arm about the insertion of the deltoid muscle. Immediately following the injection she became much cyanosed and unconscious, the respiration and pulse being barely perceptible. The recumbent position, air, and stimulants, together with artificial respiration, overcame this condition, but for the remainder of the day any effort to raise the head was followed by a recurrence of the above symptoms, which however gradually wore off. The point of puncture remained very much swollen, tender, and inflamed; the swelling extended over a surface of four inches. At the end of a week the abscess became pointed and discharged about a drachm of fluid resembling in color and consistence the iron injected. After poulticing for a few days about three ounces of pus were discharged and the abscess healed. The preparation of iron used was a freshly opened bottle from Wyeth, of Philadelphia. Notwithstanding the unpleasant result in this case, the patient is desirous of having the remedy used again, but before attempting it. I wait the report of other cases in which the remedy has been successfully used."



## Original Lectures.

### LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

By E. C. SEGUIN, M.D.,

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#### LECTURE IV.

#### 2. NON-SYSTEMATIC OR FOCAL LESIONS OF THE SPINAL CORD CONTINUED; LESIONS INVOLVING ONE LATERAL HALF OF THE SPINAL CORD, IN ITS LOWER AND UPPER REGIONS; DIAGNOSIS OF SPINAL HEMIPLEGIA. ANATOMY AND DISEASES OF THE MEDULLA OBLONGATA.

GENTLEMEN:—When a focal lesion, caused by spontaneous disease, or by traumatism, involves one lateral half of the spinal cord more or less exactly, we observe striking and characteristic symptoms in the patient. Some of these are in relation to the height of the lesion in the organ as pointed out in the preceding lecture, but the most important ones are dependent upon the fact that one lateral half of the cord is injured in its kinesodic and aesthesodic tracts. A reference to Figures 2 and 4 in preceding lectures will facilitate the comprehension of what I shall have to say upon these lesions.

According as the lateral focal lesion is placed low down or high up in the spinal cord, we denominate the symptom-groups as hemi-paraplegia in the first case, spinal hemiplegia in the second.

*a.* Hemi-paraplegia. A tumor compressing one lateral half of the spinal cord in its dorsal (case by Charcot) or lumbar regions, a knife-cut, a contusion by a piece of broken vertebra, or a patch of hemorrhage or softening, will give rise to this symptom-group. Let us suppose the lesion to be situated in the right half of the spinal cord. As a result (see Fig. 2) the motor paths from the brain and upper spinal cord to the right lower extremity are cut off, together with the sensory paths which, crossing the median line below the lesion, supply the left lower extremity with sensibility.

In the living human subject we observe motor paralysis, more or less complete in the right lower extremity, and the sensibility of this member is preserved or increased. If the lesion be traumatic and quite complete, hyperæsthesia and increased temperature are present. In the left lower extremity, on the contrary, we find no paralysis, but more or less complete anæsthesia. It is noteworthy that the so-called muscular sense is not abolished in that anæsthetic limb. The bladder and rectum may be paralyzed. In some cases the distribution of symptoms in the two extremities is not as typical and clear as above stated, some paresis appearing on the side opposite the lesion, and slight loss of sensibility existing on the paralyzed side. This, I need hardly say, is owing to the fact that the lesion crosses the median line.

As regards constriction bands, increased reflex, nutrition of muscles, and visceral paralysis, regard must be had to the exact height of the lesion in the cord, as determined in sections 1, 2, 3 of the preceding lecture.

This form of paraplegia can be exactly reproduced in animals. It is now nearly thirty years since Brown-

Séquard showed to the Biological Society of Paris, animals (Guinea-pigs, etc.), in whom hemi-paraplegia had been produced by cutting one lateral half of the cord in the dorsal region. The operation is not very difficult, and the results are always striking.

*b.* Spinal hemiplegia. A lateral focal lesion in the cervical enlargement, or above it, will give rise to the following symptoms, more or less exactly distributed. If the right half of the organ is the seat of the lesion, we observe that the arm and leg on the same side are paralyzed, the intercostals usually escaping, while on the opposite side there is no paralysis, but more or less perfect anæsthesia exists to the median line of the body, and as high as the limit of distribution of sensory nerves coming from the spinal cord just below the lesion. The absolute height of the lesion is to be determined as in sections 4 and 5 of Lecture III. In these cases we nearly always find, on the same side as the injury, contraction of the pupil, redness, and increased temperature of the face and ears. These symptoms are due to paralysis of the vaso-motor and ciliary centres in the spinal cord. Often the paralyzed limbs are hotter than the anæsthetic.

In some cases, owing to incomplete destruction of one lateral half of the cord, the arms, thorax, and face alone exhibit symptoms, the legs remaining normal. In other cases various degrees of abnormal reflex action are present in the affected lower limbs; sometimes more on the anæsthetic side.

We owe a clear conception of these interesting forms of spinal paralysis to Brown-Séquard, although some cases of spinal hemiplegia had been placed on record before him (Sir Chas. Bell, Ollivier, Oré, and others). This distinguished physiologist and physician produced spinal hemiplegia and hemi-paraplegia in animals from 1849 on, and in 1863-5 published elaborate memoirs, in which he collected all the cases then known, and critically studied their semeiology. In 1868 and 1869 the same author published other cases and remarks which have placed our knowledge of this subject upon a firm foundation. Some doubt exists as to the absolute correctness of Brown-Séquard's law of the course of motor and sensory paths in the spinal cord in animals, but in man it would seem, from the study of many cases, that the law holds good.

#### ANATOMY AND DISEASES OF THE MEDULLA OBLONGATA.

Leaving the diseases of the spinal cord to proceed to the consideration of those of the medulla oblongata, I must again refresh your memories upon the physiological anatomy of the parts concerned; mentioning only such data as will be of use to us in our diagnosis of location of disease. The first, and perhaps the most important point I wish to call your attention to is the decussation of the anterior pyramids at the junction of the spinal cord and medulla. This decussation is made up of bundles of nerve-fibres coming from the anterior pyramids of the medulla, crossing the median line, and continuing their way down the cord in each of its halves, constituting that part of the lateral column known as the crossed pyramidal column. Another bundle extends downward, without crossing the median line, into the inner part of the anterior columns, the so-called direct pyramidal column (compare Fig. 1, Lecture I.). According to the books, the uncrossed portion of the pyramidal fasciculus, the direct pyramidal column, is much smaller and less important than the other bundle of fibres which cross the median line.

Of immense importance for the study of localizations in the brain, and particularly for the estimation of the symptom hemiplegia, is a knowledge of the

\* Delivered at the College of Physicians and Surgeons during the months of December, 1877, and January, 1878.

exact extent and regularity of this decussation, or more strictly speaking, semi-decussation. If we are to follow text-books we shall be led to believe that the semi-decussation always occurs in about the same proportion on the two sides: a view which Brown-Séquard and others admit while trying to demonstrate that a lesion of the brain may produce paralysis on the same side of the body. Still, in past times a few facts had been recorded against the constancy of the pyramidal decussation, but it was not until Flechsig published his embryological researches in 1876, that it was known how *very variable* is this decussation. Examining the spinal cord of sixty fetuses, this investigator found that the proportion in the size of the crossed and direct pyramidal columns varied almost infinitely between the following figures: in one case the direct pyramidal column was equal to 90, the crossed column to 10. In another case at the other extreme the proportion was 0 to 100; in other words all the pyramidal fibres had crossed the median line. There was no case in which there was absolutely no decussation, but Flechsig correctly remarks that there is no reason why such a specimen should not be met with. The majority of the fetuses had an ordinary semi-decussation, the crossed bundle predominating over the direct. The above variations in the pyramidal decussation are diagrammatically represented in Fig. 5.

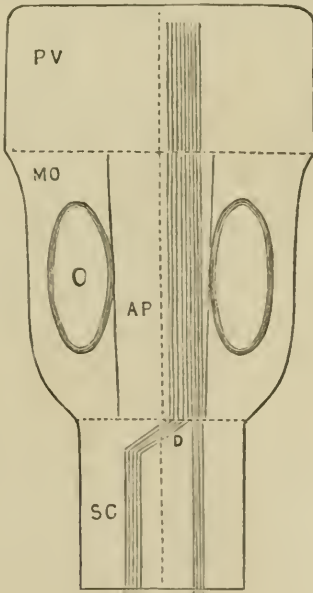


Fig. 5.

Diagram explicative of pyramidal decussation: p.v., pons Varolii; m.o., medulla oblongata; o., olivary body; a.p., anterior pyramid; d., decussation; s.c., spinal cord. The direct and crossed bundles vary very much in size, as shown in the following ratios of crossed and direct: 100:0, 92:8, 84:16, 70:30, 52:48, 35:65, 10:90.—(Flechsig.)

Besides, Flechsig determined that there were other irregularities in the proportionate size of the four columns (two crossed pyramidal columns, two direct) which result from the breaking up of the pyramids, but this is not essential to our present study.

The practical bearing of this discovery is very great, for it will be readily understood that in the exceptional cases in which the pyramidal decussation is nearly wanting, an unilateral lesion of the medulla, pons, or brain must give rise to symptoms of paralysis on the same side as the lesion.

Again, in those few cases in which the semi-decussa-

tion is nearly equal, an unilateral lesion above the spinal cord will produce weakness on both sides of the body. Lastly, in the immense majority of cases, those in which most of the pyramidal fibres cross the median line, we obtain the classical crossed hemiplegia. It is ignorance of these researches of Flechsig which makes that distinguished physiologist, Dr. Brown-Séquard, invert the reasoning and draw chaotic and iconoclastic conclusions respecting the mode of production of hemiplegia (and other symptoms of brain disease). Starting with the generally received doctrine (never proven in a scientific way) that the pyramidal decussation is invariable and nearly total, and finding scattered in medical literature more than three hundred cases in which paralytic symptoms appeared on the same side as the lesion, he concludes that we are all wrong in considering hemiplegia to be due to destruction of or pressure upon motor tracts in the brain and basis cerebri.

Bearing in mind Flechsig's demonstration, the erroneous logic of the above is evident. Besides, these exceptional cases, so laboriously collated, should be looked at in another way. Most of them are old cases, *i.e.*, cases reported before modern cerebral anatomy was understood; many of them are related by men utterly or relatively unknown. Furthermore, any one who has worked much in the post-mortem room will appreciate how easily right is wrongly written, when left is meant, as a brain is turned over and around for examination. Consequently, we might claim the right to reject as worthless many of these three hundred or more cases. Suppose, however, that they are accepted as *bona fide* examples of palsy on the same side as an encephalic lesion, and that we compare them with the thousands of cases of classical hemiplegia on the side opposite the cerebral lesion, do we obtain a proportion greater than that observed in Flechsig's series of fetuses, one to sixty? I think not.

I have thus digressed from proper medulla diseases in order to treat the subject of pyramidal decussation fully, *i.e.*, anatomically and clinically, in one lecture. Having done this will save much repetition in treating of lesions above this point.

The pyramids whose decussation we have studied are the direct motor tracts which connect the cerebral cortex with the spinal cord. They are externally visible on the anterior (inferior) surface of the medulla, can be traced in the pons and crura, and thence into the internal capsule in the white centre of the hemispheres to those parts of the cerebral cortex which are now considered as in some way motor. In subsequent lectures I shall describe this great motor tract more fully, and give you the reasons for believing it to be continuous from the cortex to the end of the spinal cord. The remainder of the kinesic system of the medulla embraces longitudinal bundles of fibres which lie between the two olivary bodies (supposed to be in connection with the ganglia at the base of the cerebrum) and the various nuclei of motor nerves in the floor of the fourth ventricle. These nuclei, or groups of motor (and trophic?) cells, represent the anterior horn-cells of the spinal cord, strangely thrown backward and toward the median line. They differ from the cell-groups of the anterior horns also in being more differentiated in relation to the nerves which arise from them. Reckoning from below upward, we find the nuclei of origin of the spinal accessory (11th), hypoglossal (12th), facial (7th), and abducens (6th) nerves. The last two lie on the confines of the medulla and pons. These nerves and their nuclei must, I think, be looked upon as active in three ways; 1, by their own (trophic?) neurility; 2, by reflex action



set up through the adjacent and correlated sensory nerves; 3, by impulses coming from supra-bulbar parts, great basal ganglia, cortex of the brain. This last connection is undoubtedly a crossed one, *i.e.*, the fibres or paths which transmit the motor impulse down to these nuclei cross the median line at some unknown distance above them. There is therefore another motor decussation besides the great one described above.

The æsthesodic system of the medulla oblongata occupies its lateral portions chiefly, and a part of the gray matter under the floor of the fourth ventricle, outside of the series of motor nuclei. In this gray matter we find, from below upward, the nuclei of origin of the pneumogastric (10th), glosso-pharyngeal (9th), and acoustic (8th) nerves. All through the lateral region of the medulla posterior to the olivary bodies lies the great descending root of the trigeminus (5th) nerve, which meets with groups of cells throughout this region down to the uppermost parts of the spinal cord.

These various nuclei and nerves, kinesodic and æsthesodic, make up arcs for reflex actions of the most important kind, as breathing, swallowing, and (with gray matter in the pons) the state of vascular tonus. The respiratory centre (so-called) is in the nuclei of the pneumogastrics, the vaso-motor centre lies near the median line at the junction of the medulla and pons, and there are various subordinate foci or centres for important morbid actions, as the diabetic centres, the albuminuric centre, etc. Besides, the hypoglossal nuclei and nerves preside over the movements of the chief organ of speech.

I should add that the medulla oblongata has intimate though ill-understood connections with the cerebellum, by means of the restiform bodies and olivary bodies.

As regards the localization of disease in the medulla, I shall have but little to say, for the reason that, in accordance with the terms of the course, I am bound to speak of only well-determined clinical forms whose lesions can be diagnosed. Consequently, I will say nothing of systematic lesions in the bulbar æsthesodic system, nothing of bulbar lesions in diabetes mellitus, almost nothing of focal lesions of the organ.

a. Systematic lesions of the kinesodic tract are represented by only one typical symptom-group, *viz.*: the so-called labio-glosso-laryngeal paralysis, or bulbar paralysis. The lesion in this disease consists of granular degeneration of the ganglion cells of the nuclei of origin of the hypoglossus, spinal accessory, and of part of the facial nerves. The alteration is very like that present in progressive muscular atrophy (systematic lesions of the spinal cord, No. 5, Lecture III.), a molecular death, by degeneration, of ganglion cells.

The symptoms of typical labio-glosso-laryngeal paralysis are strictly motor, and consist in fibrillary contractions in and atrophic paralysis of the orbicularis oris, muscles of the tongue and throat, and some muscles of the larynx. Labial sounds are interfered with, saliva dribbles from the mouth, forcible blowing or whistling becomes impossible, the tongue plays heavily in the mouth as shown by thickness of speech and by difficult mastication, the voice becomes nasal through palatal paresis, and hoarseness, almost aphonia, is produced by palsy of the laryngeal muscles. At the same time, in extreme cases, the lower facial muscles become inert, the lower jaw hangs down, and an abundance of tenacious saliva runs from the patient's mouth: speech is quite unintelligible, and swallowing performed with extreme difficulty. At the close of life, if that be not cut short by the lodgment of food in the larynx, there are symptoms of injury to the

pneumogastric nucleus, such as exceedingly rapid pulse and sudden stoppage of respiration.

In certain non-typical cases the lips, tongue and throat are affected in very various degrees; in others the pneumogastrics suffer early; and in others still the symptoms of progressive muscular atrophy, or of amyotrophic lateral sclerosis (Lecture II.) set in simultaneously or subsequently. I am disposed to believe that we may have many forms of "bulbar paralysis," and consequently would use the term as a generic one, to embrace certain varieties, only one of which is now well known.

[It will be asked why I do not speak at length of descending degeneration through the medulla. This lesion is the continuation downward of a degenerative change in the motor tract beginning in the cerebral cortex, the internal capsule, the nuclei of the corpus striatum, or in the basis cerebri.

It usually affects only one anterior pyramid, and is continued downward into the cord, in its direct and crossed pyramidal columns. No symptoms indicate this alteration in the medulla, and we infer its existence from the diagnosis of descending degeneration in the spinal cord (Section 3, Lecture II.). I do not formally treat of this systematic bulbar lesion for the reason that it has no semiology.]

b. With respect to focal lesions. A lesion involving one lateral half of the medulla will produce, first, symptoms of injury to the kinesodic and æsthesodic systems in that half of the medulla, the symptoms being on the same side as the lesion; and second, hemiplegia of motion (and sensation, if the injury be deep enough) in the opposite side of the body. Again, a superficial focal lesion involving the anterior (inferior) face of the medulla may produce symptoms closely resembling those of bulbar paralysis of the type labio-glosso-laryngeal paralysis; and perhaps the only way of reaching a correct diagnosis is by determining the presence of the degeneration-reaction in the paralyzed facial and lingual muscles, and by demonstrating weakness or positive palsy of the extremities.

An exceedingly atypical form of bulbar paralysis is the one caused by ischemia of the medulla, owing to arrest of circulation in the vertebral and anterior spinal arteries. The symptoms are mixed motor and sensory (deglutition and articulation impaired, breathing of the Cheyne-Stokes type, rapid pulse, tottering gait or marked general paralysis) and death rapidly ensues.

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NATURE AND TREATMENT OF YELLOW FEVER.—The classical essay of Dr. Charles Belot, director of the hospital at Havana (Paris, 1865), will be remembered by many medical readers as a condensed experience of one who practised for years in one of the great yellow fever centres of this continent, and the translation just issued in Savannah of that remarkable paper will consequently find many subscribers. Dr. Belot regards the disease as having three distinct and well-marked stages, in the first of which the vomiting, at first clear, then greenish-yellow and loaded with mucous membrane, finally black and composed of clotting blood, makes its appearance at the expiration of a few hours. The urine is yellow or brown, and highly albuminous. The second period commences with the definite localization of the disease, and is marked by gastric pains, dyspnoea, swelling of the gums, and highly albuminous urine. The third or typhoid stage shows altered blood, diminution of heat, alteration of the nervous system, suppression of the urine, dyspnoea, and delirium.

## Original Communications.

### TREATMENT OF THE VOMITING OF PREGNANCY.

By FREDERICK D. LENTE, M.D.,

SARATOGA SPRING, N. Y.

I HAVE just met with an article published by Dr. Sims in a recent number of the London *Lancet*, and republished in the April number of the Richmond and Louisville *Journal*, entitled the "Vomiting of Pregnancy and its Treatment," by M. O. Jones, M.D., of Chicago, on which I desire to make a few remarks.

In the first place, this affection is so distressing and generally so intractable, as the doctor justly remarks, that the profession ought to be grateful to him and to Doctor Sims for calling general attention to a mode of treatment, which, for a certain and rather large class of cases, is of signal service, acting generally as promptly as a full dose of quinine in ague. Dr. Jones refers to various opinions as to the pathology of this affection—"distention and development of the dense uterine structure," "flexions" (G. Hewitt and M. Brian), etc. He then refers to the long list of remedies which have been tried and found wanting. He mentions perhaps all remedies but the only one which has proved of any real service—electricity. In the first number of Beard's *Archives of Neurology and Electrology*, the writer published an article on the relief of vomiting by electricity, vomiting from various causes; but in several of the cases it was caused by uterine irritation, either during pregnancy or menstruation, for the latter sometimes produces as dangerous irritation of the stomach as the former. Other physicians have since tried this remedy with great success, notably Prof. Thomas, and I think it well to ask the attention of the profession anew to this matter, since the paper was published in a journal which had then but few readers. However, the subject was revived by a letter from Dr. Philippo, of Kingston, Jamaica, to the writer, and published in THE MEDICAL RECORD two years ago. The case was that of a lady who had nearly lost her life from vomiting in two previous pregnancies, large quantities of blood having been evacuated from the stomach; the same symptoms were progressing when the doctor, having read my paper, concluded to try electricity. After the first application she could eat and relish chicken soup, and on the following day, chicken.

Dr. Jones believes that the irritation proceeds from the cervix uteri, and that the scientific treatment would therefore be to apply our remedies to that point. He says: "I thought, by exciting an irritation or superficial inflammation of the os and cervix uteri, the reflex nervous phenomena would be concentrated at the point of irritation, and thereby relieve the stomach." A very reasonable conclusion. He states that, immediately on the conception of this idea, he determined to put it into practice, which he soon did. This was six years ago. His method for producing the desired irritation is to apply the solid nitrate of silver to the os, and sometimes to the cervix also. The relief was prompt, almost immediate. All of his five cases but one were primiparae. In two, there was "slight erosion around the mucous lining of the os," in the others no perceptible disease.

Dr. Sims relates, as a sequel to Dr. Jones's paper, a similar case which lately occurred in his practice abroad. The lady had had one child after going

through a fearful amount of suffering and danger from vomiting. She had had three miscarriages from the effects of gastric irritation, although attended by the best medical skill. She was now only a few days advanced in pregnancy, and Dr. Sims tried various remedies, including bismuth and potassium bromide, the latter in large doses. She rapidly grew worse, and on examination he found "right lateral acute flexion, both lips of the os *ostium* granular, and covered with a profuse gelatinous leucorrhoeal secretion. The os had been lacerated bilaterally, the anterior lip was everted as well as eroded, and the finger could easily have been carried into the canal." "I cleared away the leucorrhoeal secretion, and applied a solution of nitrate of silver (2 iij. a 3 i.) freely over the whole surface of the os until it was well whitened. On the next day I found M. de C. sitting up in bed, and as bright and cheerful as possible. The change in her voice and general appearance was marvellous; she had taken a liberal breakfast, the first in two weeks. At the end of five or six days there was some nausea, and I pencilled the neck of the womb with pure carbolic acid. On the next day, she said she was perfectly well." This was all the treatment that was necessary.

I have always considered this idea of the pathology of the affection, enunciated by Dr. Jones, as the correct one, and it is, I believe, the opinion of the majority of the profession. If the opinion of G. Hewitt and M. Brian were correct, the vomiting would not persist after the fifth month; but we know that, in many if not in all these desperate cases which we are now considering, it does persist to death, which has occurred in several cases, or to the evacuation of the uterus. There is no doubt, however, that the irritation of flexion does, like any other source of irritation, cause the phenomena in the earlier months of gestation. Unfortunately, and singularly, Dr. Jones fails to give us the date of conception and the date at which the treatment effected the cure. In his cases, there was apparently not enough disease to cause such symptoms; but, in Dr. Sims's case and in my own there was chronic disease, and I have always had the idea that it was the effect of the application on this disease, blunting the sensitiveness of the irritated nerve filaments, which gave the relief. I have been struck with the prompt relief of hemorrhage, and occasionally of severe vomiting, and of nervous symptoms, by one or two thorough applications of the solid nitrate of silver to the whole lining of the uterine mucous membrane; by means of my *porte caustique*, and also of the same symptoms by a single application of the *curette* to the same surface, although almost nothing was scraped away. Some writers contend that, in the latter case, it is the induction of a new action, a new irritation or inflammation, which produces the prompt effect. But it is sufficient for our present purpose to know that the nitrate and the *curette* have this power, without knowing precisely how it is exerted.

The first case in which I applied Dr. Jones's treatment occurred thirteen or fourteen years ago, and I think it may have been published in one of my papers, but cannot recall the name of the journal nor the date. The patient was the wife of a non-commissioned officer at West Point. She had arrived, if my memory does not fail me, at the seventh month of gestation, when the vomiting, which had persisted for months, became alarming. No nourishment or stimulant of any kind, or in the smallest quantity, could be retained on the stomach. She had suffered from leucorrhoea for a long time, and vaginal examination revealed granular erosion and dilatation of the os, with a purulent discharge from it. The os and cer-



vical canal were freely touched with the solid nitrate. It happened that I could not visit the patient for several days, and when I did, I found her, to my great surprise, whitewashing the room. She had been almost immediately relieved of her bad symptoms, and her ability to take food returned at once. I have an indistinct recollection of a case published a year or so ago, in which the vomiting was so severe and dangerous, that a sponge-tent was introduced with a view to produce abortion. It failed in its object, but the sickness did not recur, and the patient went on to full term. The physician accordingly recommended this form of irritation in similar cases. Prof. Thomas recalled my attention to this case, but neither of us could remember the name of the reporter of the case. Such treatment would, as he remarked, induce abortion in a large majority of cases.

Since the application of *electricity* to these cases, I have never found it necessary to resort to uterine applications. But they do not occur frequently in the practice of most men, and I have had but very few opportunities to test it myself; but my friend Prof. T. G. Thomas, who commenced its use immediately after the publication of my paper in November, 1874, has had a fair field for trial in his extensive personal and consultation practice, and writes to me on the subject as follows:

"In reply to your question as to my experience in the use of the electric current in the relief of nausea and vomiting, I would state that I have, ever since the appearance of your paper calling attention to its efficacy, employed it very extensively. In that distressing and very obstinate gastric disturbance which so often shows itself after ovariectomy, I have found it especially advantageous.

"I employ it in a manner somewhat different from yours. Fixing one broad, flat electrode by means of broad strips of adhesive plaster on the epigastrium, and placing a similar one under the spine (the patient lying on the back), I pass a current so gentle that the patient is just conscious of its passage. This I continue steadily for ten, twelve, or even twenty-four hours without intermission, renewing the fluid in the battery whenever this becomes exhausted.

"This plan I have pursued with great advantage in a dozen cases or more, and have seen no evil result from it thus far. I know of no other therapeutic agent which I esteem so highly for the relief of nausea and vomiting as I do the electric current.

"I was led to adopt the prolonged gentle current from the fact that I have for a long time employed it in my own person for relief of muscular rheumatism, from which, you know, I suffer a great deal. Fixing the electrodes as I have described, upon retiring at night, at the attachments of the affected muscle, I allow a gentle current to pass until the next morning."

Dr. Thomas makes a very convenient electrode for the above purpose by stitching a flat sponge to sheet rubber.

Dr. Semmola\* has lately recommended the *constant* current for "nervous vomiting," and reports excellent results for some years. He also finds it a valuable means of diagnosis in chronic vomiting. "In cases where the vomiting is not exclusively and primarily nervous, its application fails in enabling the stomach to retain food."

I find in the January, 1878, number of the *Amer. Jour. Med. Sci.*, a number of cases reported by Dr. Busey, of Washington, where the most obstinate

vomiting in pregnancy was cured promptly, after failure of other means, by the injection, *per rectum*, of large doses of bromide of potassium. Dr. Sims tried large doses in his case by the mouth ineffectually. In those less severe cases, where life is not threatened, but where it is rendered miserable by almost constant nausea, I have found the bromide very valuable, but have usually employed it, *per os*, in moderate doses, and in combination with small doses of chloroform, and also with bismuth, repeating the dose every two, four, or six hours, according to the urgency of the trouble. The bromide is valuable both as a prophylactic against vomiting and as a cure. By getting the system under its full influence before anæsthesia by ether, and before going to sea, the distressing consequences of these disagreeable necessities are, in a great measure, avoided.

SARATOGA SPRINGS, June 1, 1878.

## THE INFANTILE DIARRHŒA OF SUMMER.

By C. G. COMEGYS, M.D.,

LECTURER ON CLINICAL MEDICINE, CINCINNATI HOSPITAL.

THE presentation of this subject by Dr. J. Lewis Smith, and its discussion in the New York Academy of Medicine, on the 16th of April, as reported in the *RECORD* in a previous number, greatly interested me, for the readers of the *RECORD* will please recall that in the issue for July 29, 1876, I published an article on "Cool Bathing in Inflammatory Bowel Affections."

Considering the season upon which we are now entering, and the very large destruction of life by bowel affections that ordinarily occurs during its infantile period, I think we must all admit that no medical topic possesses an equal interest to that which Dr. Smith has introduced.

I also published an article on my method of treatment in the *Philadelphia Medical Times*, July 19, 1875. I shall therefore merely reproduce in a condensed form what I have said in both of my articles.

It is only barely necessary to call attention to the difference between cholera infantum, and the more common forms of infantile diarrhœa comprehended under the common name of "summer complaint." In the former we have those profuse discharges of serous matter, by vomiting and purging, that bring on a collapse as rapidly as is seen in true Asiatic cholera; but the latter is slower in its progress, and commonly there is fever, due to a congestive or an inflammatory process in the small and large intestine.

I will in a general way put summer complaint in three classes. First, a condition of loose bowels—semi-fluid, greenish, watery, with some fecal and half-digested matters and with slight elevation of temperature. In this stage the physician is rarely called, for every one attempts to treat it with some kind of diarrhœa mixture. We are only called when the case presents more dangerous aspects. 2. It may change suddenly to the clear, copious discharge of rice-water, and assume all the traits of cholera infantum; or 3, an inflammatory process is set up—enterocolitis, in which the discharges are more frequent, retaining, however, more or less the traits of the "loose bowels" described above, with the addition of a high fever—102.5° to 106°. The pulse is much more frequent—130-150; the mouth is dry, the thirst intense; eyes staring, contracted pupils; insomnia, vomiting, rolling of the head, and distressing cries due to hyper-

\* *Gazetta Medica Ital.*, Lombarda, 1878. *London Medical Record*, April.

emia of the cerebral vessels and the unappeased thirst. The frequent vomiting and diarrhea inhibit digestion or absorption of nutritious substances, and the brain is imperilled, for an effusion is impending, and general collapse. In this alarming condition the greatest relief may be found in immersions of the body in cool or even cold water, from twelve to fifteen minutes, every three hours until the fierce symptoms are relieved, and relief will positively be obtained. It has now been five years since I have adopted this method of treating enterocolitis, and I have not lost a patient. This may seem to be a strong statement, but it is literally true.

I fell upon this method of treatment by accident in this wise: I was treating a child of eighteen months, with a high grade of fever. The case had progressed for some time with no amendment. I asked a consultation, and our united counsels did not change the case for the better. The fever continued, the brain had become involved, and there seemed to be no hope. With a feeling of anger at the unmitigated fever, I determined to subdue it at all hazards. I placed the patient slowly (for the contact of cold aroused distressing cries) in a tub of hydrant water (75°), and immersed him up to his neck, holding his head in the hollow of my hand, while I poured from a small pitcher cistern water (65°) continuously over the scalp. I kept him in the water twelve minutes, giving freely cool water for his intense thirst. Upon his withdrawal he was bluish, shivering, and nearly pulseless; the jaws trembled with the cold. He was wrapped unwiped in a woollen shawl, and soon fell into a most peaceful sleep; the skin had lost its burning heat, and a reaction soon set in; a healthy warmth and gentle perspiration were established, and the diarrhoea was arrested. The baths were repeated several times after this. In the meanwhile quinine and whiskey were given freely, also beef-tea and cool milk, with addition of lime-water. Subnitrate of bismuth and pepsin mixed in powders were administered during convalescence to restrain diarrhoea, and to assist digestion, until the suffering mucous coat of the alimentary tract should be entirely relieved. The recovery was complete.

From my experience in a large number of cases, I have the utmost confidence in recommending the plan of cold baths to the profession. I beg gentlemen to try it.

Not only will it be found invaluable in "summer complaint," but in pneumonia, capillary bronchitis, and scarlet fever, remitting and typhoid fevers; in short, whatever may be the disease (sun-stroke, *par excellence*), where a high fever exists.

If the limits of an article like this would allow it, I could give numerous cases, in all the febrile forms of disease enumerated above, where the most satisfactory results have followed baths.

The immersion plan is much better than the wet pack, because the radiation of the febrile heat is more rapid and equable from the surface of the body. I have used the pack about the chest and abdomen for many years in private and hospital practice, and I know well what I say when I repeat that it is not only more troublesome to apply, but of greatly inferior value to the immersion method. I have also in high grades of fever often enveloped the whole body in a wet sheet wrung out of cold—even ice water, but it does not answer an antipyretic purpose anything like as well as immersion.

In regard to the internal treatment, generally I employ blue-mass in powder with sugar, or rubbed up with the aromatic syrup of rhubarb, in order to estab-

lish the healthy yellow alvine dejection; afterwards bismuth and pepsin. I generally succeed with these in the apyretic or non-inflammatory cases, but give the bath always in enterocolitis.

In cholera infantum, I at once employ a suitable dose of morphia hypodermically, and at the same time give small and repeated doses of calomel or blue-mass to excite a biliary flux. The morphia will promptly arrest the vomiting and diarrhoea, but they will return with fatal effects unless the biliary dejections are established.

Lastly, children who have had an attack of summer diarrhoea and have recovered should be removed to places of better air and fresher diet, for they are exceedingly liable to a relapse.

I beg further space, in order to encourage practitioners to try the plan of cool baths, to quote from an editorial of Prof. H. C. Wood, in *Philadelphia Med. Times*, August 5, 1876, on the subject. Referring to my original article published in 1875, he says: "Any one who has seen, as I have this summer, the child on whom drugs had ceased to act, and who was seemingly doomed to die, relieved in twelve hours by enforced cold bathing every three or four hours, will grant to Dr. Comezys the credit of having introduced one of the most life-saving improvements in modern therapeutics. The sudden sweet sleep, replacing, after the bath, the fretful nights and days of unrest, is a thing never to be forgotten when once seen; and the arrest of the diarrhoea is certainly no less remarkable."

Dr. Fothergill, in his work, refers to my treatment, but seems to apprehend that it is only applicable to a form of enterocolitis. He is in error—it applies to all forms.

This summer I have tried salicylate of soda in the height of the fever, and I think it is of value. I also employ it in pneumonia very favorably.

CINCINNATI, O., June 4th.

## Progress of Medical Science.

**HERNIA TREATED BY HEATON'S METHOD.**—Dr. Langmaid recently presented before the Boston Society for Medical Improvement two children on whom he had operated for hernia by the injection method of Heaton. Case I., Leo, aged four years, suffered from acquired scrotal hernia. Was operated on twice at intervals of about three weeks, but the hernia returned, it is believed, from the impossibility of keeping the bandage in place. A third operation was performed, three hours after which the hernia again returned and could not be reduced. Three days later it was found to have disappeared of itself, and there is now (six weeks after the operation) a dense, firm plug of plastic lymph, (?) filling the inguinal canal, and apparently keeping back the hernia. Case II., aged three years, was operated on for double congenital inguinal hernia. There was in this case considerable inflammation, and a severe epididymitis of the right side, due to the needle having been passed through the invaginated scrotum. In this, as in the previous case, the inguinal canals are filled by plugs, on the right side accompanying the cord nearly to the bottom of the scrotum. The hernia have not returned. In answer to Dr. Bigelow, Dr. Langmaid said that the nature of the fluid injected governs the amount of inflammation. There had been but a single occasion when the inflammation had been at all great. Dr. Bradford



said that Englisch, of Vienna, injects alcohol, a still greater irritant than white-oak bark. His experiments had been carried on quite independently of those of Heaton.—*The Boston Medical and Surgical Journal*, May 2, 1878.

**URINARY CASTS, AND THE MINUTE ANATOMY OF THE KIDNEY.**—At a meeting of the Royal Medical and Chirurgical Society, Dr. Reginald Southey read a paper on some minute points in the anatomy of the kidney and their relation to the pathological feature of urinary casts. Reviewing the continuous system of urinary tubules, which was first described by himself, he called attention to the position and size of the looped tubes of Henle. These, the smallest of all the urinary tubes, are situated between the secreting and collecting systems, and are the sole means of communication between them. If this were borne in mind, it would be obvious that anything like a desquamative shedding of epithelium from the secreting tubes could not pass into the collecting tubes. Further, the shape and size of all casts were found to correspond with the excretory system of renal tubuli. Their most fertile source Dr. Southey believed to be the collecting tubes or the ascending straight tubes of the third subdivision; the largest old fatty granular casts were doubtless moulded in the gathering mains close to the orifices of the papillae. After many years' vain search, nothing like a desquamative shedding of the epithelium lining a tortuous tube had ever been observed by the author; and actual linings of the straight collecting tubes with their low sessile columnar epithelium had, as such, never been recognized by him. In discussing the subject, Dr. George Johnson differed from Dr. Southey on a number of points. He considered that the evidence of the formation of casts in the convoluted tubes was indisputable. As for our knowledge of the minute anatomy of the kidney, it had not been proved that all the convoluted tubes passed into Henle's loops, and Dr. Johnson thought this was a matter of some doubt.—*The British Medical Journal*, April 27, 1878.

**CLUB-FOOT.**—Mr. Swan, of Dublin, has tabulated and analyzed forty cases of club-foot; twenty-six were equino-varus, the form most commonly met with, and of these, eighteen had been unsuccessfully treated before falling into his hands. The causes which led to this want of success, he places under three heads: 1. Removal of forces producing deformity in improper order. 2. Transfixion of tendons, or omission to divide a tendon which should have been divided. 3. Improper application of extension. Deficient time allotted to the subsequent treatment. The application of improper retaining apparatus. In six cases of the eighteen the tendo Achillis, and tibialis anticus were divided in conjunction; in three the tendo Achillis and plantar fascia; in four the tendo Achillis alone. Transfixion of a tendon may be inferred when—1. Point-pressure below site of attempted division produces spasmodic contraction of muscle. 2. Extension is performed slowly and with difficulty; the deformed position is resumed with a spring on suddenly withdrawing extension by hand. The posterior tibial tendon was divided in but two cases, although all of them required it. Extension may cause slough from pressure, or paralysis from too rapid extension of a muscle. The apparatus employed is sometimes deceptively efficacious, as when inversion of the toes is overcome by rotation outward of the entire limb. Plaster-of-Paris forms an excellent dressing to maintain the foot in position; but whatever retaining apparatus may be used it should be removed daily for the pur-

pose of manipulation. Acquired valgus is common among those who are obliged to stand much; it is characterized by pain, either gnawing and dull, or lancinating and occasionally violent. There is a remarkable connection between acquired valgus and lateral spinal curvature, especially in young females. This may be due to the formation of a series of compensatory curves, or the existence of a peculiar diathesis as a predisposing cause.—*The Medical Press and Circular*, April 24, 1878.

**DISEASE OF THE LENTICULAR GANGLION.**—In a paper on this subject, Dr. J. Hutchinson stated that the destruction of this ganglion by disease might properly be followed by paralysis of three distinct muscular structures, the dilator of the pupil, the constrictor of the pupil, and the ciliary muscle. For this condition, involving paralysis of all the muscular structures within the eyeball, the term ophthalmoplegia interna was suggested, while that of ophthalmoplegia externa was proposed in contradistinction for cases in which all or most of the muscles moving the eyeball were involved. His conjecture was that when ophthalmoplegia interna alone existed, the disease was in all probability in the lenticular ganglion itself. If the nucleus or any part of the trunk of the third nerve were diseased, and this paralyzing the constrictor of the pupil, there must necessarily be defect in some of the external muscles of the eyeball. The details of eight cases were then related. It appeared highly probable that, in most, syphilis was the remote cause. Attention was especially asked to the fact that in many cases the paralysis of the iris preceded that of the ciliary muscle, and almost always in excess of it; and further that, under treatment, the ciliary muscle might regain its power whilst the iridoplegia persisted. In no case was failure of accommodation the first symptom. A suggestion was made as to the possible association of this group of symptoms with the early stage of locomotor ataxy, especially with that form of it which appears to be connected with syphilis.—*The British Medical Journal*, April 27, 1878.

**VEGETABLE PARASITES OF THE SKIN.**—Dr. Edward Wigglesworth has studied the characteristics of the vegetable parasites of the skin by a series of inoculations upon himself, giving special attention to the question of their identity or non-identity. The following are the results he has obtained: I. All vegetable parasites of the skin are not inoculable at all times and upon all persons. II. Varying degrees of intensity, or duration of application, are needed for successful inoculation of different parasites upon the same skin; the severer cases requiring more thorough inoculation. III. A healthy skin may resist the action of the less severe but more widely-spread mycoses, but yields to the more thorough inoculation of the more severe and rare forms, showing that the resistant power of the soil furnished is a factor to be regarded. IV. Extension and intension are in inverse ratio to each other. The milder mycoses are the more common, and point to an origin upon skins below par in vigor. V. The various mycoses of the human integument possess each its own distinguishing characteristics, although a transitory stage of growth of one of them may, in rare cases, as in the "ringworm stage" of favus, simulate in appearance one of the forms, temporary or more permanent, of an apparently different species. VI. While botanical and clinical observations are so at variance in reference to the identity or non-identity of the mycoses, this question must be regarded as still undecided.—*Archives of Dermatology*, January, 1878.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## LEGAL REGULATIONS FOR THE PRACTICE OF MEDICINE.

### I.

THE necessity for regulating the practice of medicine by law has been so frequently discussed that we feel almost like apologizing for again bringing up the subject. We are convinced, however, that, notwithstanding repeated failures in accomplishing the desired result, some real progress has been made; and that, consequently, there is some hope for the future. With this conviction we propose to offer a few remarks upon the general topic, taking as the text thereof the present laws regulating the practice of physic in this State and county, and endeavoring to suggest such improvements to them as may be of practical service, not only to such as are more directly interested, but to the profession at large. We do not pretend to offer any excuse for selecting New York laws in this connection, inasmuch as, theoretically and practically speaking, they may be considered as a fair expression of the present state of popular feeling upon the subject, after much hard and persistent fighting on the part of the profession. Indeed, this statement would appear to be unnecessary, except for the suspicion that might arise in the minds of many of our readers that the discussion is merely of local interest.

The physicians and surgeons of the city and county of New York are subject to the laws of the State referring to medical matters; to the rules and regulations granted by the Legislature to the State and county medical societies; and to some of the provisions of the sanitary code of the Board of Health of this city.

No one can legally practise physic or surgery unless he or she shall have a diploma from some incorporated college of medicine of this State, or the degree of Doctor of Medicine from the Regents of the University, or a license or diploma, or certificate of member-

ship, or of qualification, from one of the incorporated State, district, or county medical societies in this State.

No person coming from another State or county shall practise physic or surgery in this State or county until he shall have exhibited to the medical society of the county in which he resides satisfactory evidence that he has regularly studied physic and surgery, and shall have been duly authorized to practise by the laws of some other State or county, and have a diploma from some incorporated college of medicine, or legally incorporated medical society in such State or county.

According to Section 5 of the Sanitary Code of the Board of Health of this city, which we presume is authoritative, we learn that "the word physician shall include every person who practises about the cure of the sick or injured, or who has charge of, or professionally prescribes for any person sick, injured, or diseased, and any person who pursues the business of, or acts as *midwife*. Every physician in this city shall at all times cause his or her name, office and residence, and also his or her kind or class of practice to be registered within the Bureau of Vital Statistics and in a manner according to the regulations prescribed by this Board.

Every physician of temperate habits, good moral character and legally acknowledged right to practise physic and surgery in this State, is entitled to and must become a member of the medical society of the county in which he resides and practises.

When there was only one incorporated county medical society in each county of this State, all legally qualified practitioners of good moral character were entitled to, and obliged to become members of it; but as there are now both State and county homoeopathic and eclectic medical societies, all physicians who practise avowedly according to those systems or methods are no longer entitled to, nor can they obtain membership in the medical societies of the State or counties of New York; nor should they in the homoeopathic or eclectic societies, unless legally qualified and of good moral character.

If any county medical society shall neglect to perform all such acts as may be required to be done by it, by the law incorporating medical societies, or any other law of the State relative to the science of medicine, or shall do acts which may be considered derogatory to the honor of the medical profession, or shall oppose or neglect to comply with the by-laws of the Medical Society of the State of New York, it shall be admonished touching any such proceedings; and if it is deemed necessary for the public good that, from the improper conduct of any such county medical society, its corporate rights should be suspended, then in that case it shall be lawful and just for the State Medical Society to make application to the honorable the Legislature for such purposes.



The president of every county medical society shall give notice to every legally qualified and honorable physician and surgeon not already admitted into such society, requiring him or her within sixty days after the service of such notice, to apply for a certificate of admission as a member of such society.

The law of 1874, which is now in force, also says:

"Every practitioner of medicine or surgery in this State, excepting licentiates or graduates of some incorporated medical society or chartered medical school [of this State?] shall be required, and they are hereby commanded to obtain a certificate from the censors of some one of the several county, district or State medical societies [of this State], which certificate shall set forth that said censors have found the person to whom it is issued qualified to practise all the branches of the medical art mentioned in it [viz., physie, surgery, or midwifery].

"If a person apply to a county medical society for a certificate, and it be refused [on account of the ignorance, incompetence, or immorality of the applicant], he cannot apply to any other county medical society, not even to the homœopathic or eclectic, but has the right to appeal from the censors of such society to the medical society of the State in which such county medical society is represented.

"If a person applies to the Medical Society of the State for a certificate, and is refused, he is prohibited from applying afterwards to any county [or other, State?] medical society; though, if he should subsequently and legally procure a diploma from any incorporated medical school or college, he would be allowed to practise.

"The homœopathic and eclectic medical colleges cannot legally issue a diploma to any one who has not studied medicine three years, and taken two full courses of medical lectures, and who is not of good moral character. The law of 1874, against diplomas illegally obtained, applies to all in which these requirements have not been fulfilled.

"And further be it enacted: That no physician or surgeon who may have received his license from any other State or county, shall be permitted to practise physie or surgery in the State, unless he shall exhibit satisfactory testimony to three of the censors of the State Medical Society, that the course of medical instruction which he has pursued has been as full and complete as that which is required by either of the medical colleges [existing in 1825] of this State.

"And if not, he shall submit himself to an examination before the Censors of the State Medical Society, and shall be licensed to practise physie in this State, if found competent, and not otherwise.

"The censors of each medical society shall notify all practitioners of medicine and surgery of the terms and requirements of this act, and require such practitioners to appear and comply with this statute within thirty days. Upon failure to appear, such persons

shall be deemed to be practising without authority, and guilty of a misdemeanor, subject to a fine of from \$50 to \$200 for the first offence, and to a fine of not less than \$100, nor more than \$500, or by imprisonment for not less than thirty days, or by both imprisonment and fine, for the second offence."

The president of the society giving the notification for examination is required to commence the proceedings authorized by the act—that is, to lay the charges before the District Attorney of the county in which his society is situated.

The censors must proceed to examine all physicians [surgeons and midwives?] who present themselves. If found proficient, they shall be entitled to a certificate, which is not a license, but merely a certificate of qualification allowing the holder to practise; and much less does such a certificate make the holder a member of the county medical society granting it. for it does not even qualify him or her to apply for membership in it.

A diploma illegally obtained will not entitle a person to practise, and it would seem, according to Ordronaux, from the authority given to the censors of the society by this act, that they alone are to determine the legality of such diplomas.

The censors may also call upon physicians having diplomas from regularly chartered medical schools or colleges, and may compel the production of such diplomas.

#### ARTIFICIAL BUTTER—ITS UNWHOLESOMENESS.

In a recent article in the *American Dairyman*, Mr. John Michels gives an account of the manufacture of artificial butter, which will not be very assuring to consumers of this so-called wholesome article. He very properly maintains that it is important, in estimating the dietetic value of oleomargarine as a substitute for butter, to take into account that it is manufactured from the fat of animals, and that during the whole process, from first to last, this fat is *never submitted to a higher temperature than 120 degrees Fahrenheit*. The fat oils are, therefore, merely liquefied or set free, and manipulated to have the general appearance of butter, but they are virtually still in a raw state when thus offered for human consumption. It would appear to follow, according to his view of the case, that germs of disease (or their equivalent), morbid secretions and embryos of parasites, are thus liable to be transferred in a living condition into the systems of those who make use of this substance. But, bad as this is, it is by no means the worst side of the picture which is presented to the oleomargaric devotees, for, added to other objections, is that of adulteration. The descent in the scale of this adulteration from pure butter to the commonest kinds of compressed fat is as easy as it is natural. Hence, we are not surprised at the following statement bearing upon the point:

"The prospectus of the companies states that the

caul fat of the ox only is used for making oleomargarine, but I have reason to believe that the refuse fat of at least one pork packing establishment is used. Thus already a departure is made from the programme, and as the trade increases, fat of every description will probably be offered for sale, and even that from the carcasses of diseased animals may be purchased without guilty knowledge by the managers."

Mr. Michels is willing, however, to enter into some compromise with the ambitious manufacturers and speaks as follows on the real utility of the compound:

"For cooking purposes oleomargarine appears to be an excellent substitute for any fat previously used, but I consider considerable risk is attached to its use in a raw state as table butter, and as such it should be rejected."

#### THE MICROPHONE IN DIAGNOSIS AND OTHER MATTERS.

INTELLIGENCE comes to us that Dr. Richardson, of London, has been experimenting with Prof. Hughes, the distinguished discoverer of the microphone, or sound-magnifier, in order to ascertain whether the apparatus can be applied to diagnostic purposes in auscultation of the lungs and heart. So far the results have not been very satisfactory, inasmuch as there is considerable difficulty in making the sounds, which are heard through the stethoscope, pass, in the form of electrical vibrations, to the ear. It is reasonable to expect, however, that a large number of the present difficulties may be overcome, and that we shall arrive at a point where the sounds, normal and abnormal, can not only be distinctly heard, and made more intense, but new ones raised to the level of accurate audition. If such be the case, auscultation may be studied from an entirely new standpoint, and a chance may be given to the younger auscultators for making brilliant reputations.

In fact, in this age of astounding discoveries, it is hardly unreasonable to expect any possibility from instruments. With an attachment of the microphone, telephone, and phonograph to the telegraph, students within reach of the stations might be furnished with lessons in practical auscultation, the character of which would shame the best-directed efforts of Clark, Flint, or Loomis, and the utility of which would transcend anything ever before attempted. When this shall have been accomplished, we will no longer be astonished at the possibility of looking through the skull for a congestion of the brain, of hunting with a crowbar for a urethral stricture, of demonstrating a spinal centre in the clitoris, of proving that antiseptic spray kills bacteria, or of discovering the real syphilitic corpuscle. But let us be patient.

#### THE REPORT OF THE SECTIONS.

In consequence of the press of other material we are unable to complete in our present issue the reports of all the Sections of the American Medical Association.

As it is, we have done our best to give the usual variety to our readers, and will strive to complete our report in our next.

## Reviews and Notices of Books.

MEDICAL REGISTER FOR NEW YORK, NEW JERSEY, AND CONNECTICUT, 1878, 1879. W. T. WHITE, M.D., Editor. 12mo, pp. 212.

This annual, which commences the year from June 15th, again makes its welcome appearance, and again invites a favorable word of comment upon its general plan and make-up.

The volume is somewhat smaller than its predecessor, which is a recommendation in its favor. All the old features which have made the book so popular have been preserved, and there is the usual evidence of accuracy of lists of names and of items of information regarding medical societies and institutions. It would be impossible to detail the different matters which are treated of in the little volume, except in a general way to say that for the purposes for which it is intended it is scarcely susceptible of improvement. This statement carries with it well-deserved commendations for the editor, Dr. W. T. White. The work was issued promptly on the date promised, which is a circumstance sufficiently unusual with those of its class to deserve a passing allusion.

## Reports of Societies.

### AMERICAN MEDICAL ASSOCIATION.

#### REPORT OF SECTIONS.

#### SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

DR. E. W. JENKS, of Detroit, Mich., Chairman.

DR. H. O. MARCY, of Cambridge, Mass., Secretary.

#### TUESDAY, JUNE 4TH—FIRST DAY.

The Section was called to order at 3 P.M., by the Chairman.

The first paper read was by DR. THEOPHILUS PARVIN, of Indiana, on

#### OVOTOMY.

Dr. Parvin applied the term ovotomy to any cutting operation for the removal of the ovum.

He recognized *six* varieties of ovotomy:—1. Abdominal. 2. Vaginal. 3. Uterine. 4. Abdomino-Cystic. 5. Abdomino-Uterine. 6. Abdomino-Vaginal.

To the last two varieties Dr. Parvin made special reference; the first four varieties being mentioned in order to make the classification complete.

Attention was first directed to the history of abdomino-uterine ovotomy, or Caesarean section, and the opinions of standard authors were quoted with reference to the indications for the performance of the operation.

Reference was then made to the history of abdomino-vaginal ovotomy, or the operation which, by Dr. T. G. Thomas, of New York, had been named laparotomomy.

With reference to those operations and the opera-



tion of embryotomy, the following important questions were to be considered:

How far should abdomino-vaginal ovotomy supplant abdomino-uterine ovotomy, and how far should either take the place of embryotomy? The chief dangers attending the last two varieties of ovotomy were then considered, and the conclusion reached that, taking into consideration shock, hemorrhage, peritonitis, etc., the abdomino-vaginal operation would not be performed where the diameter of the pelvis was two and one-half inches. His closing words were as follows:

"Qualifying, therefore, as possibly must be done, some of the advantages claimed for abdomino-vaginal ovotomy, it still remains, and must remain until facts are adduced contradicting those of Drs. Thomas and Skene, one of the most important advances in obstetric surgery. But certainly the future will not see it performed, as Baudelocque did in a case where the antero-posterior diameter of the superior strait was about four inches; nor until the confirmation of fortunate results obtained by Thomas and Skene will it be generally resorted to when that diameter is two and one-half inches."

DR. DE L. MILLER, of Chicago, concurred in the conclusions reached by Dr. Parvin.

DR. J. C. REEVE, of Dayton, O., referred to the danger of wounding the bladder, and directed especial attention to such liability under the management of the *ordinary operator*; in the hands of *skilled operators* that liability might be very much reduced.

DR. E. S. DUNSTER, of Ann Arbor, Mich., thought that the time had not yet arrived at which the status of abdomino-vaginal ovotomy, or Thomas's operation, could be determined. It was impossible to generalize from so small a series of cases as had been reported; but a sufficient number of successful cases had been gathered to warrant us in pursuing the subject still further.

As compared with Cæsarean section he was of the opinion that Dr. Thomas put somewhat a false estimate upon it. For, peeling up the peritoneum instead of cutting it, did not rid it of the danger of inflammation. Dr. Dunster thought that the danger of inflammation in Dr. Thomas's operation was entirely underestimated, but when it was coupled with the danger of cellulitis, the dangers of the operation were quite as great as those which followed Cæsarean section. It was possible that the future might place the operation upon nearly the same platform as that now occupied by ovariectomy, although we could never, as a matter of course, have the same amount of experience in its performance. Dr. Dunster believed that it would be prudent to reserve our decision in making an estimate of the value of the operation, and simply say that experience so far was encouraging, and was sufficient to warrant us in pursuing the investigation. He thought it had been proved that the dangers of the Cæsarean section had been overestimated, and that if the operation was performed earlier than it had usually been, probably better results than have been reported would be obtained.

DR. HORATIO R. STORER, of Newport, R. I., thought that the profession was not prepared, in want of farther evidence, to accept as a measure and indiscriminately follow the revival of an operation long ago known. So far, however, as directing attention to, or making new suggestions with reference to an old operation, very great service had been rendered to the profession by the report of cases such as had been given us by Dr. Thomas and Dr. Skene.

With reference to the Cæsarean section, the history

of the cases in which it had hitherto been performed had been extremely faulty in many particulars. Not only had the operation been postponed until the woman was practically moribund, but sufficiently minute data had not been furnished with reference—

1. To the simple opening of the abdomen.

2. With reference to the treatment of the uterus after the incision had been made.

There was a great diversity of opinion among writers upon that point.

3. Operators had, in many instances, failed to properly auscultate the abdomen with the view of determining the seat of the placenta.

4. There was a material difference of opinion with reference to what method should be employed for securing subsequent drainage.

In addition, Dr. Storer believed that there were many instances in which the question of ovotomy was distinctly presented:

*First.* After supposed death of the mother, and with the hope of removing and saving the child.

*Second.* In cases of rupture of the uterus; and

*Third.* In cases of extra-uterine pregnancy.

DR. JENKS, of Detroit, did not disapprove of the operation of laparo-elytrotomy, or abdomino-vaginal ovotomy, but he thought we were not yet in a position to adopt it as a substitute for Cæsarean section. Perhaps in the hands of expert operators the operation could be resorted to with advantage, but for the ordinary operator he regarded it as a much less available operation.

DR. ALBERT H. SMITH, of Philadelphia, remarked that he felt compelled to endorse the view taken by Dr. Parvin with reference to the operation under consideration. He was of the opinion that Dr. Thomas had not established any immunity from peritonitis by his operation. There was no guaranty that the operation could be performed without involving the peritoneum except in the hands of experts like Dr. Thomas. In quite a number of the cases which had been operated upon the bladder was lacerated. The amount of outrage committed upon the os uteri and the tissues surrounding it was very great, and exposed the woman to disastrous results. We were obliged to operate and draw a child through an undilated os, and to do that with the haste which had seemed necessary, laceration was liable to occur, and the peritoneum to become involved. He was not able to grant that Dr. Thomas had given any good reason why the operation of laparo-elytrotomy should take the place of the Cæsarean section, which, if performed earlier, might be successful in a vast majority of cases.

On motion made by DR. JAMES P. WHITE, of Buffalo, the paper was referred to the Committee on Publication.

The Section then adjourned, to meet on Wednesday at 3 P.M.

#### WEDNESDAY, JUNE 5TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

#### HOOR-GLASS CONTRACTION OF THE UTERUS PRIOR TO EXPULSION OF CHILD.

DR. THAD. A. REAMY, of Ohio, read a paper upon the above subject, and related the history of a case which occurred in the practice of Dr. J. B. Edwards, of Xenia, Ohio.

The points of interest in the case related were:

1. The perfect coaptation of the abdominal wall to the external shape of the uterus.

2. The extraordinary fact that the direction of the contraction in one case was not circular, but oblique.

3. The singular fact that regular contraction and relaxation occurred above the point of constriction, with complete paralysis below that point.

4. The marvellous power exerted by the muscular fibres causing constriction.

5. The influence in one case of prolonged anaesthesia in overcoming spasm, which was, at first, but little affected thereby.

This complication of labor was regarded as rare, and the causes of the irregular contraction were regarded as conjectural.

Dr. H. O. MARCY, of Cambridge, Mass., referred to cases reported by Alfred Hosmer in the *Boston Medical and Surgical Journal*, in which a condition similar to that alluded to by Dr. Reamy had been found in the cervix.

Reference was farther made to Wm. Hunter's plates, showing the physiological condition of the cervix at full term; the cervix was much larger than was generally described, or by us estimated. Perhaps it was at the cervix that those contractions existed, the cervix being one-fourth or one-sixth the entire organ.

Dr. MILLER, of Chicago, referred to a case in which irregular contraction of the uterus was produced by the fetus on account of a diminished quantity of liquor amnii. That explanation, however, might not be applicable to the cases reported by Dr. Reamy.

Dr. DUNSTER regarded cases of irregular contraction of the uterus as among our physiological puzzles.

Dr. W. W. PORTER, of the University of Syracuse, N. Y., referred to a case in which relaxation of such contraction was effected by an emetic.

Dr. STORER regarded the suggestion made by Dr. Porter as a valuable one.

Dr. TRENHOLME, of Montreal, speculated with reference to the causation of irregular contraction of the uterus.

Dr. PARVIN referred to the question of treatment when such irregular contractions were present. The treatment adopted by Dr. Edwards, in the case reported by Dr. Reamy, had been to force the hand through the constriction, and within an hour the woman died, and was said to have died of shock. Was not death hastened by persistent effort to overcome the resistance by manual interference? Would it not have been better practice to have waited a little for relaxation, inasmuch as there was no special reason why the placenta should be immediately removed?

Dr. BAKER, of Whitesboro, suggested the use of atropia instead of emetics to produce relaxation of rigid os.

Dr. BONTECUE, of Troy, favored the use of atropia in that class of cases.

Dr. REAMY remarked that the constriction in his case was not at the os internum; it did not correspond to the circular fibres of the os internum. He regarded all the explanations concerning the condition in this class of cases as unsatisfactory. He doubted extremely the propriety of Dr. Edwards's treatment so far as manual interference was concerned, and also the use of one-quarter-grain doses of morphine; his object, however, had been not to speak of treatment or causation, but to direct attention to features specially interesting in the condition found.

SUB-COMMITTEE TO WHICH PAPERS WERE REFERRED.

On motion, a committee of five was formed, to which all papers presented to the Section should be referred. The committee consisted of the Chairman,

the Secretary, and Drs. E. S. Dunster, of Mich., De L. Miller, of Ill., and Albert H. Smith, of Pa.

Dr. HORATIO R. STORER, of Rhode Island, then read a paper on

#### THE FREQUENTLY GYNECOLOGICAL ORIGIN OF INHERITED FORMS OF STRUMOUS DISEASE, AND THE CONSEQUENT INDICATIONS FOR TREATMENT.

"The prevention of disease," said Dr. Storer, "is more important than its cure," and he then proceeded to discuss the relation which struma and syphilis had to each other. Much could be done in removing syphilis by the firm tread of the law, but there were *five* points with reference to the main question which were within our province:

1. Syphilis, like other toxæmia, was more prone to become constitutional in the strumous than in the perfectly healthy subject.

2. Struma, the result of syphilis, was comparatively seldom recognized during life, and still more infrequently received appropriate treatment.

3. Syphilitic struma, personal or by heredity, was in no sense self-limited.

4. Predisposition to syphilis by heredity, both of itself and as affected by struma, was much more frequently intense than generally supposed.

5. Transference of primary syphilis, sometimes by perfectly healthy women who were entirely free from specific disease, was an element not to be overlooked in discussing syphilitic struma.

Dr. Storer believed that a sufficient number of perfectly healthy women could transfer the contagion to keep up the disease indefinitely. He also maintained that consumption was caused by syphilis; that the contagiousness of phthisis was established; that syphilis was never entirely eradicated from the individual; and that it was possible to diagnose between syphilis and struma by means of the microscope.

The *five* propositions being admitted, it followed:

1. That the more completely we prevented [by wise sanitation], controlled [by intelligent supervision], and perhaps, cured [in certain cases by specific treatment] phthisis and other forms of strumous disease, to such an extent did we limit the probable infection, propagation, and intensity of syphilis.

2. Similarly, that the more actively we endeavored, by public and private measures other than those now indicated, to absolutely eradicate syphilis from any community, to such an extent did we limit the occurrence, personally and by inheritance, of the various forms of strumous disease; and that

3. *A fortiori*, and even to a greater extent than had as yet been or could be effected by governmental or private attempts to control venereal, by examining for, or by treating its primary lesions by themselves, and thus remove from our midst a large moiety of the material upon which the disease has thus far subsisted, we might hope eventually to get its upper hand. It would be an added triumph for gynecology, for the most real practical steps towards that great end would prove, upon the large and effectual scale, to have initiated from ourselves.

The paper was referred to the Sub-Committee.

#### NEW CLAMP FOR PERINEORRHAPHY.

Dr. W. W. MUNSON, of Otisco, N. Y., exhibited a new clamp as a substitute for Baker Brown's quills. It consisted of an ordinary hard rubber quill, with buttons attached to prevent it from rolling. The wire passed through, and was fastened around the button. The advantages claimed for it were:

1. Ease of application;



2. Only one wire passed through the tissue; and,
3. The wire could be loosened or tightened without cutting.

The instrument received favorable mention from Dr. Albert H. Smith, of Philadelphia, and Dr. E. S. Dunster, of Mich.

#### NEW METHOD OF DENUDING TISSUES IN THE RESTORATIVE SURGERY OF THE FEMALE PELVIS.

DR. ALBERT H. SMITH, of Philadelphia, described a new method of denuding tissues, which was regarded as especially valuable when it was desirable to secure fresh tissue without much loss of substance. For that purpose he recommended the use of a burr, considerably larger than the dental burr, which could be brought in contact with the surface while in rapid rotation by means of a dental engine. It was especially applicable in Emmet's operation, after the surface to be denuded had been marked out with a sharp-pointed bistoury.

Dr. WM. B. ATKINSON, of Philadelphia, exhibited a

#### NEW CEPHALOTRIBE,

devised by Dr. Wallace, of Philadelphia, after which the Section adjourned, to meet on Thursday at 3 P.M.

#### THURSDAY, JUNE 6TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman.

On motion, the Chairman's address was referred to the Committee on Publication.

#### CONNECTION OF THE HEPATIC FUNCTIONS WITH UTERINE HYPERÆMIAS, FLUXIONS, CONGESTIONS, AND INFLAMMATIONS.

DR. LEVI F. WARNER, of Boston, presented a paper upon the above subject, which was a substantial plea in favor of constitutional treatment for pelvic disease occurring in the female.

Dr. Warner believed that much harm had been done by the argument that, because we knew but little about the action of medicines, we should be very sparing in their use; and also by the doctrine of self-limitation of disease. Disease, instead of being self-limited, might in many cases be limited by a judicious course of treatment. The presumption of self-limitation of disease in a physiological sense was a misnomer. Dr. Warner believed that there was an intimate connection between uterine and hepatic disease, and *vice versa*. His conclusion was, that the successful treatment of uterine hyperæmias, congestions, fluxions, and inflammations depended as often upon measures which were constitutional as upon those which were strictly local, and that sometimes without such constitutional measures cure was impossible.

Dr. STORER regarded the paper as a step in the right direction. For, while he considered the pelvic organs second to none in economy, he did not regard the uterus and the ovaries as the only organs in the economy; and he believed that the practitioner who treated the uterus and ovaries, forgetting the liver, the brain, the stomach, the spleen, and other organs, was acting unscientifically, unprofessionally, and, in many cases, unsuccessfully.

Dr. BARTLETT, of Wisconsin, remarked that the older he grew the more he found it necessary to attend to general conditions, and the less reliance he placed upon purely local treatment in the entire class of pelvic affections. He spoke approvingly of the paper.

Dr. MARCY thought that the danger of to-day was that young men were graduated into specialties which they went out to practise, thinking that they knew more than any one else. The character of *all* the symptoms should be carefully noted before prescribing for any individual case.

The paper was referred to the Sub-Committee.

#### INDICATING UTERINE SOUND.

Dr. MARCY exhibited an indicating uterine sound which had been devised by Charles R. Jennison, of the firm of Codman & Shurtleff, Boston. It was so constructed that pressure upon one end caused the other end to curve in the opposite direction.

#### THE SURGICAL TREATMENT OF UTERINE FIBROIDS.

Dr. JOHN C. IRISH, of Lowell, Mass., presented a paper upon the above subject, in which he recommended removal of the uterus in the treatment of fibroids whenever they would certainly eventuate in the death of the patient at no distant period. Under such circumstances it was most emphatically our duty to give the woman the last remaining chance for life that the operation offered. It could not have so extended a range of usefulness, nor would it furnish so brilliant results as ovariectomy, yet he believed that it would render good service in the saving of human life.

The paper was discussed by Drs. A. H. Smith, of Philadelphia, and E. S. Dunster, of Ann Arbor.

#### UTERINE FIBROIDS TREATED BY ELECTROLYSIS.

Dr. EPHRAIM CUTTER, of Boston, Mass., gave a brief *résumé* of the treatment of fifty-eight cases of uterine fibroids by electrolysis as practised by Dr. Gilman Kimball, of Lowell, Mass., and himself.

Reference was first made to those cases in which electrolysis was applied without anaesthesia.

The difficulty which was first experienced in introducing the needle into the dense fibroid without having it twist in the hand of the operator was referred to, and such difficulty had led to the use of a needle having very much the shape of a surgeon's grooved director.

The results obtained in a little over fifty cases, as given from memory, were as follows: There were four deaths. There were seven cases in which no relief had been obtained.

In three cases relief from symptoms had been obtained, but the size of the tumor remained unchanged.

Four cases were entirely cured.

In thirty-two cases the tumors had been diminished in size, and relief of symptoms had followed the operation. In these cases the operation was simply undertaken to arrest the growth of the tumor. In the great majority of them the growth was arrested, and the average reduction in the size of the tumor was one-third in cases in which any diminution in size occurred. The peritoneal inflammation which had followed the operation had been very slight, and of brief duration.

In one case abscess was formed. The puncture was about one and a half inches deep, and the abscess was about four inches deep. In one case fistulous openings were created by the improper protection of the needle where it passed through the skin.

They continued to use the same kind of battery as at first, namely, one with large plates. It was their impression that what was needed for the operation was quantity and not intensity of the electrical current.

It was their opinion also that it was not advisable to prolong the operation over fifteen minutes; from

five to ten minutes was an average length of time. In no case should the operation be performed at the office of the physician. The first operation should not be continued longer than three minutes.

In a majority of the cases the needle was introduced into the tumor through the abdominal wall, but there was no rule with reference to that point. In one case both electrodes were introduced through the rectum. Of the two outlets, they preferred the rectum to the vagina.

The manner of introducing the needle was regarded as important; it should be introduced with a single thrust. The manner of its withdrawal was also important; firm compression of the tissues surrounding the needle should be made, in order to prevent separation of the various layers, and then the needle withdrawn quickly. Since they had used anesthetics no alarming symptoms had been developed in the way of shock, etc., and Dr. Cutter believed it to be unwise to attempt to perform the operation without the aid of an anæsthetic.

DR. GEORGE M. BEARD, of New York, remarked that he began to experiment with reference to the electrolytic treatment of fibroids of the uterus in 1870, and used a long, spear-shaped electrode, something like that described by Dr. Cutter. He then used only one pole, the negative, and through the vagina. Afterwards, he carried on the same line of investigation with reference to other tumors, and had noticed with reference to electrolytic treatment of fibrous tumors about the neck, that some of them went down rapidly under treatment, and never returned, while others were reduced perhaps twenty-five per cent. in size, and then remained permanent. He agreed with Dr. Cutter with reference to the use of a mild current, and the time to be occupied at each application.

Safety was an important element in the operation, and to that end Dr. Beard recommended that the negative pole should be first used, and perhaps afterwards both poles might be employed. In some cases good results could be obtained by the use of the negative pole alone. He had sometimes used the faradic current without the needle. The accessory symptoms connected with uterine fibroids, such as excessive hemorrhage, anæsthesia, neuralgia, and the various effects upon the general nervous system, were almost always greatly and quickly relieved by either method.

With regard to the battery, he thought it made no difference what kind was used, provided we had any of those now manufactured. The battery with large plates, such as used by Dr. Cutter, gave no more electricity than one with smaller plates, as could be mathematically demonstrated by Ohm's law. The important point was to begin with small currents.

He believed introduction of the needle into any part of the abdomen could be done without any injury whatever.

DR. MUSSEY, of Ohio, referred to cases in which he had afforded relief from the symptoms attending uterine fibroids by the use of the electric current applied externally. It was his opinion that most of the thirty-two cases mentioned by Dr. Cutter would have done as well by the use of the electric current applied externally as by the use of the needles.

DR. J. J. CALDWELL, of Baltimore, believed that uterine fibroids could be benefited by the external application of electricity. He preferred galvanism to the faradic current.

#### BATTEY'S OPERATION FOR EXTIRPATION OF THE OVARIES.

A paper upon the above subject was presented by DR. GEORGE J. ENGELMANN, of St. Louis, Mo.

In it were considered the dangers and the difficulties of the operation, and, although one of its advocates, yet Dr. Engelmann believed its dangers were greater than had been supposed. In average cases the dangers were greater than in ovariectomy; and its dangers were greater than Battey's own cases would lead us to conclude. It was more dangerous than ovariectomy because: 1. It was a more delicate and difficult operation; 2. Because the pedicle could not be fastened in the abdominal incision except in a few exceptional cases; and 3. The pedicle in the abdominal cavity was in a most favorable condition to respond to irritation.

After a few remarks by Dr. Trenholme, of Montreal, the paper was referred to the Sub-Committee.

On motion by Dr. Smith, of Philadelphia, the thanks of the Section were tendered to Dr. Jenks, Chairman, for his able address.

Thanks were returned to the Secretary, and the Section adjourned.

#### SECTION ON SURGERY AND ANATOMY.

DR. HENRY H. SMITH, of Philadelphia, Chairman.  
DR. E. T. EASLEY, of Little Rock, Ark., Secretary.

TUESDAY, JUNE 4TH—FIRST DAY.

The Section was called to order at 3 P. M. by the Chairman.

A sub-committee of five, consisting of Dr. A. C. Post, of New York City, Dr. Watson, of Jersey City, Dr. F. Hyde, of Cortland, N. Y., and the Chairman and Secretary of the Section was appointed, to which all the papers read before the Section should be referred.

DR. LUCIEN HOWE, of Buffalo, presented a patient upon whom plastic operations had been performed for the formation of a new eyelid.

#### EXCISION OF THE DIAPHYSIS OF THE TIBIA.

DR. C. C. F. GAY, of Buffalo, read a paper upon the above subject, and it received the usual reference.

#### SEPTICÆMIA FOLLOWING RESECTION OF BONES

was the title of a paper read by Dr. S. H. WEEKS, of Portland, Me.

The paper was discussed by Drs. Keller, Woodward, Waterhouse, and Weeks, and referred to the Sub-Committee.

#### TRACHEOTOMY WITHOUT TUBES.

DR. HENRY A. MARTIN, of Boston, read a paper upon the above subject, in which he claimed that it was the office of the physician not only to attempt to restore to health but to mitigate pain, and to mitigate pain not only when such mitigation might conduce to recovery, but when it might serve to assuage the pains and agonies of death. He was an advocate of tracheotomy in croup. His method of performing the operation was to make the ordinary incision into the trachea, introduce silver wires into the edges of the wound and secure them behind by means of an elastic band. By keeping the opening patent in that manner the danger from obstruction of the tubes was avoided, and the patient could be left in the care of the nurse with comparative safety. Dr. Martin first performed the operation in that manner thirty-five years ago.

The paper was referred without discussion.

#### NEW METHOD OF CUTTING BANDAGES.

DR. MARTIN exhibited roller bandages which had



been cut in an ordinary turning lathe. They were made from cross-barred wiggins in the following manner: A piece of the material, of any desired length, was tightly wound upon a stick like a window-curtain roller, then put into a turning lathe and cut into bandages of any width by means of the workman's pointed chisel.

#### IDENTITY OF HOSPITAL GANGRENE WITH DIPHTHERIA

was the title of a paper read by DR. JOHN D. CARPENTER, of Pottsville, Penn.

Dr. Carpenter's conclusions were based on observations made in 100 cases of hospital gangrene occurring in an army hospital at Cincinnati in 1861, and subsequent observations. He was persuaded that the disease depended upon a specific cause, diphtheria, which by attacking a wounded surface produced a condition known as hospital gangrene, which could be communicated to persons in private life as well as to those congregated in hospitals. His conclusions were as follows:

Hospital gangrene and diphtheria were identical in the following particulars,

1. In their causation—by an atmospheric contagion, becoming epidemic under suitable circumstances.
2. In the interchangeableness of their miasm—either disease was capable of propagating the other.
3. In their pathological features—exudations, ulcerations, mortifications, hemorrhage, erysipelas and general blood-poisoning.
4. In the double form of each disease—simple, catarrhal or pulpy and malignant ulceration or phagedenic.
5. In the local infection as being preliminary to the general disease.
6. In the parallel methods of cure, and in the identical remedies used with success in both diseases.
7. In the similar modes of death, and particularly the comparative frequency of heart-clot in both diseases.

In absence of Dr. D. M. Clay, of Shreveport, La., his paper on

#### PERITYPHLITIC ABSCESS

was read by title, and referred to the Sub-Committee.

#### SUPPLEMENTARY REPORT ON POTT'S DISEASE.

DR. LEWIS A. SAYRE, of New York, made a supplementary report on Pott's disease. He declined to submit it to the committee, as he wished to present it in a more complete form at the next meeting of the Association. One object in view, in calling the attention of the Section to the subject, was to secure the aid of the members in collecting cases which had been under treatment by means of the plaster-of-Paris jacket; what their condition was when treatment was commenced; how long treatment was continued; the results obtained; and, if cured, how long the treatment had been discontinued. Dr. Sayre gave the following synopsis of his supplementary report:

It embraced the complete history of 125 cases of spondylitis. More than double that number had been treated; but their histories were yet incomplete, and, therefore, they were not embraced in the report.

The ages of the cases reported varied from 4 to 53 years.

The condition of the spine varied from the slightest curvature, of few months' standing, to the most aggravated deformity, complicated with abscesses and paralysis.

All the cases had been treated by suspension and the plaster-of-Paris jacket.

Many of them had been treated by the use of various braces from two to fourteen years, and in each instance the disease was progressive when treatment by suspension and the plaster bandage was commenced. In every case relief was given by suspension, and in many the relief from pain was complete. In several cases, the paralysis was so far relieved that they were able to move their limbs as soon as the plaster dressing had "set." In some instances the patients were able to walk within twenty-four hours. Special mention was made of the following case: A male, *et.* 53, had suffered from spondylitis of dorsal vertebrae since 11 years old. He had worn braces of various kinds continuously for over twenty years. He had had complete paralysis of both lower extremities for three years and eight months, and had suffered such pain as required the continued use of hypodermic injections of morphine and opium suppositories. He was *immediately* relieved of all pain the moment he was suspended. He was able to move his legs with ease forty-eight hours after the application of the plaster jacket. At the end of five days he was able to walk. His improvement had continued, and he was able to attend to his regular business as an artist. The first jacket was worn three months. The second was worn three weeks, when it was cut down, properly bound with leather, supplied with straps and buckles, and then worn as a corset. His health was excellent.

Among all the cases treated, only two deaths had occurred. One patient, 33 years of age, died of aneurism of the aorta. Another, a boy 11 years old, was thrown from the upper berth of a sleeping-car, and died within a few hours. No post-mortem of the last case could be obtained.

#### PLASTIC SURGERY

was the title of a paper read by DR. A. C. POST, of New York. Two cases of blepharoplasty were reported, with remarks. One was a case in which the lower eyelid had been removed for epithelioma. The other was a case of ectropion of both eyelids. Both were severe cases. In the first case the operation was very successful. In the second case the eversion was overcome by a series of operations, so that in the course of one year slight inversion was produced. In the progress of the second case it was demonstrated that wounds of recently transplanted tissue underwent more rapid, more perfect healing, and with less scar than wounds of the skin in its normal relation.

#### SENSIBILITY OF THE TRANSPLANTED FLAPS.

The sensibility of the two flaps in the second operation differed in this respect: in the flap removed from the temporal region the sensibility was referred to the part from which the flap was taken; while in the flap taken from the cheek the sensibility was referred to the position occupied by the flap after its transplantation.

#### FORMATION OF EYEBROWS.

New eyebrows were formed from the cutaneous flaps taken from the temples. That fact was regarded, as almost unique. Dr. Pancoast, of Philadelphia, had in one case had the same result, but it had not been reported.

#### PREVENTION OF SEPTICÆMIA IN SURGERY—NEW PRINCIPLE IN THE USE OF DRAINAGE TUBES—PROPHYLAXIS BY MEANS OF CARBONIC ACID GAS.

DR. E. M. MOORE, of Rochester, read an interesting paper upon the above subject, of which the following is an abstract:

Dr. Moore opened his remarks by calling attention to the effect of outflow of blood in the act of dressing a wound, being a preventive of septicæmia, by excluding the contact of air, and when the deep parts were compressed the union by adhesion was rendered more likely. That comported with surgical experience. But when suppuration was inevitable, the drainage-tube should be used *at once* before exudates had occurred, and those should be removed as fast as thrown out. The principle was illustrated by a case of gunshot wound of the knee, which was penetrated at the upper part by a charge of shot and slugs, crushing the patella, and opening the joint freely. The joint was cut open for three inches, and a counter-opening made, through which a drainage-tube of rubber, with holes in the sides, was drawn. That was connected with a fountain-syringe, which was filled with water at 105° Fahrenheit every half hour. That was continued for a week. Afterwards the water was not used as often. The knee was enveloped in cotton, surrounded by sheet-rubber. That was kept wet with water at the same temperature. The patient, a youth of seventeen, made a good recovery with ankylosis. The pulse never rose above 110, and continued at that point for a few days only. At no time did any alarming symptoms appear. The plan of putting in a drainage-tube *before inflammatory symptoms appeared*, and thus removing the secretion at once, was thought to be uncommon practice, though that of using them *after* suppuration was common enough.

#### CARBONIC ACID GAS AS A PROPHYLACTIC OF SEPTICÆMIA.

But the plan that was claimed to be new, was a proposed prophylaxis by exclusion of air during an operation, by occupying the space with carbonic acid gas. This was poured from the large mouth of a funnel over the abdomen, before the cut was made in the linea alba, in a case of ovariectomy, and continued without a moment's pause to the end of the dressing. The gas was contained in a rubber-bag, and passed through water at the temperature of 105° Fahrenheit. No toxic effect of any kind followed. The patient recovered without the development of any severe symptoms, and very rapidly.

The paper was referred to the Sub-Committee.

The Section then adjourned, to meet on Wednesday at 3 P.M.

#### WEDNESDAY, JUNE 5TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

DR. MOSES GUNN, of Chicago, occupied the chair while the Chairman, DR. HENRY H. SMITH, of Philadelphia, gave

#### DEMONSTRATIONS FROM PREPARATIONS OF CERTAIN POINTS IN THE PATHOLOGY OF BONES, ESPECIALLY TUBERCLE.

Specimens from the elephant, the ox, and the human femur were exhibited, showing the cancellated structure of bone, and also specimens of intervertebral cartilage.

A specimen was exhibited to demonstrate that the round ligament at the hip-joint arose directly from the bone itself.

The demonstrations were to prove that tubercle was deposited in the cancellated structure of bone, and was the foundation for diseases of the joints.

Discussion followed, and was participated in by Drs. J. W. S. Gouley and Lewis A. Sayre, of New York.

DR. GORLEY believed that tubercle could not be deposited in the cancellated structure of bone, for the reason that two bodies could not occupy the same place at the same time. The bone-cells must be changed or destroyed thereby, making place for tubercle, if it was present; it was not a deposit.

DR. SAYRE referred to a case of hip-joint disease, which he saw in consultation with Sir James Paget and Wm. Adams, of London. The patient was a child, who had received an injury to the hip by a fall two years previous to the consultation. Hip-joint disease was diagnosed by Paget, Adams, and Sayre. He was the last male descendant from an ancient family in Ireland, whose genealogy had been traced back for *eight* generations. One branch of the family had twenty-two members who lived to the average age of ninety years. Out of the entire family only seven persons had died of any scrofulous disease, and those cases could be traced directly to intermarriage with families in which scrofula existed. The case was regarded as unmistakable evidence that joint disease could be produced by external violence, independent of constitutional disease.

Dr. Smith resumed the chair.

#### EXTIRPATION OF THE THYROID GLAND WITH SPECIMENS.

DR. JULIUS F. MINER, of Buffalo, read a paper upon the above subject, in which he first alluded to the general condemnation of operative procedure for the removal of the gland in cases of goitre.

The operation, however, had been successfully performed, and to the successful cases already reported Dr. Miner added *THREE*, the histories of which he gave, and exhibited the specimens to the Section.

DR. SAYRE, of New York, mentioned a case in which the thyroid gland was successfully removed, and the woman made a good recovery.

#### DISEASE GERMS, THEIR ORIGIN, NATURE, AND RELATION TO WOUNDS.

DR. B. A. WATSON, of Jersey City, N. J., read a lengthy paper upon the above subject, and reached the following conclusions:

*First.* That there were certain germs in the air, more particularly in the atmosphere of overcrowded hospitals, which, if permitted to enter wounds, gave rise directly to living organisms, and to inflammation and suppuration; and indirectly to all septic conditions which were found as wound complications.

*Second.* That the successful management of wounds depended principally on the ability of the surgeon to keep the wounds under all circumstances and at all times free from germs and living organisms; and, therefore, the value of any method of wound treatment depended primarily on the degree of antiseptics which could be obtained by it.

*Third.* That the occasional discovery of a few bacteria in a wound which had been treated antiseptically, did not disprove the fact that those bacteria arose from germs; but might be satisfactorily explained in a variety of ways, especially by the existence of germs which had not been destroyed by the means employed.

On motion, all papers read by members of the Sub-Committee were referred to a Special Committee consisting of Dr. Hodges, of St. Louis, and Dr. Hutchinson, of Brooklyn.

Dr. Watson's paper was referred to the Special Committee.

DR. FREDERICK HYDE, of Cortland, N. Y., read a paper on



## THE PROCESS OF REPAIR IN WOUNDS WITH AND WITHOUT ANTISEPTIC TREATMENT.

Dr. Hyde did not reject the antiseptic plan of treatment, but believed that the success of any plan of treatment of wounds depended very much upon the condition of the patient. If in good condition a much richer quality of healing material was afforded than when the constitution was in a depraved condition. With reference to the plan of treatment to be adopted, Dr. Hyde believed that it should first aim to protect the purity of the primary exudation, that it might become as soon as possible fibro-cellular tissue, and maintain its just relations to the sundered, injured textures, that its advancing development might not be hindered, but on the contrary, made as summary as possible.

The paper was referred to the Special Committee.

## CONSERVATIVE SURGERY IN COMPOUND FRACTURES.

DR. ROBERT BURNS, of Frankford, Philadelphia, read the history of a case of double compound comminuted fracture of the humerus, and compound fracture of the radius and ulna in four places. The limb was saved by conservative treatment, which consisted in placing it in a rough-shaped wire splint in a bed of soft oakum, and meeting indications as they arose. It was kept wet with a lotion consisting of acetic acid, whiskey, carbolic acid, and water.

The paper was referred to the Sub-Committee.

## COMMUNICATION FROM DR. BATTEY, OF ROME, GA.

The Secretary read a communication from Dr. Battey, announcing his inability to be present at the meeting of the Association. His paper on

## PERMEABILITY OF THE ENTIRE ALIMENTARY CANAL BY ENEMATA

was read by title and referred to the Sub-Committee.

## CARCINOMA OF THE CONJUNCTIVA.

DR. A. N. BLODGETT, of Boston, read a paper giving the history of a case of carcinoma affecting the conjunctiva, with remarks concerning the pathology of the disease.

The paper was referred to the Sub-Committee.

## THE EXCISION OF PHALANGES OF THE FINGERS AND TOES.

DR. A. C. POST, of New York, read a paper upon the above subject, and demonstrated the propriety of resorting to excision instead of amputation in certain cases of angular deformity of the fingers and toes. The paper was referred to the Special Committee.

The Section then adjourned to meet Thursday, at 3 P.M.

## THURSDAY, JUNE 6TH—THIRD DAY.

The Section was called to order by the Secretary at 3 P.M., and, in absence of Dr. Smith, Dr. Hodgen, of St. Louis, was elected Chairman.

The first paper was read by DR. FRANK H. HAMILTON, of New York, on

## EXSECTION OF THE METATARSO-PHALANGEAL ARTICULATION IN VALGUS OF THE GREAT TOE.

On motion, the regular order of business was suspended, and DR. LEWIS A. SAYRE, of New York, exhibited a child that had been treated and cured of Pott's disease by the use of the plaster of Paris jacket.

The child had taken no medicine,\* and the deformity remaining was not very marked.

## SHORTENING IN FRACTURES.

DR. MOSES GUNN, of Chicago, offered the following preamble and resolution:

"Whereas, This Section having expressed an opinion upon the results of fractures of long bones; and

"Whereas, In general convention a member has asked and been accorded the privilege of recording his protesting vote; therefore

"Resolved, That this Section reaffirms its opinion that shortening in cases of fractures of the long bones is the rule in practice, regardless of any of the means of treatment now in use."

The resolution was warmly discussed, but almost unanimously adopted, Dr. Lewis A. Sayre, of New York, dissenting from the opinion expressed in the resolution, and requesting that his protest against its passage be placed on record.

The regular order of business was then resumed, and DR. JOHN H. PACKARD, of Philadelphia, read a paper on

## FRACTURES NEAR THE WRIST-JOINT.

The paper was discussed at considerable length by DR. E. M. MOORE, of Rochester; after which DR. THEODORE A. MCGRAW, of Detroit, Mich., read a paper on

## THE PATHOLOGY, DIAGNOSIS, AND TREATMENT OF CANCER.

The paper was referred to the Sub-Committee.

## A NEW USE OF CARBOLIZED LIGATURES

was the title of a paper read by DR. HENRY O. MARCY, of Cambridge, Mass.

The new use to which Dr. Marcy had put the carbolized catgut ligature was for the radical cure of hernia. The plan was to cut down upon the hernia, and then close the ring with the carbolized catgut ligature. He believed that the ligatures disappeared, and were converted into new connective tissue.

The paper was referred to the Sub-Committee.

## DETECTION OF MINUTE CALCULI BY AUSCULTATION WITH A NEW INSTRUMENT,

By DR. EDWARD ANDREWS, of Chicago.

Paper read by title and referred.

## CONCERNING THE NATURE OF GONORRHOEA.

By T. CLARY MADDOX, of Baltimore, Md. Explanation of those cases in which gonorrhœa had been succeeded by secondary syphilis, although the individual had never been infected by primary chancre.

Read by title and referred.

## DISCUSSION ON FRACTURES NEAR THE WRIST-JOINT.

DR. MOORE, of Rochester, resumed the discussion of Dr. Packard's paper on fractures near the wrist-joint. He described his method of reduction and plan of treatment, and said that in 150 cases he had had no deformity or shortening.

DR. F. H. HAMILTON, of New York, followed in the discussion, and gave his experience in the study and treatment of fracture of the radius near the wrist-joint. He had been able to treat them without shortening.

DR. SAYRE, of New York, asked Dr. Hodgen if he regarded the radius as one of the long bones?

DR. HODGEN replied in the affirmative.

DR. SAYRE then suggested that Dr. Gunn should modify his resolution with reference to shortening in

fractures of the long bones so that it would read fracture of the *shaft* of long bones, otherwise the Section would stultify itself by the action it had taken upon the question.

Dr. GUNN remarked that the suggestion involved only the difference between tweedle-dum and tweedle-dee.

Dr. HODGEN asked Dr. Moore if he had treated any of his cases of fracture of the radius at its lower extremity without subsequently leaving an abnormal prominence of the styloid process?

Dr. MOORE replied that formerly he saw such prominence, but that since he had learned how to reduce and treat the fracture properly he had not seen such deformity.

The Section then adjourned.

## MASSACHUSETTS MEDICAL SOCIETY.

*Annual Meeting held in Boston, June 11th and 12th.*

(Special report for THE MEDICAL RECORD.)

FIRST DAY—TUESDAY, JUNE 11th.

The annual meeting of the Massachusetts Medical Society was held in the Lowell Institute hall, Boston, on Tuesday and Wednesday, June 11th and 12th.

The President, Dr. WILLIAM COGSWELL, called the meeting to order at noon on Tuesday, and the reading of papers was begun.

### ANOMALIES IN PREGNANCY.

The first paper, on Anomalies in Pregnancy, was read by JOHN CROWELL, M.D., of Haverhill. Of such anomalies, he considered those of severe or uncontrollable vomiting and pyalism, unconscious pregnancy, and mistaken diagnosis in pregnancy. All these exceptional phenomena were illustrated by cases which had come under the observation of the reader. In the case of uncontrollable vomiting the only remedy which afforded relief was the subcutaneous injection of morphia, which was given every three or four hours in doses of from one-eighth to one-sixth of a grain. Although the drug was used during nearly the entire period of gestation, and was dropped immediately after parturition, the patient experienced none of the distressing results which often follow the protracted use of opiates, and she was delivered at full time, after a natural labor, of a healthy child.

### FLOATING SPLEENS.

F. C. SHATTUCK, M.D., of Boston, read the next paper, which was entitled Floating Spleens. The paper was based on a case which had come under the care of the writer. The literature of the subject shows fifty-one cases. The first recorded case was in 1581. The two chief factors in the causation of dislocation of the spleen are mechanical elongation of the ligaments by the traction of an enlarged organ, and undue congenital laxity or delicacy of the ligaments. Only eight out of the fifty-one cases occurred in males. The possible influence of pregnancy is suggested by the fact that the lesion occurs most frequently in females. Rupture of the gastro-splenic ligament is a fortunate thing for the patient, the traction on the fundus of the stomach having been known to result in gangrene of the gastric wall, and death. The diagnosis, prognosis, and treatment of the lesion were referred to. The question of treatment was considered from four points of view: according as it might seem desirable to do nothing; to attempt permanent reduction of the dislocated organ; to aim at alleviation or

possible cure by reducing the size; or to excise the organ.

### ABSENCE OF RESONANCE IN FIFTH RIGHT INTERCOSTAL SPACE DIAGNOSTIC OF PERICARDIAL EFFUSION

was the subject of a paper by THOMAS M. ROTCH, M.D., of Boston.

The paper was fully illustrated by diagrams and casts. The rules ordinarily given for the determination of pericardial effusion were stated by the writer to be somewhat erroneous. The diagnosis of the effusion is sometimes difficult; tapping has been resorted to and the heart punctured. The results obtained by the writer, from experiments made on the human cadaver, showed that any area of flatness on the left of the sternum may be that of an enlarged heart, but that extending two, three, or more centimetres beyond the sternum in the fifth right intercostal space was due to pericardial effusion. In such effusion this would be the point of election for the introduction of the trocar.

### THE MEDICO-LEGAL BRANCH.

The afternoon session was devoted to the reading of papers by the members of the Massachusetts Medico-Legal Society, a Society whose regular members are such Fellows of the Massachusetts Medical Society as have been appointed medical examiners.

Dr. A. HOSMER, President of the Medico-Legal Society, delivered an address. In it he stated the objects of the Society, as defined by its constitution, to be, to elevate the official character of the medical examiner, and to assist him in the discharge of his duties; to collect and utilize such facts as have a medico-legal value; to excite a general interest in the subject of forensic medicine, and to promote its successful cultivation. The duties of the present medico-legal examiner, as compared with those of the old coroner, were clearly set forth.

Dr. F. WINSON, the Secretary of the Society, stated that during the year there had been made by members of the Society 443 views and 116 autopsies; 21 prosecutions, and five convictions had resulted. It was suggested, in view of the frequency of deaths from drowning, that the State should furnish instruction in swimming and in the resuscitation of the drowned. Of fatal railroad accidents, one-half are due to the walking of persons, many of them intoxicated, on the track.

### THE THEORY AND PRACTICE OF INQUESTS.

THEODORE H. TYNDAL, Esq., read a paper concerning Coroners, and the Theory and Practice of Inquests. He stated that under the old law the coroner's work was useless because it had to be done over again by other officers. The coroner was both examiner and judge. Under the new law the duties of the medical examiner are clearly defined. He is only to determine whether violence has been committed. Who committed it, if another, and under what circumstances, are not to be sought after by the examiner, but by the judge.

Dr. R. H. FITZ presented a paper on the Value of Anatomical Evidence. Such evidence is physical. The group of lesions which will be found in a case of probable suffocation were accurately described.

Dr. E. S. WOOD, in a paper on the Relation which Chemistry bears to Forensic Medicine, gave practical directions as to how organs and their contents should be preserved by the examiner, in cases of death from suspected poisoning, and sent to the chemist.

Dr. F. W. DRAPER reported cases illustrating the



work and duties of the medical examiner. These cases illustrated the importance of the duty of the medical examiner in determining the question whether violence had been committed. In all of them foul play had been suspected, but the autopsies showed that death had resulted from natural causes.

A case of Arsenical Poisoning, with fatty degeneration of the liver, kidneys, etc., was read by Dr. J. G. PINKHAM. The reader emphasized the fact that in cases of poisoning by arsenic, phosphorus, and antimony, fatty degeneration of the liver, kidneys, etc., may occur within a few hours after the ingestion of the poison; and that in cases of general fatty degeneration of the organs the possibility of poisoning by these agents should be borne in mind.

#### SECOND DAY—WEDNESDAY, JUNE 12TH.

The Society was called to order at 9 A.M. After the business of the Society had been transacted, the reading of papers was resumed.

#### STRANGULATED HERNIA.

DR. C. N. CHAMBERLAIN presented a paper on a case of strangulated hernia, with remarks. He described a case upon which he successfully operated, after ill-judged and prolonged attempts at taxis had been made by others, and cathartics had been given. The writer clearly set forth the dangers which may arise from prolonged taxis and delay in cases of strangulated hernia before herniotomy is resorted to.

#### EARLY SYMPTOMS OF HIP DISEASE.

DR. E. H. BRADFORD, of Boston, read a paper on Early Symptoms in Hip Disease. The paper enforced the fact that muscular irritability is a sign of more importance than the presence or absence of pain in cases of hip disease. No joint can be considered healthy which presents evidences of muscular irritation. Such irritation causes contraction, especially of the adductors.

DR. S. W. FLETCHER discussed the topic of Filth and Typhoid Fever. He took the ground that filth alone does not cause typhoid.

DR. E. WIGGLESWORTH read a paper on the Metric System in Medicine.

DR. J. R. CHADWICK gave a short statement regarding the Boston Medical Library.

#### THE AWARD OF THE SOCIETY'S PRIZE.

It was announced that the Society's prize had been awarded to Dr. Thomas Dwight, of Boston, for an essay entitled "The Identification of the Human Skeleton: a Medico-Legal Study."

#### ANNUAL ADDRESS.

The annual discourse was delivered by Dr. FRANCIS MINOT, of Boston, on the Importance of the Medical Profession to the Public. He referred to the prosperous condition of the Massachusetts Medical Society; to the advance that has been made in recent years in medical education—especially by the Harvard Medical School; to the fact that ere long a course of four years' study would be required before the degree would be conferred. He referred to the question of the admission of women to the medical school and to the Society. He noticed the defects in the law which allowed any person styling himself a physician to sign a death certificate. The evils arising from the heating of houses with furnaces or with steam were alluded to. The subject of school hygiene was noticed, and the address concluded by commending to the

profession the Massachusetts Medical Benevolent Society.

At the conclusion of the address a vote of thanks was extended to the orator.

After the introduction to the Society of the President-elect at 1 o'clock P.M., the Society proceeded to the Music Hall to engage in the exercises of the anniversary dinner.

The next annual meeting of the Society will be held in Boston on the second Wednesday in June, 1879.

The following are the officers for the ensuing year: *President*, Dr. G. H. Lyman, of Boston; *Vice-President*, Dr. D. P. Smith, of Springfield; *Treasurer*, Dr. F. W. Draper, of Boston; *Corresponding Secretary*, Dr. C. W. Swan, of Boston; *Recording Secretary*, Dr. F. W. Goss, of Roxbury; *Librarian*, Dr. D. H. Hayden, of Boston. Orator for 1879, Dr. G. W. Garland, of Lawrence; Anniversary Chairman, Dr. C. C. Holmes, of Milton.

#### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 9 to June 15, 1878.*

BAILY, J. C., Major and Surgeon. To accompany troops ordered on campaign against the Bannock Indians in Southern Idaho; and to report in person to Major Geo. B. Sanford, 1st Cav., at Kelton Station, C. P. R. S. O. 79, Div. of the Pacific and Dept. of California, June 3, 1878.

WILLIAMS, J. W., Major and Surgeon. Assigned to duty at Fort Sill, Ind. T. S. O. 102, Dept. of the Missouri, June 5, 1878.

BROWN, H. E., Capt. and Asst. Surgeon. Assigned to duty as Post-Surgeon at San Antonio, Tex., to date from June 4. S. O. 118, Dept. of Texas, June 7, 1878.

KOERPER, E. A., Capt. and Asst. Surgeon. Assigned to duty with troops ordered from Camp Douglas, U. T., to temporary duty at Ft. Hall, Idaho. S. O. 50, Dept. of the Platte, June 5, 1878.

VICKERY, R. S., Capt. and Asst.-Surgeon. Leave of absence extended one month. S. O. 125, A. G. O., June 10, 1878.

PATZKI, J. H., Capt. and Asst.-Surgeon. To report in person to the Army Medical Board, New York City, for examination for promotion, and upon completion of examination, to the Comdg. General, Dept. of the East, for assignment to duty. S. O. 125, C. S., A. G. O.

KILBOURNE, H. S., 1st Lieut. and Asst.-Surgeon. Assigned to duty at Fort Riley, Kan. S. O. 102, C. S., Dept. of the Missouri.

BARNETT, R., 1st Lieut. and Asst.-Surgeon. Assigned to duty at Fort McKinney, Wy. T. S. O. 53, Dept. of the Platte, June 11, 1878.

WOOD, M. W., 1st Lieut. and Asst.-Surgeon. Assigned to duty at Fort McPherson, Neb. S. O. 53, C. S., Dept. of the Platte.

TAYLOR, M. E., 1st Lieut. and Asst.-Surgeon. To proceed to Santa Fé, and report to the Comdg. officer District of New Mexico, for assignment to duty. S. O. 105, Dept. of the Missouri, June 12, 1878.

THOMAS CARR JACKSON, F.R.C.S., formerly President of the Harveian Society, died in London on April 23d, at the age of fifty-five years. Mr. Jackson was an excellent surgeon, but he wrote very little. He was a born lithotomist, and was very successful in his operations, having cut twenty-eight patients without a death.

## Medical Items and News.

**CONTAGIOUS DISEASES.—WEEKLY STATEMENT.**—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 15, 1878.

| Week Ending        | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|--------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| June 8, 1878. .... | 0             | 12             | 81             | 1                          | 40       | 57          | 0          |
| " 15, 1878. ....   | 0             | 7              | 70             | 2                          | 37       | 35          | 0          |

**CALOMEL IN THE TREATMENT OF WORMS.**—Dr. Walker believes that calomel is the best worm remedy for children. He reports a case of profuse fluor albus in a three-year-old child, which resisted all remedies, but finally healed after the expulsion of a coil of small worms. The worms were expelled after a single dose of calomel, consisting of ten grains.

**ENURESIS OF CHILDREN.**—In the chronic enuresis of children from six to twelve years of age, due to hyperesthesia of the bladder, Dr. Vecchitti has employed chloral hydrate with excellent success. He administered it at bed-time, in doses of from nine to eleven grains.

**TREATMENT OF WHOOPING-COUGH.**—Dr. Orville, of Lille, has treated twenty-five cases of whooping-cough by the inhalation of carbolic acid from a wide-mouthed bottle. The bottle was held close to the mouth of the child as soon as the whistling inspiration of the attack began, so that the fumes of the acid were strongly inhaled. The results were satisfactory. (A carbolic spray would probably be better.)

**TREATMENT OF HICCOUGH.**—Dr. Favier reports a case of very obstinate hiccough that had lasted without interruption for fifty days, and was finally cured by compression of the epigastrium. The patient had been treated by blisters and sprinkling of the denuded cutis with morphia, by punctiform cauterization of the epigastrium with the hot iron, by injections of morphia, by ether, bromide of potassium, chloral, etc., all of which proved utterly useless. Finally, Dr. Favier determined to try the effect of forcible compression of the epigastrium by means of J. L. Petit's tourniquet. Five minutes after the instrument was applied the hiccough had ceased. It reappeared at first whenever the compression was suspended, but finally disappeared entirely. The Doctor adds, that as he had no electric apparatus he was unable to try the effect of faradization of the phrenic nerves.—*La France Médicale*, May 1st.

**DR. JAMES ELNATHAN STEEL.**—The late James Elnathan Steel, M.D., of this city, who died on May 28th, was born in Kidderminster, England, in 1828. His father, William Steel, was a Fellow of Oxford College, England, and his uncle, Richard H. H. Steel, of Birkensted, England, was a surgeon for upward of fifty years in the Royal Navy. His nephew graduated from the New York Medical College in 1861, where his "Thesis on Anatomical Preparations" took the first prize. He was afterwards appointed Demonstrator of Anatomy in the same college. At the beginning of the war he accepted a position as surgeon in

the volunteer corps, and was stationed at David's Island, Long Island Sound, where he won good opinions not only for his skill in operative surgery, but for his earnest and effective advocacy of conservative measures. He was afterward appointed surgeon in charge at Willett's Point, where he organized an army hospital. Afterward he was ordered to take charge and arrange an army hospital at Fair Oaks, near Troy. On returning to private practice he was appointed visiting physician to the Demilt Dispensary, which position he held for upward of seven years. He early became interested in scientific embalming, and commanded a large patronage in that line. For many years he was connected with the Masonic fraternity of New Rochelle and afterward of this city.

**AMERICAN LARYNGOLOGICAL ASSOCIATION.**—In response to a summons issued on May 10, 1878, a number of laryngologists from various parts of the United States came together at Buffalo on June 3d, for the purpose of forming an association for the advancement of the special department of medicine in which they were chiefly interested. Dr. F. H. Davis, of Chicago, acted as chairman, and Dr. Geo. M. Lefferts, of New York, as clerk. After the purpose of the meeting had been stated by these gentlemen a permanent organization was formed, and a constitution and by-laws were framed. In the afternoon the following officers were elected: President, Dr. Louis Elsberg, of New York; Vice-President, Dr. F. H. Davis, of Chicago; Secretary and Treasurer, Dr. George M. Lefferts, of New York; Council, Drs. Clinton Wagner, of New York, William C. Glasgow, St. Louis, E. L. Shurley, Detroit, J. H. Hartman, Baltimore. The first annual meeting will be held in New York on the second Tuesday in June, 1879.

**SIR JAMES COXE.**—The medical profession of Scotland has lost one of its ablest members in the person of Sir James Cox, M.D., Commissioner in Lunacy, who died recently at Folkestone, after a very short illness. He was on the way home from a tour on the continent, where he had been spending a short holiday. Sir James was born in 1811. In 1855 he was appointed one of the members of a Royal commission "to investigate the condition of lunatic asylums in Scotland," etc. He drew up the report of the commission, which was presented to Parliament in 1857, and led to the passing of an act establishing the General Board of Lunacy for Scotland, with Dr. Cox and Dr. Browne as Medical Commissioners. Since that time he has been a most diligent member of the board, and to him, in a great measure, are due its highly satisfactory working and valuable results. The honor of knighthood was conferred on him in 1863. He was President of the Medico-Psychological Association in 1872, when it met in Edinburgh.

**LOCAL TREATMENT OF THRUSH.**—A writer in the *Canada Lancet* reports excellent results from using the following lotion in connection with appropriate constitutional remedies:

R. Potass. chlor.,  
Sodæ sulphitis,  
Sodæ bibor., aa . . . . . ʒjss.  
Glycerinæ . . . . . ʒss.  
Aque, ad. . . . . ʒij.

**UNIVERSITY MEDICAL COLLEGE.**—Dr. L. A. Stimson, of this city, has been appointed Professor of Pathological Anatomy in the University Medical College; also one of the Curators to Bellevue Hospital.



# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE MONOPOLY OF PAPERS BY THE AMERICAN MEDICAL ASSOCIATION.

It would hardly be believed, even by the most credulous, that the American Medical Association has seen fit, in an authoritative way, to hinder the publication in medical journals of papers read at the meeting until such papers shall have appeared in the *Transactions*. This, however, is the fact, as will be seen by a reference to a proceeding at one of the meetings of the Sections. On the occasion alluded to it was moved that a paper which attracted a good deal of attention and treated of a subject in which every practitioner was more or less interested, should be published without delay in the medical journals. Naturally such a reasonable request would have been granted without debate; but when it was stated that such a course would spoil the sale of the *Transactions*, and was therefore contrary to the By-laws, there was apparently an end to all argument upon the question. The author of the paper not caring to go contrary to the wishes of the Association, abides by the decision, declines to have the article published, and the profession, or at least that small part of it which reads the *Transactions*, is compelled to wait for the information which it contains for many months. And yet we are told in the Code that it is wrong to wilfully withhold anything good from the profession, and that all personal considerations are secondary to the mitigation of human suffering and the prolongation of human life. It is also considered improper to claim proprietorship in anything calculated for the benefit of the sick, or to hinder, in any way, directly or indirectly, the widest and promptest dissemination of any knowledge which may tend to alleviate the sufferings of humanity. On the other hand, it is perhaps necessary, in view of the necessity of making the *Transactions* a success, to strain every point in its favor by forcing the members to subscribe.

But what becomes of the papers which are monopolized by the Association? Buried is a mild expression for the oblivion to which they are usually consigned. We do not mean to say that no one reads them, for this would obviously be an exaggeration. Besides the proof-reader, who is paid for it, the author himself very rarely fails to peruse his paper from beginning to end, and also possibly one out of a hundred to whom he sends his complimentary reprints. For the papers of real value in the *Transactions* there are comparatively few readers, because, aside from a very small edition, any interest which might have developed itself at the time the papers were read has passed away. Although this is one of the inevitable results of the publication of papers in volumes of Transactions, there is no reason why the Association should use its authority in preventing a proper disposal of such papers so that they may be available to the profession. The Association takes upon itself a grave responsibility in deciding the question in favor of the success of the *Transactions* against the real wants of the profession at large. When we look at this question from an author's point of view, the answer, as to the policy which should be pursued, is quite obvious. He, of course, is desirous of the widest publicity and quickest dissemination of his views. If, however, he loses this right for the mere honor of reading his paper before one or two hundred persons present at a meeting of a Section, and for the mere privilege of entombing his production in an edition of four or five hundred copies, he may not try the experiment as often as the mere success of the volume of *Transactions* may demand. We, however, take such a contrary view from that of the Association in this matter, that we have not hesitated to appropriate in our reports of the Association and of its Sections any and every item which in itself might interest the profession, and shall continue to do so despite any selfish and stupid by-laws to the contrary. The proceedings of the Association belong to the profession, and we see no good reason why their unlimited publication should be directly or indirectly hindered in the way we have shown. The profession has a direct interest in the repeal of the by-law in question.

## LEGAL REGULATIONS FOR THE PRACTICE OF MEDICINE.

### II.

THE Presidents, other officers, and Censors of the State and County Medical Societies are pledged to faithfully carry out all the laws of the State of New York, referring to the practice of medicine, which have been or may be entrusted to them. The first requisite for this is an efficient registration of all medical men and women.

The Health Board is required to make a registration of all competent and honorable physicians, surgeons, and midwives who send in certificates of births and deaths. The Comitæ Minore of the County Medical

Societies are expected to make lists of all honored and honorable, and duly graduated and licensed physicians, who are entitled to membership in their Societies, and the Presidents are required to invite all such eligible persons to join their respective Societies within sixty days. The Censors of the County Medical Societies are ordered to make a list of all unlicensed and unauthorized physicians, and summon them to obtain certificates of qualification to practise medicine, surgery, and midwifery.

The different city and business directories contain comparatively complete lists of all practising physicians and surgeons, and the editors of the *Medical Register* have done much and most faithful work in the way of registration. Hence it would seem unnecessary for the profession to apply to the Legislature for any new powers for registration until those which have already been granted have been faithfully and wisely tested, and carried out as far as practicable. The Censors of the Medical Society of the County of New York have twice notified all practitioners of medicine and surgery in the city and county to produce their credentials, but direct their Presidents to place a list of all those who did not comply with the Law of 1874 in the hands of the District Attorney for prosecution.

As several years have elapsed since the legal notifications were made, it may be desirable to issue new notices, and then proceed to prosecute the delinquents. As several judgments have already been obtained, the law officers are perhaps sufficiently cognizant of the requirements of the law to proceed promptly and effectively. With the aid of the directories, and the registers of the Board of Health, County Society, and Medico-Historical Society, this will be mere clerical work, for which the County Society should make a small appropriation, and order it carried out. To ease the Censors, who have already done much hard and not unfruitful work, the President should be directed to place the names of all who do not comply with the new notification in the hands of the District Attorney for prosecution.

Those who do apply for examination and certificates of qualification may be granted further time, not in any case to exceed ninety days; and then the names of all who fail to give satisfactory evidence of their moral character and medical acquirements should also be placed in the hands of the District Attorney for prosecution.

There are several medical associations which can materially aid the Censors of the Medical Society of the County of New York in their arduous labors. Thus the East River Medical Association can do much to sift out the worthy physicians of their district. The Medico-Chirurgical Society of German Physicians can do much more. The Harlem Medical Association may co-operate, and the North-Western Medical and Surgical Society, the Yorkville Medical Association, the

Morrisania Medical Society, and the Scientific Meeting of German Physicians.

A prerequisite for admission in all these Societies should be membership in the County Medical Society. The Academy of Medicine has applied for and obtained representation in the State Medical Society, and hence all its members and officers should also be members of the County Medical Societies. All the medical colleges have obtained representation in the State Medical Society, hence they should advise, and see to it, that all their graduates living in this State, especially in this city and county, should apply for and obtain membership in their County Medical Societies.

Strangely enough, the midwives are enrolled only by the Board of Health. They are not admitted into the *Medical Register*, although nurses and apothecaries are, and the Association for the Advancement of the Medical Education of Women have paid no attention to them, nor have the County Medical Societies, nor the New York Obstetrical Society, nor the Obstetric Section of the Academy of Medicine.

It is high time that some efficient steps should be taken in this matter; but as the subject is beset with some difficulties, the first step should be the formation of a society of well-educated midwives, already licensed by some other State or country. There are many well-educated midwives here, who have already been licensed in Germany, Italy, France, England, Ireland, and Scotland; and many more utterly unworthy persons from all these countries.

The worthy ones should unite, with the advice and assistance of a sufficient number of physicians of foreign birth already members of the County Society, and form a society of licensed, authorized, competent, and honorable midwives, whose credentials should be thoroughly examined, and whose character and ability should be vouched for by the Association for the Advancement of the Medical Education of Women, or the Scientific Meeting of German Physicians, the Medico-Chirurgical Society of German Physicians, or by committees formed of English, Scotch, Irish, French, and Italian physicians, members of the County Medical Society; or by committees from the New York Obstetrical Society, or the Obstetric Section of the Academy of Medicine.

On Jan. 26, 1829, the Medical Society of the City and County of New York drew up a petition, and sent a resolution to the State Medical Society about apothecaries (see below), which led to the establishment of Colleges of Pharmacy in the State, and how much more important is now the regulation of midwives. The resolution read:

*Resolved:* From the increasing number of vendors of medicines, called apothecaries, in the cities and populous towns in this State, the numerous and even fatal errors which have arisen from the ignorance of very many of them, and the necessity that demands some regulation in this adjunct department of the profession, that the delegate of this Society be in-



structed to use his influence with the State Society for the procurement of its active exertion in any measures which in its wisdom may be thought proper to remedy the evils arising from the present unlicensed preparing and dispensing of medical remedies.

*Resolved*, That the foregoing resolution be adopted as [part of] the instructions of the delegate to the State Medical Society.

Signed, STEPHEN BROWN, *Chairman*.  
JOHN STEARNS.  
JOHN JAMES GRAVES.

By Feb. 2, 1830, Dr. Richard Pennell, chairman, was enabled to report to the State Society: "That the apothecaries and druggists in the city of New York had organized themselves into a College of Pharmacy and adopted a constitution and by-laws. They had also appointed two professors, viz., Dr. Torrey, on Chemistry, and Dr. Stephen Brown, on Pharmacy and Materia Medica, with about one hundred students attending the former course, and about fifty the latter." A copy of their constitution was respectfully submitted first to the County Society, and next to the State Medical Society.

It should not be beneath the dignity of the New York Obstetrical Society, or of the Obstetric Section of the Academy of Medicine, or of a committee of the Medical Society of the County of New York, or of the Adjunct Professors of the Medical Colleges, or the Women's Medical College, or the Medico-Chirurgical Society of German Physicians, or all of them, to give instruction to, and examine all midwives.

A certificate of competency from individual physicians, however exalted they may be, should no longer entitle midwives to Registry even by the Board of Health.

The abuses about certificates for midwives have reached the extreme of endurance. Some physicians will give a recommendation to any and every midwife who calls them in counsel. Scoundrels who have served their term in the Penitentiary are now issuing such certificates; the makers of forged diplomas also issue forged certificates, and the holders of forged diplomas are doing the same. These men generally associate themselves in companies of three, pretend to give some instruction, and sell their certificates to midwives at from \$30 to \$100.

The County Society gave us the United States Pharmacopœia, the first system of Medical Ethics, the College of Pharmacy, and why not a well-regulated Society of midwives?

#### THE HOMŒOPATHIC QUESTION IN CONNECTICUT.

PROBABLY no question has excited as much interest in the Connecticut State Society as that referring to the propriety of consulting with homœopaths. It is not surprising that the members were unprepared to discuss it on its general merits, as the case in point was not by any means a leading one. It appears that one physician of the regular school was expelled from his County Society for consulting medically with his

wife, who was a homœopath, and the case came up before the State Society on an appeal. There is something so supremely ludicrous about the whole affair, that it is easy for us to believe that the discussion was looked upon by the majority of the members more as a joke than anything else. As it is, we are pleased to learn that the Society finally voted as it did.

#### THE NEW HAMPSHIRE STATE SOCIETY.

THE New Hampshire State Medical Society held its annual session at Concord, commencing June 18th. The admission of two medical women to membership is worthy of note, and very clearly proves in what direction the popular medical sentiment is drifting. The usual number of scientific papers was presented, and evoked considerable discussion. The advocacy of a State Board of Health is a step in the right direction, and will doubtless be rewarded with success at the next legislative session.

#### OUR REPORTS OF SOCIETIES.

IN order to complete our reports of the Sections, and to find room for reports of State Societies, we have concluded to alter our usual arrangement of material. In the future issues we shall resume the publication of the original lectures and other material, which for reasons already given have been deferred.

## Reports of Societies.

### AMERICAN MEDICAL ASSOCIATION.

#### REPORT OF SECTIONS.

#### SECTION ON PRACTICAL MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY.

DR. A. L. LOOMIS, of New York, Chairman.

DR. J. V. SHOEMAKER, of Pennsylvania, Secretary.

TUESDAY, JUNE 4TH—FIRST DAY.

The Section was called to order at 3 P.M. by the Chairman. In the absence of Dr. G. H. Etheridge, of Illinois, Dr. J. V. Shoemaker, of Pennsylvania, was elected Secretary.

#### RINGWORM IN PUBLIC INSTITUTIONS.

DR. J. V. SHOEMAKER, of Pennsylvania, read a paper upon the above subject, in which reference was made to 50 cases of the disease occurring in a school of 100 children. Diagnosis was made by microscopic examination. Inoculation upon unaffected children produced the same disease. Experiments were made by inoculating cats, and the disease was produced upon the animals. Further experiment demonstrated that the disease could be transmitted from animals to children by inoculation. The conclusion, therefore, was that ringworm could be transmitted from children to animals and *vice versa*. The treatment consisted in shaving the head [frequently in pulling out the hairs], frequent change of clothing, thorough ablution, the use of bitter tonics, iron, and cod-liver oil,

and the application of salicylic acid and citrine ointment.

Dr. S. S. CUTLER, of Cold Water, Mich., who had charge of the only State institution in this country for abandoned children, remarked that the occurrence of ringworm in serofulous and syphilitic children was very frequent.

Dr. W. W. AVERY, of Hartford, Conn., had employed Labarraque's solution with success in the treatment of this affection.

Dr. T. C. RICH, of Philadelphia, participated in the discussion, after which the paper was referred to the Committee on Publication.

#### SOME FACTS IN CONNECTION WITH PULMONARY TUBERCULOSIS AND ITS HYGIENIC SURROUNDINGS.

Dr. F. H. DAVIS, of Chicago, read a paper upon this subject, in which he maintained that the influence of climate in the production of tuberculosis was overrated. More powerful causes were want of exercise, improper clothing of the body, and dampness.

A change from agricultural to manufacturing pursuits was regarded as an important factor in the production of phthisis. As illustrative of that view reference was made to the Swedish and Norwegian emigrants, who usually came from agricultural districts, but when they arrived in this country many of them engaged in manufacturing pursuits, their children as domestics, and among them phthisis was of frequent occurrence. Preventive measures for phthisis consisted largely in the improvement of hygienic surroundings. The use of open fire-places and the abandonment of coal stoves was urged.

Dr. DENNISON, of Colorado, spoke of moisture as an element in the production of phthisis, especially moisture such as the inmates were exposed to in houses which were built upon soil more or less filled with water, as in many of our cities.

Dr. LESTER, of Kansas City, Mo., did not believe that moisture had any special influence in the development of phthisis, and cited as evidence the fact that in many localities consumption was unknown while the forests remained undisturbed, but as soon as they were cleared off phthisis had appeared.

Discussion was continued by Dr. N. S. Davis, West, of New Hampshire, Scott, of Ohio, Bronson, of Massachusetts, and Caldwell, of Baltimore.

The paper was then referred to the Committee on Publication.

#### FIBRINOUS BRONCHITIS.

Dr. C. W. GLASGOW, of St. Louis, presented a specimen of bronchial casts, with the history of the case.

Dr. LOOMIS referred to eight cases of the disease which had fallen under his observation. The danger in such cases was, that the disease might lead to phthisis. The only benefit which he had seen in way of treatment had been from change of climate; and a locality should be sought in which the atmosphere was free from germs.

The paper was referred back to the author, with the request that he make a full report upon the subject at the next meeting of the Association.

The Section then adjourned, to meet at 3 P.M., Wednesday, June 5th.

#### WEDNESDAY, JUNE 5TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman, Dr. LOOMIS.

The first paper was read by Dr. J. J. CALDWELL, of Baltimore, on

#### THE NEUROSES OF THE PNEUMOGASTRIC AND SYMPATHETIC.

The anatomical distribution of the pneumogastric nerve was first considered, and the effect produced by its division. The connection of the nerve with the sympathetic was so intimate, that when the sympathetic was irritated the same symptoms might be developed as when the pneumogastric itself was irritated. The author then passed to the consideration of the diseases affecting organs which were supplied by the pneumogastric, such as epilepsy, laryngismus stridulus, whooping-cough, croup, diphtheria, aneurism, etc. Mention was also made of certain neuralgias of the pneumogastric and sympathetic, and the views of the author were illustrated by cases. The object of the paper was to call attention to the neuralgias of the sympathetic and the pneumogastric, and also to study the vaso-motor centres, especially the sweat centres of the sympathetic. The use of electricity was referred to in the treatment of the various neuralgias mentioned.

#### METRIC SYSTEM IN MEDICINE.

Dr. EDWARD WIGGLESWORTH, of Massachusetts, read a paper upon the above subject, in which were set forth the principles of the system, and the advantages that would follow its adoption in medicine.

On motion made by Dr. N. S. Davis, the paper was referred back to the author, with the recommendation that it be published in some medical journal, including the statement that it had been read before that Section of the American Medical Association.

Dr. Davis then moved that the Section, by resolution, recommend the adoption of the metric system in medicine. Carried.

#### PRACTICAL POINTS IN THE ELECTRICAL TREATMENT OF IMPOTENCE AND SPERMATORRHOEA.

The above was the title of a paper read by Dr. G. M. BEARD, of New York.

The points in the paper were as follows:

1. That in the electrical treatment of *seminal emissions* mild currents should be used and short applications; strong currents and long applications were liable to produce irritation.

He preferred the ordinary steel sound as an electrode instead of the "urethral electrode."

2. In the electrical treatment of *impotence* a strong current might be used, faradic or galvanic, but usually the faradic was preferable. In cases of anaesthesia of the parts, the faradic current might be used with the wire brush.

3. Where the impotence or spermatorrhœa had produced general debility, central or general galvanization, either one, might be used in connection with local treatment. The galvanic current should not be used within the urethra, as it might produce too much chemical action.

4. The cooling catheter, the so-called Winternitz sound, was an excellent adjuvant and positive addition to our methods of treatment of these affections. It was an instrument so constructed that water could be poured into one end of a tube, and running the entire length of the sound, returned and was emptied at the other. He connected the catheter with a Potter's hydrostatic bag, and used water having a temperature of 40° or 50° F. The effect of the cooling application was to contract the urethra so that the instrument was removed with some difficulty. The applications could be continued from five to seven minutes. In some cases he connected a similar arrangement for the rectum. Instead of the hydrostatic bag an ordinary



Davidson's syringe might be used for injecting the water.

5. Dr. Beard spoke of Johnson's electric self-monitor. He was not able to say how much value the device possessed. Generally all those devices had been failures, and the fear was with reference to Johnson's apparatus that it would prove to be an irritant. In brief, the monitor consisted of an electric battery and connections so arranged that a shock was given when a ring was opened by the erected penis.

6. Treatment by the alternate use of hot and cold applications, such as flannels wrung out of hot and cold water, to the perineum and upon the back where the pain was located.

7. Internal treatment consisted in the use of gelsemium, bromide of camphor, ergotin, and lupulin. Gelsemium alone was of more value than was usually supposed. A pill made up somewhat as follows might be used:

|                             |         |
|-----------------------------|---------|
| R Gelsemium .....           | 1 gr.   |
| Bromide camphor.....        | 1½ grs. |
| Ergotin and lupulin aa..... | ½ gr.   |

He sometimes used bromide of zinc and valerianate of zinc combined, aa gr. i., given in the form of pill, and gradually increasing the dose.

8. Hygienic treatment. Dr. Beard thought that the absolute-rest treatment was sometimes carried too far in these cases, and that a little exercise might be beneficial.

9. Prognosis in spermatorrhœa was not so good as in impotence, although in the great majority of all the cases recovery took place.

Dr. Beard's paper was discussed at some length by Drs. Caldwell, of Baltimore, Rich, of Philadelphia, Hibbard, of Indiana, Palmer, of Michigan, Bronson, of Massachusetts, Shoemaker and Woodbury, of Philadelphia.

It was finally referred to a Sub-Committee, consisting of Drs. Palmer, Hibbard, and Bronson.

#### THURSDAY, JUNE 6TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman.

DR. THOMAS F. ROCHESTER, of Buffalo, gave the history of the case and presented a specimen illustrating

#### SEPARATION OF THE ILEUM AND SPONTANEOUS OCCLUSION OF THE DIVIDED EXTREMITIES.

DR. MARTIN, of Mass., referred to a case in which 19½ inches of the ileum separated and were discharged. Six months subsequently the pathological specimen was obtained, when it was found that the extremities of the gut, where the slough had occurred, had been united by a narrow band which was pervious.

DR. LOOMIS said that he had seen one case similar to that reported by Dr. Rochester, except that the extremities where the gut had sloughed were agglutinated to each other.

The paper was referred to the Committee on Publication.

DR. C. N. PALMER, of Lockport, N. Y., read a paper

#### ON GOITRE SUCCESSFULLY TREATED BY SUBCUTANEOUS INJECTION OF FLUID EXTRACT OF ERGOT.

The paper consisted substantially of the history of two cases of goitre, which had been successfully treated as above indicated. From ten to twenty minims of Squibb's fluid extract were used at each injection.

One of the patients cured was exhibited to the Section. He was twenty-five years of age; his neck measured twenty-five inches in circumference when treatment was commenced; the enlargement was double, one side cystic and the other solid.

Several methods of treatment were mentioned by members of the Section, and Dr. Davis remarked that no doubt some cases had been cured by any method which had been suggested.

On motion, Dr. Ephraim Cutter's paper on the "Morphological Changes in Syphilitic Blood" was referred to a special committee, consisting of Drs. Thomas F. Rochester, J. R. Bronson, and N. S. Davis.

On motion, the Committee of the Section, whose duty it was to report regarding the meteorological changes and the commencement of intestinal diseases, was continued.

#### THE CHAIRMAN'S ADDRESS.

On motion by Dr. N. S. Davis the chairman's address was taken up for discussion. Commendatory remarks were made by Drs. Davis, Rochester, Bronson, Bell, and Dennison.

On motion, the Chairman of the Section was requested to publish his address in some medical journal, in order that the profession might have opportunity for its study before it appeared in the volume of Transactions.

DR. N. S. DAVIS stated that it was in violation of the By-laws to give a paper to a medical journal for publication which had been referred to the Committee on Publication by the Section.

The Chairman said that he did not wish to have his paper to take any course which was not in accordance with the By-laws regulating the disposal of papers read before the Section.

The discussion terminated in sending the paper to the Committee on Publication, and also in the adoption of a resolution which was reported, and appears in the minutes for the fourth day of the General Association.

On motion made by Dr. N. S. Davis, Dr. Dennison was requested to report at the next meeting on the results of climatic treatment of phthisis in Colorado.

The Section then adjourned.

#### SECTION ON STATE MEDICINE AND PUBLIC HYGIENE.

DR. J. L. CABELL, of University of Virginia, Chairman.  
DR. I. N. QUINBY, of New Jersey, Secretary.

#### TUESDAY, JUNE 4TH—FIRST DAY.

The Section was called to order at 3 P.M. by the Chairman.

The first paper was read by DR. HENRY I. BOWDITCH, of Boston, entitled,

#### STUDIES OF AN EPIDEMIC OF DIPHThERIA WHICH PREVAILED AT FERRISBURG (ADJACENT TO VERGENNES), VERMONT, DURING THE SUMMER OF 1877.

Dr. Bowditch spent three days in the investigation, and entered all the houses of the district to which the epidemic was chiefly limited. A description of the locality, and the character and number of the homesteads was given, and the gradual progress of the disease traced upon the map. It was reported that the disease attacked principally, if not wholly, those who drank water from a certain well which had been long disused; but the perfect proof that such was not the source of the disease was the fact that several persons who drank of the water did not have diphtheria,

and that others who purposely avoided it, were, by another means of communication, affected, and some were killed. In conclusion, Dr. Bowditch enumerated the salient points of the epidemic, together with a few reflections that were germane to the subject.

1. We had seen the vastly greater tendency of childhood than of adult life to be affected; but

2. The fact that two nursing babes escaped in the epidemic, while many older children were affected, was worthy of notice.

3. Some houses, though surrounded by the epidemic, and their inmates went among the sick, escaped, but they had only adults in them. Would it have been safe or proper for those adults to have done so if any children had been living with them? He should decidedly say "nay," for

4. Adults in the epidemic had, at times, apparently carried the contagion without having it themselves.

5. If the epidemic did not *prove* the value of cleanliness in warding off diphtheria, it did not oppose that idea.

6. The experience of the epidemic seemed to indicate that physicians should consider the possibility of their communicating the disease in going from one patient to another. He confessed that he should think it his duty to take extra precautions in regard to going from a diphtheritic patient to any other sick person without thoroughly washing his hands, and, as far as possible, disinfecting his clothing by an exposure to the air, etc. Especial precautions should be used when going from a diphtheritic case to the puerperal chamber or that of any peculiarly sensitive patient or delicate child. Were diphtheria prevailing, and were he attending puerperal cases, he should visit all such patients before seeing the diphtheria cases, and in giving that counsel he only gave that which every one would admit was correct, in case one had erysipelatous and puerperal cases to attend on the same day. For, if in the latter hypothesis we should go directly from dressing an erysipelatous patient to a case of labor, we would be guilty of the grossest folly; Dr. Holmes would say, crime. We would deserve the severest condemnation, because we risked the life of our patient for the sake of our own convenience or for our fee, which was a most contemptible and reprehensible act, and one to be condemned by every honorable physician.

Future sanitary legal enactments would, he doubted not, justly hold a physician who should be guilty of such acts in the cases supposed of erysipelas and labor, amenable to statute law as much as if he administered poison or were guilty of the grossest malpractice.

7. On the occurrence of a case of diphtheria in a pupil attending school, the greatest care should be taken to prevent the disease from becoming epidemic. The patient should be forthwith separated from his fellows, or kept from them, not only during his illness, but for two or three weeks afterwards, and should not be allowed again to attend school until in full health, nor until all his clothing had been thoroughly disinfected. Those who had been in more immediate contact with him just before the disease appeared should be carefully examined, and the question of excluding them also from the school should be decided by a medical examination. If it was evident that several children were about to be affected, the school should be forthwith closed. As many of the children as possible should be removed out of the place and kept away for several weeks until the contaminated homesteads had been disinfected.

8. All clothing used by a diphtheritic patient should be subjected to intense heat, either of dry air

or of boiling water, and smaller rags or cloths used by such patients should be burned.

9. Each room in which a diphtheritic patient had been ill should be thoroughly ventilated during the illness of the patient, and afterwards continued for a time with thorough disinfectants.

10. Upon the death of a patient, the body should be as soon as possible placed in a box so constructed that no effluvia could escape. The funeral should be very soon after death, and attended by the fewest possible. The neighbors and friends and children of the family and all others should be excluded, except those needed to assist.

11. Finally, it was suggested by one of the attending physicians if the people of that small district had, early in the epidemic, established a temporary hospital, some lives might have been saved. A large hospital-tent upon one of the adjacent hill-tops, into which every one taken ill could have been immediately transferred, would perhaps have acted as the Botsford homestead apparently did, viz.: converted a widely prevalent and at times fatal disease into one milder, and, perchance, non-fatal. In the depths of winter-time perhaps one of these houses, or even a barn, might be fitted up for the same purpose.

The sum-total of these suggestions came to this result: An epidemic or a single case of diphtheria must be met very much as we would meet a case of small-pox or scarlatina, and we must try by every means in our power to limit its influence and prevent its spread as an epidemic. He did not mean to intimate that he thought diphtheria equally contagious as small-pox; but that there was a strong analogy between them, like means used to prevent their spread.

At the conclusion of his paper, Dr. Bowditch moved that it be referred to a committee of experts. Pending the vote on this motion, the paper was discussed by Dr. Jacobi and Dr. Bell, of New York, Dr. Hollister, of Chicago, Dr. Noyes, of Detroit, and Dr. Seguin, of New York.

Dr. Toner moved as an amendment to the motion of Dr. Bowditch, that the paper be referred to the Committee on Publication. Dr. Jones, of Toledo, in seconding the motion, took occasion to speak of contagion and infection, their causes, etc.

After further remarks by Dr. Jacobi, and Drs. Knight and Islam, of Connecticut, the vote was taken on the amendment of Dr. Toner, and it was carried.

#### INTERVENTION OF PHYSICIANS IN EDUCATION.

DR. E. SEGUIN, of New York, read a paper upon the above subject, in which the imperfection of our American public schools were pointed out, and reference made to the part which the physician should take in the education of the children as follows:

*During vacation* he should inspect the school-house and grounds with reference to cleanliness and drainage, and see that they were shaded on the proper side; that the books, charts, images, and the like were duplicated in several types to suit the different conditions of vision; that the desks fitted the progressive ages, and the seats the diversity of shape of the children, particularly of the girls.

*Before entering the school* the pupils should be scrupulously examined, and their status minutely recorded in regard to their general appearance; condition of skin and glands; relations of age to size; relations of size to weight; of trunk to limbs; conformation and proportions of head; irregularities of both sides; spinal anomalies (carefully surveyed); breadth and thickness of the chest; circulation; respiration, etc., etc.

Before having allotted a child to a class-room and



in it to one place in relation to the teacher and teaching apparatus, the precision of his sensory organs, and particularly wherefrom he could see and hear best, should be considered. Otherwise placed, his senses might grow worse; or the erectile tension of their organs, which caused the attention of the mind, being found useless would slacken, and the desire for learning would die away in proportion to the impairment of the senses.

Dr. Seguin then directed attention to the question of myopia and other eye affections, to quarantine measures against introducing contagious diseases into the school, to noting the effect of the course of studies upon the children, to the physiological training of the senses, and to the records of vital powers.

"The true riches of the country, without which all others are like chips in the mouth of the hungry, are our children, if physiologically educated."

Dr. Seguin's paper was endorsed by Dr. Bell, of Garden City, Dr. Jones, of Toledo, Dr. F. H. Hamilton, of New York, Dr. Noyes, of Detroit, Dr. Storer, of R. I.; and, on motion, Dr. Hamilton was requested to present an outline of the paper to the general session of the Association.

The Section then adjourned, to meet on Wednesday at 3 P.M.

#### WEDNESDAY, JUNE 5TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

The minutes of the previous meeting were read and approved.

#### CROUP AND DIPHTHERIA.

Discussion upon the contagiousness of croup and diphtheria was continued by Dr. A. Jacobi, of New York; Dr. Wilcox, of Hartford; Dr. Abbott, of Hamburgh; Dr. R. J. O'Sullivan, of New York; Dr. Reeves, of Wheeling; and others.

#### RESOLUTION BY DR. BELL.

DR. BELL, of New York, offered the following resolution, which was adopted:

"Resolved, That Dr. E. Seguin's paper on the Intervention of Physicians in Education be recommended for publication in the Transactions, and that Drs. F. H. Hamilton, E. Seguin, R. J. O'Sullivan, of New York; Dr. D. B. Lincoln, of Boston; Dr. W. H. Van Bibber, of Baltimore, be appointed a committee to report to the Association at its next meeting upon the practical suggestions of the said paper.

#### JOHNS HOPKINS HOSPITAL.

DR. J. S. BILLINGS, U.S.A., of Washington, exhibited the plans of the Johns Hopkins Hospital, to be erected in Baltimore, showing improved plans of ventilation and drainage.

DR. JONES, of Toledo, moved that Dr. Billings be requested to prepare a paper on the construction of hospitals, to be read at the next annual meeting of the Association. Carried.

On motion, the communications in reply to the circular of the Chairman of the Section, on Defective Drainage and Water Supply, by Drs. T. M. Stevens, of Indiana, John W. Trask, of Missouri, and A. M. Carrigan, of Arkansas, were referred to a committee consisting of the Chairman and Secretary of the Section.

The Section then adjourned to meet at 3 P.M. on Thursday.

#### THURSDAY, JUNE 7TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman.

DR. A. N. BELL, of New York, was elected Secretary.

The minutes of the previous meeting read and approved.

A letter from Dr. F. H. Hamilton, of New York, was read, declining, for want of time, to report at the next meeting of the Association on the subject discussed in Dr. Seguin's paper.

The address of the Chairman was taken up, discussed, and, on motion made by Dr. Bell, of New York, referred to the Committee on Publication.

#### THE BEARINGS OF HYGIENE ON THERAPEUTICS

was the title of a paper presented by Dr. J. R. BLACK, of Newark, Ohio, and read by the Chairman of the Section.

The writer concluded his paper as follows:

#### TREATMENT OF CHRONIC INTERMITTENT FEVER.

"A pathological therapist is very apt to treat a chronic intermittent thus: a mercurial cathartic to clean out the abdominal viscera, then quinine in large doses, and if this does not succeed, then in larger and yet larger, to destroy or neutralize the hypothetical malaria in the system. Cases have I seen by the score who had received such treatment for weeks and months unavailingly, who had taken quinine and iron until they were, as they expressed it, almost blind and deaf, and yet the disease persisted, with very brief cessations. As a hygienic therapist, and as one who has had a large experience with chronic intermittents, I unhesitatingly affirm of this latitude, that scarcely a case of intermittent fever need ever become chronic, and that even when so, proper management will hold the symptoms under control until the tendency is wholly overcome. The outline of the method is as follows: Inquire carefully into the history of the case, and whether acclimated or not, directing special attention to each of the abdominal organs, and if much deranged administer the best active corrective at once. Then anticipate the next paroxysm with 12 grains quinine, divided into three doses, beginning its administration eighteen hours before the time of the expected chill. Repeat this amount of quinine every seventh day for four consecutive weeks, but at no other time, except when the patient's indiscretion brings on an irregular paroxysm. During the intervals administer daily gentle remedies appropriate to correct the functions that show the most derangement. These remedies should be such as will keep the organs mainly at fault up as near as possible to the standard of healthy action, and no more, never allowing the secretions or excretions of any organ to sink far below the healthy standard, nor causing them to rise much above it. The diet should be strictly hygienic, and so also of the exercise, not permitting the vital energy to be spent in toil that should be devoted to recuperation. To guard against external variations of temperature, especially in the unacclimated, flannel should be worn next the skin. The grand condition of success lies in the method and means for keeping all the abdominal organs, during every day and for several weeks, up to the standard of healthy action, and thus triumphantly raise the health above the ague-point. Quinine is invaluable for the arrest of periodicity, but nothing more. By these means my success in treatment has been immediate, and invariable even in

those cases in which improper management had led to serious derangement of the liver, with enormously enlarged spleen. An attempt to trace the course of thought that led these to therapeutical modifications leads back to the careful study of etiology and hygiene, and it is to these that I must attribute the many changes that I have been induced to make in the management of nearly all chronic diseases—changes that I have abundant evidence to consider, constitute a most important advance over old-time methods."

The paper was referred to the Committee on Publication.

The resignation of Dr. Hamilton, as Chairman of the Committee on Dr. Seguin's paper, was accepted, and Dr. R. J. O'Sullivan, of New York, appointed to fill the vacancy.

The Section then adjourned.

#### SECTION ON MEDICAL JURISPRUDENCE, CHEMISTRY, AND PSYCHOLOGY.

DR. WALTER KEMPSTER, of Oshkosh, Wis., Chairman.  
DR. WM. COMPTON, of Holly Springs, Miss., Secretary.

WEDNESDAY, JUNE 5TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

The Chairman, Dr. Kempster, read a paper on

##### GENERAL PARESIS OF THE INSANE.

It was discussed by Dr. Compton, Dr. Clarke, of Toronto, Dr. Russell, of Mass., and Drs. Gray and Deecke, of Utica, N. Y. Dr. Compton remarked that he had never seen a case of paresis in the negro insane.

The paper was referred to a Sub-Committee, consisting of Dr. Darrin, of Penn., Dr. Compton, of Miss., and Dr. Hildreth, of W. Virginia.

The Section then adjourned, to meet at 3 P.M. on Thursday.

THURSDAY, JUNE 6TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman.

##### THE USE OF THE MICROSCOPE IN THE STUDY OF DISEASES OF THE BRAIN.

DR. THEODORE DEECKE, of Utica, N. Y., read a paper on the above subject, and illustrated it by means of micro-photographs, prepared by himself and Dr. Gray.

DR. KNIGHT, of Connecticut, offered a few remarks upon the same subject.

The paper was referred to the Sub-Committee, and on motion by Dr. Compton the Section adjourned.

#### NEW HAMPSHIRE STATE MEDICAL SOCIETY.

*Eighty-eighth Annual Meeting.*

DR. L. M. KNIGHT, of FRANKLIN, N. H., PRESIDENT,  
IN THE CHAIR.

(Special report for THE MEDICAL RECORD.)

TUESDAY, JUNE 18TH—FIRST DAY.

THE eighty-eighth annual meeting of the New Hampshire Medical Society was held in Rumford Hall, Concord, on Tuesday, June 18th, at 11 A.M. The attendance was large. The President, Dr. L. M. Knight, of Franklin, occupied the chair.

Prayer was offered by Rev. Daniel C. Roberts, of

St. Paul's Church; and thereafter the customary committees for immediate temporary purposes were appointed.

##### FEMALE MEMBERSHIP.

The report of the Council concerning applicants for admission to membership was read by the Secretary, and the names of thirty-one were balloted for, all of whom were admitted. Among them were two ladies, Drs. Mary Danforth, of Manchester, and Julia E. Wallace, of Concord. These are the first lady physicians ever admitted members of the Society. Two members were retired on account of age and of removal.

##### REPORTS OF DELEGATES.

The Committee on Credentials, etc., reported that the Connecticut River Valley Medical Association was represented by Dr. L. Sawyer, of Springfield, Vermont; the Vermont Medical Society, by Dr. D. F. Rugg, of Hartland, Vermont; the Massachusetts Medical Society, by Drs. Ira Russell, of Winchendon, Edward Wigglesworth, of Boston, and John H. Mackie, of New Bedford; and the New York Medical Society, by Dr. L. D. Bulkley, of New York. These gentlemen were invited to share in the Society's deliberations, and to participate in its hospitalities.

The Secretary, Dr. CONN, made a report on the Collocation of the Early Records of the Society, which duty was unfinished; and Drs. Hill, of Dover, Crosby, of Concord, and Frost, of Hanover, were appointed to complete the work begun by Dr. Smith, and report to the Council at next annual meeting.

##### STATE BOARD OF HEALTH.

The Secretary also made a report concerning the efforts made by the Society to induce the State Legislature to establish a State Board of Health, which had failed, the while vastly inferior popular interests had succeeded. The report urged that nothing could be accomplished, unless through persistently knocking at the door of the Legislature, and the members be made to seriously listen to the just demands of enlightened humanity. The Society resolved to continue its efforts for the establishment of a State Board of Health, and Drs. Stackpole, Crosby, and Russell were appointed a Special Committee to take charge of the matter.

PRESIDENT KNIGHT then delivered the annual address, after which the meeting adjourned to Odd Fellows' Hall, in order to enjoy their annual dinner. Dr. L. B. How, of Manchester, presided, and the season of physical and mental enjoyment was a happy one.

At 3 in the afternoon the Society reassembled, and the following papers were read:

DR. T. J. W. PRAY, of Dover:—"The Modern Use of Stimulants in Disease; Has there been a Change in the Type of Disease?"

[In the discussion which was invited it was held, substantially, that while there was just attachment to old methods of treating typhoid disease, the change of circumstances of a large portion of the people—their aggregation in large cities and towns, where confined dwelling places and vitiated air predominated—had changed the types of the disease, and had sanctioned the use of newer remedies—among them stimuli—which had thirty years ago been largely excluded in practice. There seemed a general favor towards feeding in cases of typhoid fever.]

##### MANAGEMENT OF THE INSANE.

By common request DR. KINGSBURY, of Lyme, was



solicited to provide a paper, to be read at next meeting, "On the Use of Stimulants in Cases of Typhoid Fever."

2. By DR. E. E. GRAVES, of Boscawen (per Dr. G. P. Conn, of Concord), a paper "On some of the Risks and Responsibilities connected with the Practice of Medicine and Surgery."

3. By DR. J. P. BANCROFT, of Concord, "Concerning the Pauper Insane in New Hampshire." This paper urged the more extended study of mental diseases by the profession; the special claims the afflicted had on professional and State guardianship; the impolicy of allowing the insane paupers to be treated in common with the sane paupers—a peculiarity of New Hampshire alone.

[On motion of PROF. FROST, of Dartmouth, the Secretary was instructed to lay Dr. Bancroft's paper before the Legislature as the sentiment of the Society on its subject, and Dr. Stillings, of Concord, was appointed his coadjutor.]

4. DR. WILLIAM CHILD, of Bath, read a paper "On Surgery: Its Social Relations and its Status as a Science and an Art." He held that the position of a surgeon was a high and influential one, and its keynote fidelity to duty; but demands were made which invaded all just sense of his responsibility. One was that which compelled him, in testifying before courts of law, to disclose professional secrets, from which compulsion priests and lawyers were excluded. A change of law in this respect was strongly urged.

5. By DR. G. M. GARLAND, of Boston: "On Thoracentesis."

The evening session of Tuesday was devoted to the reading of obituary notices, five members of the body having died during the past year.

DR. A. H. CROSBY, of Concord, made a brief report on the subject in hand, and proceeded to read a sketch of the late Dr. John E. Tyler, some time in charge of the New Hampshire Asylum for the Insane. It credited him with sound ability in the treatment of mental disease, and related his extended experience, and the fame he had attained in his speciality.

DR. PARSONS, of Portsmouth, next read a notice of Prof. A. B. Crosby, written by Dr. J. W. Barstow, of Flushing, L. I. This paper was intimately biographical.

DR. A. H. CROSBY next read a notice of the late Dr. George E. Hersey, of Manchester.

DR. HANKS, of New York, then read an obituary of the late Prof. E. R. Peaslee, of Dartmouth.

DR. WIGHT, of Gilmanton, read a well-written paper respecting the character and attainments of the late Dr. Isaac S. French, of London.

An obituary of Prof. Albert Smith, of Peterborough, by PROF. FIELD, of Dartmouth, was read by its title, and all the obituaries were referred to the Publication Committee.

#### WEDNESDAY, JUNE 19TH—SECOND DAY.

At the opening of Wednesday morning's session DR. D. S. ADAMS, of Manchester, read a paper "On Carcinoma: Its Histology and Etiology."

DR. BULKLEY, of New York, gave an illustrative lecture on the application of rubber bandaging for the cure of ulcerated limbs, and of old ulcers.

The following officers were elected for the ensuing year:

*President*, Dr. A. F. Carr, of Goffstown; *Vice-President*, Dr. T. J. W. Pray, of Dover; *Secretary*, Dr. G. P. Conn, of Concord; *Assistant Secretary*, Dr. Carter, of Concord; *Treasurer*, Dr. L. B. How, of Manchester.

The reports of District Societies were severally read

by their titles and referred to the Publication Committee.

It was voted to hold the next meeting of the Society at Concord, on the third Tuesday in June, 1879.

A resolution was unanimously passed urging it on legislature, municipal and town officers, to provide every necessary, legal, and local measures to prevent danger and death caused by *rabies canina*.

DR. HULL gave a description, from a specimen, of the various uses and great value of Trussell's Universal Adjustable Splints.

The Isles of Shoals was selected as the place where the semi-annual meeting of the Society should take place.

The unanimous thanks of the Society were tendered to the past President for the able and impartial manner in which he had discharged his duties; also to Dr. Wheat, the retiring Treasurer; and thereafter the Society finally adjourned.

### CONNECTICUT MEDICAL SOCIETY.

*Eighty-seventh Annual Meeting, May 22d and 23d.*

DR. R. HUBBARD, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

FIRST DAY—MAY 22D.

THE Eighty-seventh Annual Convention was held in New Haven, May 22d and 23d, and was an unusually interesting and well-attended meeting. The eight County Societies which together compose the State Society were all well represented by their delegates in the business session, and the profession generally in the State. On the second day Drs. R. F. Weir, from New York, J. H. Bronson, from Massachusetts, and E. M. Moore, from Maine, were present as delegates, and in brief speeches presented the greetings of their respective Societies.

In accordance with custom, the President briefly addressed the Convention, calling to their attention the principal matters of business to come before them, reviewing the history of the year and the status of the profession.

#### ADDRESS OF PRESIDENT.

"To-day, legitimate medicine may be said to be without an important rival; the rapid succession of discoveries relating directly or indirectly to our profession have destroyed the foundations of all opposing systems, and it only remains for us to await popular comprehension of the fact that what seems to be opposition is but a distinction without a difference. The necessity thus imposed upon us for broad culture and high attainment in entering upon a theatre of labor thus extended might well discourage the most zealous and persevering, and necessitates the distribution of the field into the various specialties for a thorough mastery of particular branches, as well as for rapid general progress in all. The burdensome and increasing duties of our professional life should incite us to renewed efforts to promote the efficiency of our organizations and in diffusing knowledge among the people. In the establishment of a State Board of Health, a new field is opened for our efforts; and let us hope that the same determined spirit that persisted through many years of discouraging labor will manifest itself in ways and means to promote its efficiency."

After the usual routine business of organization, several amendments to the By-laws were acted upon, regulating representation, and authorizing the Secretary to fill vacancies in the delegates to any Society.

The following new By-law was offered, passed as a resolution, and lies over a year by rule:

#### DOGMATISTS AND MEDICAL TRAMPS.

*Resolved*, That any County Society may examine, discipline or expel any member notoriously in the practice of allopathy, homeopathy, hydropathy, or according to any exclusive system or dogma."

Dr. S. G. HUBBARD, of New Haven, introduced a memorial from that city concerning medical tramps and the laws relating to the profession in the State. It was referred to a committee to report at the evening session.

#### THE POWER OF GRANTING LICENSES.

The subject of granting licenses, the power to license being still possessed by the Society, in the case of those not possessed of the qualifications for a degree, was warmly discussed. There is a strong sentiment in the profession in this State in favor of a better standard of medical education, and in view of the comparative ease of securing a diploma, the power of licensing is entirely unnecessary and uncalled for, and its exercise anything but honorable to the profession. Indeed, it has not been exercised for many years, and was generally supposed to be obsolete, to be retained for some possible emergency that might arise.

The degrees are granted here by a conjoint committee composed of the Professors of the Yale Medical School and as many from the State Society, and the power to license belongs to the committee from the Society. The Medical School at Yale has advanced as far in efforts to elevate the standard of medical education as charter limitations will allow, and the discussion of the subject resulted in the passage of the following resolution, which will probably eventuate in measures to either abolish the power of licensing, or render the qualifications the same as for a degree, and enable the Medical School to advance the standard of medical education unhampered by the present charter regulations:

*Resolved*, That the Connecticut Medical Society be requested to appoint a committee of three to confer with a similar committee, representing the Medical College, to consider the propriety of making some changes in the Medical Institution of Yale College, with authority to co-operate with said committee in securing from the Legislature such alterations as may be mutually agreed upon."

The President appointed the following committee: Drs. C. W. Chamberlain, S. H. Wood, H. P. Stearns.

The Committee on Nominations made their report, and the following officers were elected:

C. M. Carleton, M.D., *President*; A. R. Goodrich, M.D., *Vice-President*; F. D. Edgerton, M.D., *Treasurer*; C. W. Chamberlain, M.D., *Secretary*.

The Treasurer's report was presented, showing an increase of \$140 over the balance of last year, and presenting an encouraging prospect for the future. In three of the counties there is now no indebtedness or arrearages—Middlesex, Hartford, Tolland—and in three others but slight, and less than usual in the others.

The Society reassembled at eight p.m., Dr. C. M. Carleton in the chair, in the absence of Dr. R. Hubbard, the President.

The Committee on the New Haven Memorial presented a report in favor of efforts by this Society to secure an act to regulate the practice of medicine, and to keep medical tramps from this State. After considerable discussion a committee of one from each

county was appointed to report a bill to the next Convention, and to the County Societies.

#### CONSULTING WITH A HOMOEOPATH.

A case of discipline, which had at the commencement of the afternoon session been referred to a committee, was then considered, two reports being presented. The case had previously been considered in the Fairfield County Society, and the doctor expelled from the Society, but the sentence required the sanction of the State Society. The charge was that of consultation with a homoeopathic practitioner, said practitioner the wife of the defendant. The majority reported the charges not proven, and, as the *prima facie* evidence would not warrant acquittal, referred the matter back to the County Society, which had not been unanimous in its action. The minority report sustained the action of the County Society.

After a protracted debate, lasting until midnight, the majority report was accepted.

#### THURSDAY, MAY 23D—SECOND DAY.

The Society was called to order at nine a.m., Dr. R. Hubbard in the President's chair. Dr. C. W. Chamberlain at the Secretary's desk. The report of the Secretary was presented, as follows: "Sixteen members of the Society have died since our last meeting, a very large mortality, but the average age, 64, exceeds that of the general average in the profession, which is about 58. The oldest was 87, and several over 70; the youngest 29. There were 31 new members added, and after subtracting the removals a net gain of 11. The Society now numbers 395."

The annual address of the President treated of the relations of the regular profession to the public, and presented an outline of the various "isms" that opposed the progress of regular medicine, and of the benefits conferred upon humanity by the discoveries and improvements in scientific medicine.

#### THE MANAGEMENT OF THE INSANE.

The dissertation by Dr. A. M. SNEW, of Middletown, presented the relations of insanity to law, discussing the tests for insanity, especially the knowledge of right and wrong, which was condemned as an unreliable, insufficient test, the treatment of the insane, and the pleas of insanity as a bar to legal procedures. It was a very able and scholarly paper, evidently the result of much thought and study.

#### MATTERS OF PROFESSIONAL INTEREST.

The report of the Committee on Matters of Professional Interest was read by the Chairman, Dr. Wainwright. The questions sent out this year involved the etiology of the zymotic diseases, especially typhoid fever and diphtheria. There are, judging from the replies, two theories held concerning the origin of zymotics here as elsewhere:

1. The theory of a specific poison, whether bacterial or chemical.
2. The sporadic origin, from unsanitary conditions, without infection from preceding cases.

Among the rural practitioners the view of sporadic origin is numerically stronger, and seems to be in accord with experience.

There has been no widespread epidemic locally. Diphtheria has prevailed extensively, causing 590 deaths in the State. The question of vaccination is also discussed. The bovine virus is used generally, with satisfaction as to results and protection. Occasionally severe results, like erysipelas, have followed.



but rarely. The percentage of successful vaccinations is encouraging, and, in fact, the people have become educated up to the point of demanding the bovine virus.

Several interesting essays were read by appointment. Dr. L. S. Paddock read an essay on Puerperal Convulsions; Dr. Swasey, on Uterine Hemorrhage; Dr. S. H. Chapman, on Therapeutics of Throat and Ear Disease.

A very instructive demonstration of the methods of antiseptic surgery was given by Dr. G. P. Davis, followed by Drs. Bronson and Weir, who gave the results of the use of the method in Boston and New York.

#### STATE BOARD OF HEALTH.

The report of the Committee on State Board of Health reported, through Dr. Lindsley, the success of their efforts. The committee acted in concert with one from the American Medical Association, and by persistent effort a satisfactory bill was passed. The care of the vital statistics is given to the Board, and ample powers for sanitary inspection and work. The following appointments were made by the Governor:

J. S. Butler, M.D.; C. A. Lindsley, M.D.; R. Hubbard, M.D.; A. E. Burr, Prof. Wm. H. Brewer, A. C. Lippitt.

There is one lawyer, one editor, and a Professor from Sheffield Scientific School; the others physicians.

Voluntary communications occupied the remainder of the session:

Thoracentesis in Empyema; Four Cases, with Recovery—Jas. E. Barbour, M.D.

Hemiplegia Alternans—W. C. Burke, M.D.

Stammering the Result of Railroad Injury—P. A. Jewett, M.D.; and others, principally reports of unusual cases.

The annual dinner was served at the New Haven House, and was, as usual, a very enjoyable affair, giving the opportunity for relaxation and recreation after a somewhat exciting and laborious session.

#### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, April 24, 1878.*

DR. J. C. PETERS, PRESIDENT, IN THE CHAIR.

##### OBSCURE CASE OF CANCER OF THE LIVER.

DR. BLUMENTHAL presented a specimen taken from a lady aged sixty-six years, the mother of six children. Ten or twelve weeks ago she consulted Dr. B. for undefined pains along the lower part of the bowels, which she attributed to constipation. Slight purgatives were accordingly administered. An external examination failed to give any evidence of special trouble. No relief having been obtained, a rectal examination was made with the result of finding a large accumulation of fecal matter in the neighborhood of the sigmoid flexure. All that could be found by careful external manipulation associated with this condition was a sense of fulness over the left inguinal region. After the bowel had been thoroughly cleansed by enemata, another rectal examination revealed the existence of a hardened growth three and one-half inches from the anus. The diagnosis made was that of cancer of the rectum. She was very comfortable from that time for about three or four weeks, when she was examined again; this time with the result of finding a hard tumor on the right side, occupying the position of the ileo-cæcal portion of the intestines, and extending to the median line and upward toward

the region of the liver. It could be pressed with considerable force without exciting pain. Of course its connection with the hard body in the intestine was suspected. She was seen in consultation about this time by a medical gentleman of this city who diagnosed accumulated feces and recommended appropriate treatment therefor, which, as was anticipated, was not successful. It was subsequently determined that he should make a more thorough examination of the bowel, when it was ascertained that a stricture existed just above the hard tumor, and through which stricture it was almost impossible to introduce the tip of the finger. In the meantime the patient became very much demoralized, lost her appetite, and soon died.

At the autopsy the organ most prominently affected was the liver, which was very much enlarged and filled with cancerous material. It was the right extremity of this liver which was mistaken for fecal impaction, but was not traced to the organ because the transverse colon which passed over it was much distended with gas. That fecal accumulation was suspected to be the cause of the tumor rested in the mind of the gentleman who made such a diagnosis, upon the fact that pressure over the growth with his finger produced distinct depressions. The descending colon was at one or two points alternately enlarged and contracted, while a marked stricture was found in the rectum due to the encroachment of the tumor already mentioned. The uterus, ovaries, and bladder were involved in the disease. There was no hereditary disease in the family as far as could be ascertained. Up to within a short time of her death the disease of the liver was not recognized.

DR. LOOMIS remarked that the natural history of cancer of the liver would explain the latter statement, inasmuch as scarcely two months are sufficient to develop the disease. He mentioned one case in which only four weeks was sufficient to bring about such a result.

DR. JOHN C. PETERS presented a résumé of the cases of tumors of the cerebrum which had been presented to the Society since its organization in 1844.

##### TUMOR OF LUNG AND MEDIASTINUM.

DR. JANEWAY presented a tumor of the lung and mediastinum removed from a woman aged forty-seven years, who entered Bellevue Hospital the latter part of February. Seven years before she had pneumonia of left lung, from which she recovered. At the time of her admission she had a muco-purulent sputa, from which she had been suffering for two months. She suffered from dyspnea with slight pulsation, visible to the eye, over and to the left of sternum. There was also marked dulness or flatness over the left of sternum and left upper lobe. In addition there was bronchial breathing, whose characteristic was an element of distance, such as is obtained in pleurisy with effusion. There was a little turgescence at the base of the left lung. During the two weeks succeeding her admission she had occasional attacks of dyspnea; pulse 100-110, temperature 100-102½° F. The physical signs remained about the same. There was an increase of half an inch in the transverse diameter of the left compared with that of the right. The diagnosis was in all probability a tumor of the mediastinum.

Glandular enlargements appeared at the root of the neck on either side, with edema of the face and upper extremities, most marked in right. Edema was also present in the lower extremities, but much less marked. During the last three weeks evidences of obstruction in the left lower bronchus appeared, which at first was thought to be due to the accumulation in the

pleura of that side. The heart was displaced to the right. The left chest was aspirated and ten ounces of fluid withdrawn, and a few days before death a second aspiration withdrew about six ounces of thick tenacious pus. Death was the result of exhaustion.

At the autopsy there was found at the roots of the lungs on both sides enlarged lymphatic glands. A large mass existed in the anterior, and also in the posterior mediastinum. The aorta was pushed to the right and stenosed to the diameter of the little finger. The left vena innominata was also markedly stenosed by the growth around it. The growth also permeated the lung structure surrounding the vessels and bronchi. The pericardial surface was agglutinated to the lung. The trachea and left bronchus were partially occluded by the growth. The œsophagus was displaced, but not occluded to any extent. The tumor was of the nature of lympho-sarcoma.

In answer to a question concerning abnormal heart sounds, Dr. J. replied in the negative.

A point of interest in the growth was the existence of cheesy degeneration, a condition which Virchow maintains does not exist in connection with lympho-sarcoma.

The Society then went into Executive Session.

## Correspondence.

### SARATOGA AS A REMEDIAL WATERING-PLACE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I desire through the columns of your valuable journal to call the attention of the medical profession to abuses in the use of Saratoga waters, as well as to their medical capabilities. I have been encouraged to write my views by the interest taken in the subject by many of the leading physicians of New York City and vicinity, whom I had recently the pleasure of meeting. Their cordial sympathy with the sentiments expressed and hearty indorsement of the same were mostly based on their own experience and observation, while at Saratoga, of the indiscreet use of the mineral waters by the visitors.

I think there should be a time in a physician's professional life when he might be allowed to express his views without being charged with self-interest. After a practice at Saratoga Springs of more than thirty years—having attained a stand-point so far on the road—I feel assured that a few words of a life's experience may be honestly expressed, and trust that the charge of professional ambition will be kindly withheld.

It has been apparent to me, as to others, for several years past, that Saratoga has not sustained its deserved reputation as a remedial watering-place.

The constantly increasing accommodations made here for our guests have been responded to by the country at large, until we have now some seventy-five thousand visitors annually. Among these visitors we have many invalids who seek Saratoga for the improvement or restoration of their health. Some come from sick-beds, under the advice of their physicians; others, after long years of declining health, having sought in vain by travel and change of climate for its restoration, come here as a "dernier ressort," to drink our mineral waters; others, again, suffering from the constant pursuit of business, and from over-labor, with every form and grade of

dyspepsia, and nearly all the diseases "flesh is heir to," seek here the recuperative effect of our climate and mineral waters. Theirs, being mostly functional derangements, do not respond healthfully to active treatment, or to large doses, except in rare cases, but are surely benefited by alterative and judicious quantities.

With truth, this place may be called nature's great hospital. Here are the waiting wards, clean, airy, and elegant; air that is pure and vitalizing, coming down from the Adirondack Mountains, to be warmed and rendered still more salubrious by the surrounding plains; shaded walks and quiet parks, with the life-giving fountains. Surely, nothing more is wanting but the responsible care of wise and skilful advisers, to adapt and direct the use of the different remedial agents, as contained in our springs, for the best interests of the invalids and seekers after health, who are really the patients in this great hospital. Diseases of the class usually found here carry with them greater anxiety to the patients, as well as to the physician, than any others. They are really the most difficult to treat successfully.

The mineral springs of Europe are mostly under the charge and surveillance of government. Competent physicians are officially appointed to counsel and direct those seeking to regain health by the use of the waters. Patients are carefully advised, after a thorough examination of their condition and the character of their disease, and never think of assuming the responsibility of drinking or using the waters without such advice. To do so would be at the risk of losing the opportunity of regaining their health, after a long and expensive journey. They could not afford to take such a risk, even if they had free access to the springs. Such a course would be "penny wise and pound foolish" in the extreme.

All must admit the responsible nature of the diseases met with here, the necessity of great care and discretion in their treatment, and the fact that such treatment requires a qualifying experience. No one can doubt that this is a medical trust; and that the physician must first become acquainted with the nature and character of the diseased functions, be they slight or severe, before he can properly direct a remedy. Here lies the trouble. The drinker does not take judicious counsel.

Physicians sending their patients here have usually not felt sufficient responsibility in the matter of drinking, and have only, in a very general way, advised their patients with regard to the use of our waters. Having only a limited knowledge of the efficacy of these waters, they cannot, of course, give specific directions. Some, however, who better understand the desirability of adapting the use of the waters to the various symptoms and wants of their patients, send, in each case, a statement of the condition of the patient to some local physician, and the invalid is thus consigned understandingly to professional care and discretion. But very many invalid visitors, equally needing intelligent professional advice, are yet not under the immediate care of any physician.

Another large class, not really invalids, are those who run away from home and its business cares for a stay of two or three weeks, and hope to receive benefit by using the waters. They drink indiscriminately and often injuriously. Some go to one spring and some to another, and many drink impartially from all the springs they chance to pass in the course of a morning or evening walk. Some take very large quantities, some smaller, but drink at any hour or at all hours, before or after eating, when flushed by ex-



ercise or cooled and calmed by repose, and without any intelligent or sufficient appreciation of the medicinal character and effects of the waters they are thus trifling with. If they seek advice, they ask it of the hotel porters, or the waiters, or the boarding-house keepers, or boarders in the house where they chance to be. Other visitors are consulted in the street, at the springs, and at the post-office. Hall boys and hack drivers give their advice, and are considered experts, having a rare experience with regard to quantities, claiming that thirty or forty glasses are daily taken by some of the visitors. There is absolutely no end to the absurd and ridiculous ways visitors take to get advice about the use of the waters.

Invalids need to be informed which water to drink, and how much, and at what hours; what effect they need to secure, how to obtain it, and when they have secured it. Here are twenty different springs, no two are alike in their effects, several of them are cathartic, quite a number are diuretic and tonic, and others are powerfully alterative without much cathartic effect.

Patients are told by their physicians at home to leave their business and its cares, to travel, to go to Saratoga and drink the waters for two or three weeks. They come here, and, in many instances, drink as I have stated; and among so many different springs, widely dissimilar in their medical character and effects, do not hesitate to select for themselves. In many instances of this class difficulties arise, and visitors find themselves obliged to call upon some physician for advice which they ought to have sought before drinking the water at all.

Nearly one-third of those seeking advice do so after a week or two of lost time. This is expensive. The visitor is near the end of his short stay, and is no better, and for a few days has been worse. He has not done justice to himself, to Saratoga, or to the physician. These results are unnecessary, and are falsely charged to the waters. Some of these visitors consult with physicians, who, being themselves visitors, have no particular knowledge of the use of the waters, and are too apt to meet every difficulty by ordering a discontinuance of the waters. No use is better than bad use of our waters, I admit; but these ill-advised patients are disappointed and dissatisfied, and do not carry away a correct impression of the remedial powers of our springs.

These are every-day occurrences, and this injudicious use by the visitors, particularly of our cruder waters, is sure to produce unpleasant results. In a conversation with the Rev. Theodore L. Cuyler, on this subject, he said: "I am astounded every day while at Saratoga to witness the reckless manner of drinking the water by visitors. I see them at every spring, pouring it down, with no apparent object in view but to improve every opportunity to drink."

Without doubt this imprudent and excessive use of our mineral waters is the cause of the growing disrepute of Saratoga as a remedial watering-place.

It is a fact worth repeating that our so-called tonic waters, while extremely valuable in some cases, are not generally beneficial. They cannot always be safely prescribed, even where a tonic is indicated; and, as usually taken by visitors at the springs, do very little good and a great deal of harm. The effect of the iron waters is not as a tonic to many who use them. Many find a better tonic in our alterative waters. Most invalids think they need tonics to give strength, when they really need some effect to restore functional derangements of the stomach, liver, or kidneys; and then a good appetite and refreshing sleep will tone up the system and give strength and vigor.

Of course our iron waters are sometimes used with marked success, as in cases of chlorosis and other impoverished conditions of the blood, and in chronic diarrhoea and some forms of kidney disease; but, as a beverage, as now generally used, the water is simply tolerated by the system and does but little good. People, with the idea that iron will strengthen them, drink continually of our chalybeate waters, experiencing, as the result of their imprudence, headache and febrile action, with vertigo or tightness across the forehead, followed by restless nights and a loss of appetite. There is a popular notion that if a person feels weak he needs a tonic or iron. These words have become synonyms, but erroneously so. Nothing is more weakening than iron, if not needed in the system as a remedy. Speaking in reference to this popular error, Dr. Steel says, in his "Analysis," that "it would be better for the public if the iron springs were closed during a large portion of the day."

In the use of the saline waters many seek the most active effects, and are not satisfied without the most powerful cathartics every day. It is rarely the case that these waters can be beneficially used after eating, but they may be so used at times, as when the *prima vie* is in an acid condition and needs the neutralizing effect of the water to restore normal action. If, however, the water be taken after eating, with healthy digestion, or without an acid tendency, it would cause great gastric trouble and stop the whole process of digestion, in many cases producing violent cholera morbus.

As alterative remedies nothing can surpass certain of our mineral waters. They readily take the place of other medicines which fret and irritate the patient by daily use. They tone up the stomach, stimulate the appetite, regulate the bowels, and produce better assimilation. While these effects are produced the blood rapidly improves in quantity and quality, and the nervous system responds to the general improvement, securing tranquillity, sleep, and general health.

These are the usual results on all persons suffering from functional diseases. Organic difficulties are benefited more by our mineral waters than by any other remedial agents, for the reason that the latter tend to prevent healthy functional action, which these waters powerfully sustain and promote.

These waters are wonderfully adapted to the wants of the human constitution. They furnish it material for its wasted and wasting tissues and energies. Take all the component parts which, by chemical analysis, are found to enter into our physical organism—the iron, lime, sulphur, potassium, silicium, sodium, phosphorus, chlorine—and compare these with the chemical ingredients of our best mineral waters. Take, if you please, Congress water. You will find that it is composed of nearly the same that is found in man; and thus the very wants of our organic natures are supplied in our mineral water from nature's own laboratory.

Who can wonder at the rapid recuperation of invalids at our springs when life itself is imbibed with every glass—the very "web and woof" of the human structure in every tumbler of mineral water? The absorption is slow, but sure; and diseased functional action is here more certain of improvement than from the use of any other medicines, or medical treatment known to the profession. I speak from my own observation and experience, and believe that when the physicians of our country become acquainted more intimately with the medical capabilities and powers of our springs, they will send their patients here with the greatest confidence in their improvement and restoration.

The question is often asked me, "Do you give medicine to those who desire to use the water?" My answer is, "No, not if I can help it." More medicine was formerly given than now. In the days of blue pills, they were always given before drinking the water. I sometimes find it better to give a mild pill to hasten the cathartic effect. Patients arrive here in the afternoon or on an evening train, and need many times a little medicine to assist the morning drink in overcoming the inactive condition of the bowels caused by travelling.

It is very important that the first effect of the mineral waters should be correct, as the kidneys are easily excited by them, and are liable by excessive action, to prevent for several days, and sometimes weeks, the cathartic effect—producing pain in the back, and headache, with muscular prostration.

Sometimes other auxiliary medicine is given, but the rule should be, "nothing but mineral water." Most patients have been medicated at home. Enough medicine can be obtained anywhere, but the object in coming to Saratoga is to try the remedial effects of mineral waters. I always understand that the physician who has sent his patient here for change of air and treatment means mineral water and nothing else. The change is slow, but radical, and the treatment decidedly constitutional and effective.

There is a wide-spread impression among the people that invalids must not go to Saratoga, or drink mineral waters, if they have any pulmonary or lung difficulties. It is thought by many that the climate is unfavorable and the spring water injurious, and that gases arise from the springs which are fatal to that class of invalids. Such is not the case. Our air is peculiarly dry and pure. We have less pulmonary disease than in healthy country towns. The only gas that rises from the water is carbonic-acid gas, which is much heavier than atmospheric air, and does not rise to the top of the tube at any time; but if it did would remain close to the ground after its escape. Some of our springs are used by this class of patients with excellent effect. The skin becomes moist, the pulse less frequent, and the febrile symptoms disappear: the cough grows less troublesome, the appetite improves, and the invalid gains flesh and strength under the alternative action of the water. The improvement has been so great in many instances that the persons benefited have desired to leave a certificate of their great improvement to aid in removing the public impression that pulmonary diseases are not benefited here.

There are many forms of dyspepsia that are entirely cured by the use of some of our springs. I have known patients who were greatly worn out and debilitated by this disease, improve every day, until wholly restored. These cures are common, and great merit may justly be claimed for the medicinal power of some of our springs in these cases.

Salt-rheum and many other cutaneous diseases are surely and speedily cured by the use of our alternative waters.

I did not intend to speak of particular diseases as benefited here. It would require too much space to enter fully into this subject, but the diseases I have mentioned are so surely cured that I feel justified in speaking of them to the exclusion of others. General directions for the use of the waters have often been given, and as often failed. The popular or cathartic effects of our waters can be readily obtained by the use of several of our springs, but with such different results that ordinary professional caution requires that the application should be as personal as the examination.

A few words in regard to Saratoga air for the people of our large cities. New York and Brooklyn, with their suburban surroundings, send as many visitors to Saratoga as all the rest of the country. The change is a natural one, and congenial to their requirements. It is not so much because Saratoga is near and easy of access, but because it is, in its natural climatic influences, adapted to their wants as an alternative and tonic. These people live near the sea-shore, with a changeable, humid atmosphere. Saratoga is inland, with a dry, pure air, filled with oxygen, coming down from the forests of neighboring mountains, and pleasantly tempered by a dry soil, with shaded streets and walks. In the city they are surrounded by malarial vapors and gases, tending more or less to vitiate the air they breathe, producing diseases of a malarial type. Saratoga is anti-malarial in all its influences and tendencies, and furnishes certain relief. The air of the city and neighborhood is humid, and often irritating to the mucous membrane of the throat and lungs, producing bronchial and catarrhal troubles. Saratoga air acts as a balm on the irritated and inflamed mucous membrane of invalids from the cities and malarial localities. One feels inclined at Saratoga to take in long inspirations, so agreeable and invigorating are the sensations; but in the city, one feels like shutting out, as much as possible, the gritty air.

Boston people are usually benefited greatly by our climate and water, and many of the clergymen of that city, with those from New York and Brooklyn, are annual visitors here. I am inclined to think we have a greater number of clergymen among our visitors than all other summer resorts combined. These need something more than the mere change of climate, something more than simple rest from labor. As a class they are sedentary in their habits, and contract severe functional diseases, and must have some constitutional treatment other than climatic influences. For this treatment the mineral waters seem peculiarly fitted.

I wish to speak of Saratoga as a place of fashionable resort, rather than as a resort for fashionable people. Her fine climate and pleasant surroundings would not alone secure to her permanency of prosperity. From Cape May to Newport rival resorts would spring up. Fashion is fickle, and can send her votaries to any place her caprices or whims may dictate. But nature has been lavish of her gifts, and has placed here her great mineral laboratory, thus lifting Saratoga above any possible competition as a merely fashionable watering-place, and placing her conspicuously before the world on her local merits—her fountains of health-giving mineral water.

The future growth and prosperity of Saratoga will be stimulated more by the use of these fountains as medicinal agents than as a fashionable resort. The place was intended by nature for a quiet place. The first effect of the water, so grateful to the invalid, is to insure sleep and repose. People leave business cares at home, and come here to forget them; they learn to sit still: they do not walk, but saunter: and they sleep at all hours of the day, and all night, until they are completely and perfectly rested. Their digestion is good, and they feel quite at ease with the whole world. These are some of the primitive effects of drinking our mineral waters, and are the foundation-stones of the healthful structure to be built up here. This restored quiet means a great deal, and is difficult to attain by ordinary remedial agents. Insomnia has no dwelling place at Saratoga, and cerebral hyperæmia takes its flight.

L. E. WHITING, M.D.

SARATOGA SPRINGS, N. Y.



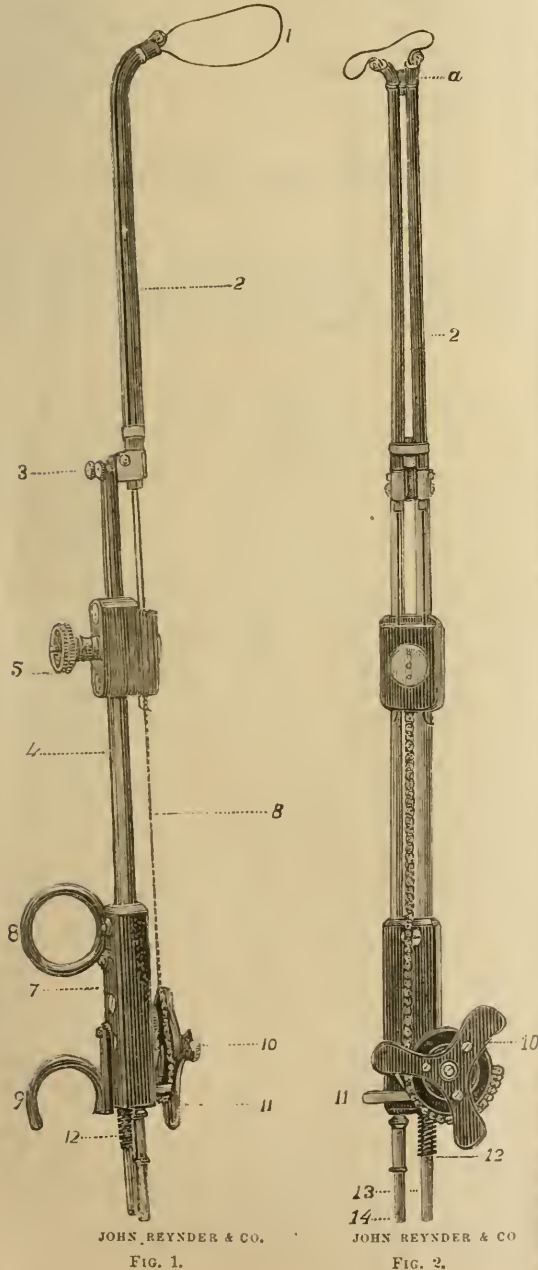
## New Instruments.

## A NEW GALVANO-CAUSTIC ÉCRASEUR.

By LOUIS F. SASS, M.D.,

NEW YORK CITY.

THIS instrument, devised by me, will, I believe, be found to possess many advantages over similar ones heretofore in use. The objects aimed at have been



JOHN REYNOLDS &amp; CO.

FIG. 1.

JOHN REYNOLDS &amp; CO.

FIG. 2.

strength, simplicity, neatness in appearance, and applicability to the wants of general practitioners.

For facility of description I shall present a front

and a profile view of the same, the instrument itself being just twice the size of the accompanying cuts.

Fig. 1 shows side view. (1) is a platinum wire loop passing through the tubular bars (2), these being covered with English elastic bongies so as to insulate the metal, and to protect them from coming in contact with the flesh. (3) are two screws which firmly connect the tubular bars or anterior half of the electrode with the main part (4), and the handle (7). The bars (2) can be removed by loosening the screws (3), and the handle then used to insert any of the active cautery knives, and thus obviating the additional use of a handle for the same. (5) is a rubber sliding vise which has on its under surface a brass screw by means of which the vise can be relaxed or tightened with the greatest facility so as to grasp the free ends of the loop, and thus by a single turn of the screw the wire is securely clamped. (6) is the chain made on the principle of the écraseur chain used in surgery; one end of this chain is attached to the vise, the other end winds over the cog-wheel (10). (7) represents the handle of the instrument, made of vulcanized rubber, and presenting on its under surface a brass ring (8), through which the index-finger is introduced; also a half ring (9), for the purpose of holding the instrument and connecting or interrupting the current with the thumb of the same hand, the latter being accomplished by means of the spiral spring (12); thus when the pressure is brought to bear on the half ring (9) is relaxed, the spiral spring, acting by its elasticity, will separate the lower from the upper part of the electrode on the right side, inside of the rubber handle: the circuit is thus made and broken with the greatest facility.

Fig. 2 shows front view of the instrument. On the upper surface of the handle in this figure will be seen the cog-wheel over whose cylinder the chain winds, and thus effecting the contraction of the loop, also the finger-pieces (10) by which the wheel is rotated, the stopper or click (11) which prevents the backward rotation of the wheel, and consequently the loosening of the loop. The cog-wheel (10), or stopper (11), spring interrupter (12), the pole connections (13 and 14), the superior horizontal bars (2), and the small pulley-wheels (a) can be seen to better advantage in Fig. 2.

The mechanism of the instrument is exceedingly simple. The wire being passed through the tubular bars (2), its lower ends secured in the vise (5), and the loop adjusted around the part to be extirpated, the electrode is then connected with the battery, the current connection established by gently pushing with the thumb the half ring (9). The cog-wheel is then rotated with the finger of the disengaged hand until the loop has contracted sufficiently to burn through and effect the extirpation of the growth or part to be removed. A glance at the illustration will show how the winding of the chain around the cylinder of the cog-wheel pulls the vise backwards, and this in its turn the wire loop whose end it holds. The cog-wheel revolves with a clicking sound, each click denoting the contraction of the loop one-sixteenth of an inch in its diameter.

The advantages I claim for this instrument, without dwelling upon the great ease with which it is worked, or the neatness and elegance of its construction, are:

1. It is constructed in such a manner as to present on its upper surface no obstruction to the eye of the operator, a desideratum greatly to be appreciated when operating in cavities, as the vagina, uterus, rectum, etc.

2. The small pulley-wheels (a) Fig. 2, over which

the loop glides, greatly facilitates its retraction, thus preventing heavy friction and jarring, which naturally would result in the irregular or jerking contractions of the loop, and thereby greatly increasing the danger of hemorrhage, which may be avoided if the wire is contracted slow and gradually. As the great end which we seek to obtain in the use of the galvano-caustic écraseur, as well as with the wire écraseur, is the avoidance of hemorrhage, I claim this as one of its most valuable properties.

3. Both ends of the wire are firmly secured by one single screw, which saves a great deal of unnecessary delay in adjusting, and constitutes a safeguard against the possibility of one of the ends getting loose.

4. The mechanism of contracting the loop by the winding of the chain around the cog-wheel places the instrument always under the control of the operator, who can cut through the tissues with the heated loop as rapidly or slowly as he pleases, and as each clicking sound of the wheel indicates the exact progress made, this will enable him to allow the necessary time for coagulation of the blood, hereby effectually preventing the occurrence of hemorrhage.

In a number of extirpations of hemorrhoids, fibromas, and protruding erectile tumors, this instrument has in every respect served the purpose for which I designed it, and the security which it affords against hemorrhage will, I think, render it exceedingly valuable for extirpations of the tongue and of deep-lying tumors.

73 W. 36TH STREET.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 16 to June 22, 1878.*

TOWN, F. L., Major and Surgeon. Granted leave of absence for eight months, with permission to go beyond sea. S. O. 128, A. G. O., June 13, 1878.

TREMAINE, W. S., Capt. and Asst. Surgeon. Leave of absence extended one month. S. O. 47, Div. of the Missouri, June 14, 1878.

BENTLEY, E., Capt. and Asst. Surgeon. Granted leave of absence for one month. S. O. 74, Dept. of the Gulf, June 12, 1878.

TAYLOR, M. K., Capt. and Asst. Surgeon. Granted leave of absence for one month from July 1st, with permission to apply for four months' extension, and to go beyond sea. S. O. 123, Dept. of Texas, June 13, 1878.

HEIZMANN, C. L., Capt. and Asst. Surgeon. To proceed by C. P. R. on 10th inst. to Elko, Nev., and on arrival, report to Capt. Thomas Byrne, 12th Infy., for duty with his command. S. O. 82, Div. of the Pacific, and Dept. of California, June 8, 1878.

GRARD, A. C., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon Crampton, to proceed to Fort Keogh, Mont., and report to the Post Commander for duty. S. O. 72, Dept. of Dakota, June 14, 1878.

HALL, J. D., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Stockton, Texas. S. O. 124, Dept. of Texas, June 14, 1878.

MERRILL, J. C., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month on Surgeon's certificate of disability, with permission to leave limits of Department. S. O. 126, Dept. of Texas, June 17, 1878.

HALL, W. R., 1st Lieut. and Asst. Surgeon. To accompany the troops leaving Fort Canby June 4th,

for field service. S. O. 65, Dept. of the Columbia, June 3, 1878.

CRAMPTON, L. W., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Randall, D. T. S. O. 72, C. S., Dept. of Dakota.

SPENCER, W. G., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Townsend, to proceed to Fort Boise or vicinity, and report to the chief Medical officer on duty with troops in the field. S. O. 65, C. S., Dept. of the Columbia.

Having passed a satisfactory examination before the Army Medical Board, in session in New York City, the following medical gentlemen have been appointed by the President Assistant Surgeons, U. S. Army, to date from June 6, 1878, and confirmed by the Senate: Victor Biart, W. W. Gray, Louis Brechemin, and Louis A. La Garde.

### Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 22, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| June 15, 1878.... | 0             | 7              | 70             | 2                          | 37       | 35          | 0          |
| " 22, 1878....    | 0             | 3              | 73             | 1                          | 47       | 39          | 0          |

DR. WILLIAM E. HALL died at the residence of his father, Gen. James F. Hall, at Tarrytown, N. Y., at the early age of 33. He was a graduate of the College of Physicians and Surgeons of the class of 1870, and served as an *interne* at Charity Hospital. He was a Curator to that institution from 1871 to 1875, when he was obliged to resign on account of failing health. He was for four years a member of the Board of Health of New York City. The conscientious painstaking and zeal with which he discharged his duties as Health Inspector, Curator to Charity Hospital, Surgeon to the Bureau of Medical and Surgical Relief for Out-door Poor, Private Instructor in Anatomy and Surgery, together with the cares of an increasing private practice, are believed to have hastened the development of the disease which terminated his life. During the war he served in the Department of the South on the respective staffs of Generals Turner, Foster, Gilmore, and Hatch, and it is a remarkable incident that at the same time his father and grandfather were in the field, making three generations represented in the Union army at the same time. As a physician he was in no ordinary degree conscientious and self-sacrificing, and his ability and acquirements seemed to promise for him a high rank among his fellows. The early closing of a career that promised so great usefulness is truly sad, but the bright example of his Christian life, and earnest devotion to his duties, cannot fail to bear much fruit, and he has left to his friends a rich legacy of precious memories.

DR. BROWN-SÉQUARD.—The *Gazette Médicale* of Paris does not favor the candidature of Dr. Brown-Séquard for the Chair of Medicine in the Collège de France, which was left vacant by the death of Claude



Bernard.<sup>11</sup> It argues that M. Brown-Séquard is too much of a traveller; that he is too fond of change of place and of nationality, while stability is a first essential in a savant charged with instruction in one of the higher branches of science. It asserts that M. Charcot would be the most acceptable successor to Claude Bernard, although his appointment would necessarily involve a departure from the paths of investigation and instruction followed by the great physiologist and his predecessor, Magendie.

THE PARIS INTERNATIONAL CONGRESS OF HYGIENE will meet in the middle of August.

TREATMENT OF SORE NIPPLES.—Dr. Haussmann, of Berlin, recommends very highly the use of lotions containing five per cent. of carbolic acid, in the treatment of erosions of the nipples. He claims that the carbolic acid not only cauterizes superficially the eroded spot, but that it penetrates into the openings of the smallest lymph-vessels which have been laid bare by the erosion, and destroys at once any parasitic germs or infectious organic substances that have been conveyed to the nipple by the mouth of the child or the hands of the physician or nurse, or of the woman herself. In so doing it prevents the development of almost all inflammations of the mammary gland itself. Of course the nipple must be carefully cleansed every time the child is put to the breast.—*Centralblatt für Gynäk.*, No. 10.

TREATMENT OF BLENNORRHOIC CONJUNCTIVITIS.—Prof. Gosselin, of Paris, treats his cases of blennorrhagic conjunctivitis, when seen before suppuration of the cornea has set in, by instillations of alcohol. He first cleanses the surface of the conjunctiva by injecting a stream of cold water, with moderate force, under the eyelids, and then instils into the eye a few drops of a mixture containing one part of alcohol at 90° and four parts water. This process is repeated every three hours. In the intervals the eye is kept constantly covered with compresses wrung out of cold water, and is frequently washed with the same. When the suppuration is very free the injections of cold water under the eyelids may be repeated oftener than every three hours. Prof. Gosselin believes that this treatment arrests the suppuration more rapidly than any other, and it has, at all events, proved the most successful in his hands. The power of alcohol to moderate and even prevent suppurative inflammation has been well demonstrated, and he uses it not only in cases of suppurative conjunctivitis, but also in the treatment of wounds, whenever they are sufficiently superficial to permit him to hope that they can be made to heal without suppuration. In dressing wounds of the head in particular, he always uses alcohol. After the suppurative process in the conjunctiva has ceased, the chemosis sometimes persists, and may require incision, or even excision. A prolonged course of treatment with nitrate of silver or sulphate of copper may also be necessary to prevent the formation of granulations in the conjunctiva.—*Recueil d'ophtalmologie*, April.

TREATMENT OF CHRONIC PHARYNGITIS.—Prof. Pippingssköld, of Helsingfors, treats pharyngeal catarrh by gargling morning and evening with water at a temperature of from 59° to 68° F. About two tumblers of water must be used on each occasion, and the gargling must be continued for several months, and perhaps even for an entire year, or, if left off sooner, must be recommenced as soon as the symptoms of catarrh become troublesome. The Professor claims that the water, when used at the above temperature,

lessens the hyperæmia, and restores the tone to the vessels of the soft palate; ice-cold water, on the other hand, would cool the parts more for a time, but it would excite reaction with increased hyperæmia, and might easily do more harm than good. The treatment has also proved useful in cases of granular pharyngitis.—*Allg. Med. Cent. Zeit.*, April 20th.

COLOR-BLINDNESS IN SCHOOL-CHILDREN.—Since November of last year Prof. Cohn and Dr. Magnus have examined 5,079 school-children in Breslau, Germany, for color-blindness. Out of 2,761 boys, they found 76, or 2.7 per cent., who were undoubtedly color-blind, and out of 2,318 girls only one, or 0.04 per cent. The percentage of Jewish children, who were affected with color-blindness, was twice as great as that of Christian children. The examinations were conducted with great care and thoroughness, so that the above figures may be regarded as thoroughly reliable. Two facts, which are, at all events, worthy of note, may be deduced from them, viz., that color-blindness is exceedingly rare among girls, and that the affection is much more common among Jews than among Christians.

SECRET REMEDIES.—It seems that even aristocratic personages are not averse to turning an honest penny by the manufacture and sale of secret remedies, the latest addition to the great army of proprietors of such remedies being no less a person than the Grand-duchess of Mecklenburg-Schwerin. That noble benefactress of her race advertises a powder which is claimed to be a sovereign remedy against the convulsions of childhood. As a convincing proof of its efficacy, the vulgar are informed that the powder once cured her Excellency's aunt of severe convulsions. One of our German contemporaries mildly suggests to the lady the propriety of having the powder analyzed, and given to physicians for trial. We hope, for the sake of our belief in educated women, that the suggestion will be acted on at once.

TREATMENT OF INTERTRIGO IN CHILDREN.—Dr. Wertheimer recommends the external use of a solution of corrosive sublimate (gr. i. to ʒiijss. water) for the intertrigo of children, and asserts that it is the most effective of all the remedies recommended for that affection. The affected spots are covered with pieces of lint soaked in the solution. Sometimes it is sufficient to keep these compresses on for an hour at a time, three or four times a day. The curative action is very rapid, the redness and exudation often disappearing in 24 to 36 hours. General symptoms, due to the absorption of the drug, have never been observed by Dr. Wertheimer; the danger of absorption is not great, as the applications do not, as a rule, need to be continued more than a few days. When the improvement is pretty well advanced, dyachylon ointment may be substituted for the solution.—*Berliner klin. Wochenschrift*, No. 15.

TREATMENT OF INTESTINAL INVAGINATION BY ELECTRICITY.—Dr. Bucquoy has reported three cases of intestinal invagination that were cured by electricity. This method of treatment was recommended some time ago by Lervy (d'Étoiles) and others, but it has seldom been put in practice. Dr. Bucquoy used the interrupted current in his cases; an olivary rheophore was introduced into the rectum, and a moist rheophore held on the abdomen, so that the current acted both on the intestinal and the abdominal walls—principally, perhaps, on the latter. Each séance lasted about ten minutes. The treatment is not painful, even to children, provided the currents used at first be very

weak and the abdominal rheophore be applied lightly. It must be begun, however, before inflammation has set in. The bowels do not always move immediately after the application of electricity, an enema or purgative being sometimes required to complete the treatment. Dr. Buequoy also employs other methods of treatment, such as ice to the abdomen, simple enemata, excessive distention of the gut, etc., as adjuvants to the treatment by electricity.—*La France Médicale*, April 17th.

**VOMITING IN PREGNANCY.**—Dr. Lubelski, of Varsovia, reported a few years ago some cases of chorea that were rapidly cured by the ether-spray, and the treatment has since been tried with equal success by other physicians. Dr. Lubelski now employs the ether-spray also in the treatment of obstinate vomiting during pregnancy. He directs the spray to be applied to the epigastric region and the corresponding portion of the vertebral column; it should be continued from three to five minutes, or even longer, if well borne, and be repeated every three hours. In rebellious cases he advises an alternation of chloroform and ether-spray. He begins the treatment as soon as vomiting, or even nausea, makes its appearance. M. Dujardin-Beaumez has recently reported a case of obstinate vomiting in the second month of pregnancy that was cured by this treatment. The patient was unable to retain anything at all on her stomach, although all the usual remedies had been tried. Finally, the ether-spray was resorted to; it was used five minutes before each repeat, and was directed against the middle of the back and the middle of the stomach. Richardson's apparatus was used. The vomiting stopped almost immediately and did not return when the treatment was suspended, eight days afterwards.—*Gazette des Hôpitaux*, April 20th.

**A BABY OPIUM-EATER.**—Dr. Little, of this city, reports the case of an infant suffering from suppurative inflammation of the knee-joint, who, when under eight months of age, took on one occasion two ounces (3 ij.) of Magendie's solution of morphine in twenty-four hours—one and a half ounce of this quantity was taken within twelve hours. The child had been an opium-eater from the time it was three weeks old; the inflammation of the knee-joint set in at that time, and the mother commenced to administer small doses of paregoric to relieve the pain. The daily dose of morphine has been gradually reduced since the day when the two ounces were taken, and at the time Dr. Little's statement of the case was written the child was getting only ten drops of Magendie's solution at bed-time.—*Am. Journal Obstet.*, April.

**TREATMENT OF PITYRIASIS VERSICOLOR.**—Prof. Hardy treats this affection with sulphur-baths, or frictions, several times a day, with the following ointment: R. Axungire, 3 i.; sulphur, 3 ss.; acidi nitrici, gtt. x. M. Internally he gives mineral waters if the case be a severe one, and follows them up with Fowler's or Pearson's solution of arsenic, in doses progressively increasing from three to ten drops. The drops are taken before each meal in a glass of wine and water.

Dr. Besnier, of the Hôpital Saint Louis, Paris, gives the preference to sublimate baths, or, where these cannot be used, to frictions with a soap containing pumice-stone, followed by lotions with a solution of corrosive sublimate, gr. iv. to 3 iv. distilled water. Where it is not considered safe to leave so poisonous a mixture in the hands of the patient, Dr. Besnier substitutes the following simple treatment: Lotions with

soft-soap, followed by three applications of an ointment containing 3 ss. of Turpeth mineral to the ounce of lard. In one of his patients, whose entire chest and back were covered with the patches of pityriasis, a cure was produced by two lotions and only two frictions.—*Lyon Médical*, May 5th.

**TWO CASES OF STRANGULATED HERNIA TREATED BY ERGOTINE.**—The first case was one of recent hernia in the right groin. The tumor was about as large as a chestnut, hard, and too sensitive to permit of the slightest attempt at taxis. The skin over the tumor was washed with warm water containing an alkali, to render absorption more easy, and pure ergotine was then rubbed into it every two hours. At the same time a tablespoonful of a solution consisting of grs. lxxv. of ergotine in 3 iv. of vehicle was administered every hour. About five hours after the treatment was commenced the vomiting and colicky pains began to abate, and the tumor became less sensitive, and twelve hours later the hernia returned spontaneously.

In the second case, several unsuccessful attempts had been made to return the hernia by taxis, and leeches and the ether-spray had also been employed in vain. Finally, as the case was becoming desperate and inflammation was threatening, it was decided to try the ergotine treatment as a last resort before having recourse to operation. The treatment was carried out exactly as in the above case. It was begun at three o'clock in the afternoon, and at six o'clock on the following morning all the symptoms were relieved and the tumor was reduced with the greatest facility.—*Le Bordeaux Médical*, April 30th.

**TREATMENT OF TINEA FAVOSA.**—Dr. Viger reports two cases of tinea favosa that were cured by external applications of the oil of cade. In both cases almost the entire head was covered with thick coats of favus. The local treatment was as follows: The head was washed morning and evening with soap and water, after which it was anointed with oil of cade, and then covered with a cap of oiled silk in such a manner as to prevent the admission of air. Internally, cod-liver oil and a nourishing diet were prescribed. Under this treatment the crusts rapidly disappeared, and both the patients were discharged cured, after two months of treatment. One of these cases was treated eighteen months ago, and the other six months ago, and neither of them have as yet shown any symptoms of a relapse.—*L'année Médicale*, April.

**PHTHISIS IN VICTORIA.**—From a special report prepared by a committee of the Victoria (Australia) Medical Society, it appears that the mortality from phthisis in that colony is but little more than half that of England from the same cause, has grown perceptibly less of late years, and is especially low among persons under fifteen or twenty years of age. The annual mortality per 10,000 in England and Wales, from 1860 to 1864, from diseases of the respiratory system, was 34.09; from 1870 to 1874, inclusive, 36.14. From phthisis alone, from 1860 to 1864, the yearly rate per 10,000 was 25.66, while from 1870 to 1874 it was only 22.83, showing an increase in respiratory diseases, but a decrease in phthisis. In Victoria, from 1860 to 1864, respiratory diseases destroyed yearly 15.90 per 10,000; from 1870 to 1874, only 14.82. Phthisis, during the first four years of the last decade, presented an annual mortality of 13.08; during the first four years of the present decade, 12.60; showing a slight decrease in both during the ten intervening years.



**HYPODERMIC INJECTIONS OF ERGOT.**—Labarde says that the nearer the hypodermic injection is to the part it is desired to affect, the quicker will be the result, and Delore, for the same reason, injects ergotine in the tissues of the uterus for fibrous tumors of that organ.

**MATERIA MEDICA OF THE HINDUS.**—A reviewer of Uday Chand Dutt's "*Materia Medica of the Hindus*" gives, in a recent number of *The Doctor*, the following interesting summary:

"Aconite is used in fevers and other diseases; the power of this poison is highly developed in the varieties grown in hot climates. Opium, now so important a product of India, is not mentioned by the ancient Sanskrit writers, and was probably introduced by the Mussulmans, its name being derived from the Arabic. Its use seems to be more understood than that of many drugs. *Ægle marmelos* is widely used as a medicine, and has attracted some attention in Europe. The Bela tree is always found near the temples of Siva, to whom it is sacred, the leaves being used in the ceremonies. The unripe fruit, the dried pulp, the juice of the leaves, decoction of the root, etc., are employed, and the plant seems adapted for the treatment of disorders endemic to the climate, as is attested by Anglo-Indians. *Mucuna pruriens* has a peculiar reputation, and it is conjectured that the English name cowhage may be from the Hindu *Kiwach*. Cassia is indigenous, and the beautiful *cassia fistula* tree obtains in Sanskrit a name signifying 'King of Trees.' The cassia sophora is called *Kāsa-manda*, or destroyer of coughs, and prescribed for that purpose; but the author does not find it is much used for this at the present day. The tamarind is found throughout India, and its properties were known in early times. The Arabians derived their knowledge of it from the Hindus, and named it *Tumare-hindi*, from which our word seems to have been taken. Catechu, as an ingredient of the betel-leaf chewed by the natives, is of course well known, and its astringent action is understood and utilized in diarrhoea. It is also used in diseases of the mouth and in skin diseases. The large Indian gourd eaten in curries is also thought to be a specific for hæmoptysis, but the older books do not mention this property. There is a prickly shrub of the euphorbium kind, which is sacred to the goddess of serpents, but of which the Hindus use the milky juice, not only externally but internally, giving it with other medicines as a drastic. Externally it is rubefacient. Indian nemp is used as *bhāng* and in other forms for its intoxicating effects, and sometimes as a medicine. The author tells us that some castes among the up-countrymen and some Bengalese do not use any narcotic, but that the ordinary run of orthodox Hindus, accustomed to their little excitements, use *bhāng* without incurring the opprobrium that would result if they resorted to alcohol. Sugar is largely used in Hindu medicine; the cane and the manufacture were known from early times. The Sanskrit, named *Sarkara*, in Arabic became sakkar, and in Latin, the familiar saccharum; candy, too, can be traced back through the Arabic *kand* to the Sanskrit *khanda*. This part of the book closes with the products of fermentation, of which many are mentioned. The animal materia medica is less attractive. Leeches were known at a remote period. Eight sorts of honey are described by Susruta, and wax is used for ointments. Serpent-poison has only been used in recent times, but musk has long been known. The properties of the milk of various animals have been described in great

detail by Sanskrit writers. All, except human milk, are advised to be taken boiled. Buttermilk, whey, butter, etc., are also described. Bile is used as a laxative. The urine of various animals, especially the cow, is minutely described, and used in anasarca, urinary diseases, colic, jaundice, leprosy, etc. The properties of the flesh of various animals are also distinguished. With regard to the prescriptions, we observe they are characterized by that complexity which has always marked medicine, save in its latest stage."

**WRITERS' CRAMP.**—A paper on "Writers' Cramp and Impaired Writing Power," recently read before the Royal Medical Society by Dr. Vivian Poore, supplements his important series of articles contributed to the *Practitioner* in 1873, with further observations. He classifies his cases into six groups, thus: paralytic, six cases; spasmodic, five cases; degenerative, nine cases; neuralgic or neuritic, nineteen cases; proper writers' cramp, thirty-two cases; anomalous, four. His conclusion from all the cases cited is, that writers' cramp is a disease of insufficient muscular co-ordination, but he dissents from the hypothesis of a special nervous centre controlling and co-ordinating the muscles in writing, because (1) he has never observed a case without evidences of peripheral alteration, and because there is, as a rule, no evidence of alteration in any other quarter; because (2) writers' cramp is never suddenly established as aphasia often is; because (3) if there is such a co-ordinating centre, it is the first instance on record of a nervous centre created by education in a special series of movements. Dr. Poore inclines to the opinion that the disease is essentially neuralgic. M. Gallard, on the other hand, in his just published volume, "*Clinique Médicale de la Pitié*," brings forward a large number of cases tending to show that the disease evades any anatomical localization whatever, that fatigue is far from being one of its essential causes, and that it is a purely functional disturbance, common to engravers, artificial flower manufacturers, pianists, violinists and telegraph operators, as well as writers. An American observer finds it most prevalent among persons who use glazed papers, such as foolscap, in writing, and, from analysis of extract of such paper, after boiling thoroughly, suggests that in many instances the disturbance probably has its origin in the local absorption of the lead or arsenic employed in the manufacture.

**INSANITY IN ITS LEGAL RELATIONS.**—Dr. John Charles Bucknill, in referring to Lord Coke's ancient classification of insanity, said: "Like all kinds of insanity which have any interest for lawyers, it is based upon mental qualities and conditions, and not upon the physical substratum. It is this point which, more than any other, we are bound always to bear in mind in the consideration of the diagnosis of insanity for legal purposes. In courts of law the diagnosis refers entirely, not to the existence of bodily disease which is the cause of insanity, but to the product of that disease."

He denied the statement of lawyers that medical men considered insanity a disease. He considered it the result of diseased conditions, and while he admitted that insanity, as a legal fact, was the only proper subject of legal inquiry, still, as it has been shown that a diseased condition of the body had been proved in a number of instances to be the cause and condition of the fact of insanity, the connection must be held to exist. In that case the fact of insanity could not be considered without reference, tacit or expressed, to the fact of bodily disease which underlies it.

The question of homicidal insanity is fully discussed. He doubts the existence of impulsive insanity to kill, as a specific form of insanity, in which there are no other symptoms of mental disease, and adds: "The conclusion, therefore, to which we must come is, that homicidal insanity—the impulsive insanity to kill—is either due to imperfect observation, which has failed to detect real derangement, or to a mistaken estimate of a real criminal."

**CONGENITAL ABSENCE OF ONE KIDNEY.**—In the current number of Virchow's *Archiv*, Dr. Baumer has collected from various sources forty-eight cases of this interesting malformation. In forty-four cases it was entirely absent, and in the other four rudimentary. It was as often absent on one side as the other. It was of more frequent occurrence in the male than the female. In most cases in which the kidney was absent the suprarenal body was present; in two cases it was enlarged, in five cases it was absent. In thirteen cases an arrest of development of the sexual organs was observed.

The remaining kidney was in all cases enlarged and increased in size and weight, and a corresponding development of the vessels and ureter.

This is a fresh and striking proof of the completeness with which the one kidney can carry on the functions of two without suffering degeneration in consequence of the increased work.

**SALICINE IN RHEUMATIC FEVER.**—Dr. John Martin, senior medical attendant of the Belfast Dispensary, reports six cases of rheumatic fever, successfully treated with ten grains of salicine every third hour. The treatment had to be continued from five to ten days, and was followed by a tonic regimen of quinine and iron in each case. He regards salicine as a potent factor in the prevention of rheumatic palsy, and of cardiac complications, and attributes its potency to a direct action upon the rheumatic poison, by which it is decomposed and eliminated from the system.

**CEREBRAL LOCALIZATION AND AMPUTATION OF EXTREMITIES.**—A case of amputation of the right thigh at the age of nineteen, followed by atrophy of the fold passing from the second left frontal convolution to the anterior marginal one, is reported by Drs. Le Double and Viollet, of Tours. The patient died of tubercular pleurisy thirty-one years after the operation. The general appearance of the brain upon autopsy was found to be symmetrical with equal lobes, with exception of a very evident depression of the membranes in front of the anterior marginal convolution, which became more apparent on the removal of these envelopes. The left anterior marginal convolution had the same volume as the right, but the fold passing from it to the second convolution presented all the usual phenomena of atrophy. As the case was one bearing upon the disputed issue of cerebral localization, the reporters took the trouble to collate analogous cases, of which they found seven on record. In the first, amputation of the left arm had been followed, in the course of five years, by atrophy of the superior portion of the ascending convolution of the paracentral lobule. In the second, amputation of the thigh had involved atrophy of a cerebral lobe and corresponding marginal convolutions, in the course of thirty years. In the third, amputation of the thigh having been performed, the patient died nine months later of purulent infection, and no atrophy had yet taken place. M. Luys reported three cases of his own to the Academy of Medicine, France, in October, 1877, in which amputation of the leg had been followed by atrophy of the upper part of an ascending

frontal convolution. The seventh case was one of arrested development of the leg, reported by M. Landouzy, in which the atrophy involved the superior part of the ascending parietal convolution. Analysis of these cases shows that the lesion occupied a point near the motor centre proposed for leg by Curville, Duret, and Ferrier, in only one of them.

**STIMULANTS IN TYPHOID FEVER.**—In a recent clinical lecture, Prof. Pepper, of the University of Pennsylvania, has some observations upon the contested issue whether stimulation is valuable in cases of typhoid fever. "Stimulants," he is of the opinion, "are, as a general rule, only needed in the case of an elderly person, or to meet certain indications, such as (1) ataxic nervous disturbances, sleeplessness, muscular spasms, maniacal delirium; (2) circulatory disturbances, feeble and rapid pulse, and feeble development of the first sound of the heart; (3) profound asthenia, as shown by great trepidulousness, inability to make any movement, and tendency to slide downward off the pillow; (4) dry and brown tongue, sordes on the lips, teeth, and tongue." In using stimulants, he recommends to begin with the milder forms, such as wine whey, made in the proportion of one part sherry to three parts milk, from a gill to a half-pint to be given in the course of three hours. He prefers to give whiskey in lime-water and milk, in the proportion of one tablespoonful of each of the former to three ounces of the latter. Half an ounce of whiskey per hour he regards as the maximum dose.

**HYPODERMIC INJECTIONS OF CHLOROFORM.**—These injections have been highly recommended by eminent physicians as a substitute for morphia. It is claimed that they are painless, that they relieve pain rapidly and for several hours, and that they are entirely innocuous, being followed by neither local nor general symptoms. Dr. Jochheim, of Darmstadt, however, reports a case in which the injection of only ten drops of chloroform, which is only half what is frequently administered, was followed by severe local disturbances. Five hours after the injection a violent local inflammation set in, and in twenty-four hours a hard, black slough had formed, which was not cast off by suppuration until six weeks afterwards.—*Ally. Med. Cent. Zeit.*

**ANNUAL MORTALITY.**—The annual death-rate per 1,000 persons living, of the estimated or enumerated population, according to the most recent weekly returns of Philadelphia, was 18.15; Brooklyn, 22.8; St. Louis, 8.67; Chicago, 13.23; Baltimore, 16.70; Boston, 16.19; Cincinnati, 13.22; New Orleans, 23.77; Cleveland, 12.19; Richmond, 15.43; Charleston, 43.55; Dayton, 9.83; Lowell, 11.81; Worcester, 13.04; Cambridge, 14.31; Fall River, 20.39; Lawrence, 24.62; Lynn, 9.48; Springfield, 13.24. Monthly returns. San Francisco, 17; Detroit, Mich., 10.56; Selma, 30.43; Wilmington, Del., 17.7. Foreign cities—weekly returns: London, 22.5; Liverpool, 25.1; Birmingham, 24.1; Manchester, 20.9; Glasgow, 27.5; Edinburgh, 29.2; Dundee, 20.3; Dublin, 32.1; Belfast, 34; Cork, 20; Brussels, 23.4; Antwerp, 26.3; Ghent, 22.6; Buda-Pesth, 46.9; Paris, 25.2; Rome, 18.2; Turin, 27; Venice, 29.1; Berlin, 28.5; Munich, 38; Breslau, 37.39; Vienna, 31.5; Copenhagen, 22.59; Stockholm, 23.7; Christiania, 21.87; Amsterdam, 28.5; Rotterdam, 33.1; The Hague, 26; Calcutta, 48.5; Bombay, 44.3; Madras, 43.5; Geneva (with suburbs), 26.5; Basel, 29.3; Bern, 31.7; Warsaw, 35.3; St. Petersburg, 60.87—monthly returns—Trieste, 44.2.



# INDEX.

## A.

Abdomen, complicated wound of, 428.  
 Abdominal pregnancy, case of, 45.  
 Abortion, doubtful, 254; treatment of, 317, 338; hotel in Berlin, 418.  
 Abuse of medical charity, 314, 351, 357, 432.  
 Adams, Dr. J. Q., instrument for hemorrhoids, 436.  
 Aerostatic pressure, relation to life of, 280.  
 Agnew, Dr. D. Hayes, on hernia, 424.  
 Agoraphobia, 335.  
 Air as a cause of disease, 240.  
 Albany ethics, 11, 72.  
 Albuminuria, reflex eccentric, 269.  
 Alcohol for antiseptic spray, 318; consumption of, in France, 100.  
 Allen, Dr. S. J., hypodermic needle, 19.  
 Allin, D. C. M., visceral sarcoma, 116.  
 Alumni Association College Physicians and Surgeons, 198.  
 Amenorrhœa, treatment of, 419.  
 American apparatus, the, 338.  
 American Laryngological Association, 500.  
 American Medical Association, 359, 431, 464, 465, 490, 501, 503; notice of transactions of, 372.  
 American Medical College Association, 359.  
 American Neurological Association, notice of transactions of, 372.  
 American Veterinary College, commencement, 199.  
 Amidon, Dr. —, renal calculi, 135.  
 Analyst bills and preventive legislation in general, 251.  
 Anderson, Dr. McCall, notice of work by, 152.  
 Aneurism treated by Esmarch's bandage, 318.  
 Animal temperature, effects of section of spinal cord on, 52.  
 Ano-pelvic version, 228.  
 Antelexion of uterus following abortion, 383.  
 Anti-vaccination, 359.  
 Antiseptic system, claims of, 94; vinegar, 200.  
 Anus, abscess in the neighborhood of, 361.  
 Apple-shooting, suppression of, 432.  
 Arkansas State Medical Society, 393.  
 Arm, treatment of fracture of, 85.  
 Armor, Dr. S. G., rectal alimentation, 97.  
 Army, medical examination for the, 252; news, 40, 80, 219, 237, 260, 277, 319, 339, 380, 400, 416, 516.  
 Arsenic, dialyzed iron as an antidote for, 19.  
 Arsenical poisoning and dialyzed iron, 80.  
 Arteries, probable cause of cretaceous degeneration of, 320.  
 Arteritis in the course of typhoid fever, 312; in syphilis, 203.  
 Arton, Dr. John H., possible rupture of stomach, 208.  
 Asthenopia, from abnormal interocular distance, 225.  
 Asthma, treatment of, 440.  
 Asylum abuses, 299.  
 Atomizer, a modified, 377.

Auditory epilepsy, contribution to study of, 107.  
 Auditory nerve, injury of, by blow of fur glove, 146.  
 Aura of epilepsy, 143.  
 Aural douche, new method of practising, 248.

## B.

Bacteria, observations on, 279; origin of, in fevers, 319.  
 Bandages, new method of cutting, 494.  
 Barker, Dr. Fordyce, laceration of cervix uteri, 193; rectal alimentation, 57; scarlet fever, 255.  
 Barton, Dr. A. R., labor with elongated cervix, 129.  
 Bathing, diseases of ear from, 343.  
 Battey's operation, 368.  
 Bayles, Dr. G., proprietary medicines, 129, 158.  
 Beard, Dr. Geo. M., symptoms of nervous exhaustion, 335.  
 Bellevue Hospital Medical College, 198; reports, 9, 28, 311.  
 Benjamin, Dr. G. H., pudental hematocele, 109.  
 Bernard, Dr. Claude, death of, 159.  
 Bigelow, Dr. Henry J., rapid lithotripsy with evacuation, 458.  
 Billings, Dr. J. S., and National Medical Library, 219.  
 Billington, Dr. C. E., treatment of diphtheria, 21, 295; on scarlet fever, 221, 245, 256.  
 Binz, Dr. C., notice of work by, 36.  
 Bladder, catarrh of, 42; over-distention of, unsuspected, 426; treatment of atony of, 419.  
 Blood-corpuscles, counting of, 165.  
 Blood, minute structure of red globules of, 200.  
 Body-snatching, 453.  
 Boils, treatment of, 417.  
 Bone, tubercle of, 468, 496.  
 Borax carmine, use of, 97.  
 Both, Dr. C., treatment of phthisis, 389.  
 Bow-legs, mechanical treatment of, 316.  
 Boyd, Dr. J. N., treatment of diphtheria, 379.  
 Bradfield, Dr. J. Naylor, vaginismus *vs.* insanity, 356.  
 Bradley, Dr. E., commitment of the insane, 215.  
 Brain, clinical facts relating to convulsions of, 142; existence of psycho-motor convulsions in, 141; tumors, diagnosis of, 280.  
 Breech presentation, position in labor with, 279.  
 Briddon, Dr. C. K., Carden's amputation, 16; fungus arthritis of knee-joint, 433; visceral sarcoma, 115.  
 Bridge, Dr. H., button removed from trachea three years after its lodgement, 396; pyelitis, 353.  
 Bright's disease, derangement of glycogenic function of the liver as a cause of, 430.  
 British India, population of, 200.  
 Brown, Dr. S. A. (U. S. N.), remedy for poison oak, ivy, and sumach, 320.  
 Broad ligament, cyst of, 385.  
 Bromide of potassium in puerperal convulsions, 428.  
 Bromides and chloral in epilepsy, 177.

Bromidrosis, treatment of, 359.  
 Bronchial casts, expectorated, 433.  
 Bronchitis, fibrinous, 504.  
 Bronchus, shawl-pin in, for thirty-three days—removal, 139.  
 Brown-Séquard, Dr. C. E., lectures on diseases of the nervous system, 41.  
 Bulkley, Dr. L. D., case of unrecognized fatal hemorrhagic small-pox, 325.  
 Bull, Dr. W. T., fracture of femur, 17; post-tracheal abscess, 236; thymol as an antiseptic, 299; wound of abdomen, etc., 428.  
 Burnett, Dr. Charles H., notice of work by, 35.  
 Butter, adulteration of, 31; artificial, 489.  
 Button removed from trachea three years after its lodgment, 396.

## C.

California, report of health board of, 153.  
 Cannabis indica, eruption induced by, 364.  
 Carbolic acid, objections to in treatment of piles, 109.  
 Carbolized ligatures, new use for, 497.  
 Carden's amputation, case of, 16.  
 Cardiac enlargement and respiration, 30.  
 Caro, Dr. S., effects of narcotics in fetus, 435.  
 Carpenter, Dr. Wesley M., treatment of abortion, 338.  
 Carroll, Dr. A. L., retroflexion pessary, 259.  
 Carotid pulse, retardation of, 409.  
 Caruncle of female urethra, 246.  
 Cary, Dr. Charles, symmetrical osteo-mylitis, 109.  
 Caswell, Dr. E. T., fracture of eighth dorsal vertebra, 407.  
 Catgut ligature, reliability of, 16.  
 Centrum ovale, disease of, and paralysis, 85.  
 Cerebellum, glioma of, 234; paralysis and disease of, 81.  
 Cerebral diseases, localization of, 321, 341; localization, 529; localization, contributions to the study of, 249; tumor, 201.  
 Certificates in the daily papers, 55, 72, 93, 99.  
 Cervix uteri, elongated and labor, 129.  
 Cervix uteri, laceration of, as a factor in certain uterine diseases, 193.  
 Cess-pool fever, 303.  
 Chambers Street Hospital (N. Y.), reports of, 428.  
 Chancroid, wash for, 88.  
 Charteris, Dr. M., notice of work by, 371.  
 Chase, Dr. Walter B., laceration of cervix uteri and uterine disease, 193.  
 Children's Hospital of District of Columbia, 200.  
 Chimpanzee, dissection of brain of, 212.  
 Chinese, materia medica among the, 216.  
 Chloral and bromides in epilepsy, 177.  
 Chloral hydrate as antiseptic, 340.  
 Chlorate potash in catarrh of bladder, 420; danger of large doses of, 397.  
 Chloride of potassium in epilepsy, 451.  
 Chloroform, hypodermic injections of, 520; narcosis cured by nitrite of amyl, 420; death from, 180; and dentistry, 201.  
 Cholera infantum, treatment of, 413, 485.  
 Cholera in Japan, 99.  
 Choroiditis metastatic, 144.  
 Church hygiene, 250.  
 Cinchona bases compared with quinia, 266.  
 Claude-Bernard, death of, 269, 300, 360.  
 Clark, Dr. Alonzo, lectures on typhoid fever, 261, 283, 301.  
 Clavicle, dislocation of, 429.  
 Club-foot, treatment of, 487.  
 Cochlea, injury of, from cannonading, 146.  
 Cocoa-butter for fever heat, 455.  
 Cod-liver oil, substitute for, 289.  
 Colitis, traumatic, 15.  
 Columbia Hospital controversy, 132.  
 College Physicians and Surgeons Alumni Association, 358; commencement, 199.

Color blindness, remarks on, 452; blindness in school children, 517.  
 Comegys, Dr. C. G., diarrhea in children, 485.  
 Comegys, Dr. W. H., facial paralysis, 226.  
 Comstock, Dr. L. L., myxomatous tumor of buttocks, 7.  
 Conjunctivitis, hemorrhagic, treatment of, 516.  
 Connecticut Medical Society, 509.  
 Constipation, habitual, in females, 68.  
 Contagion, spread of, by books, 152.  
 Convulsions associated with brain diseases, 143; cause of, 161.  
 Coroner's bill, 192.  
 Cotton-wool in ear diseases, 163; as surgical dressing, 318.  
 Cough, chronic, treatment of, 417.  
 Cox, Sir James, death of, 500.  
 Cremation, 126, 240.  
 Crim, Dr. W. H., treatment of aneurism by Esmarch's bandage, 318.  
 Crura cerebri, disease of, 83.  
 Cystic adenoma of lower jaw, 228.  
 Cystitis, injection of quinine in, 441.  
 Cysto-phosphatic deposits, pathological history of, 270.

## D.

DaCosta, Dr. J. M., cerebral tumor, syphilitic meningitis, 201; on phthisis, 339.  
 Davis, Dr. J. O., rectal alimentation, 159.  
 De Rossett, Dr. M. J., asthenopia from abnormal interocular distance, 225.  
 Dead fingers, 376.  
 Deformities, congenital, case of, 115.  
 Delafield, Dr. F., notice of Pathological Anatomy of, 375.  
 Dermoid cysts, 249.  
 Dessau, Dr. S. Henry, case of poisoning by carbolic acid, 289.  
*Detroit Lancet*, notice of, 160.  
 Diabetes and lesions of the pancreas, 150; a new test for, 227; structural changes in sympathetic nerve in, 408.  
 Dialyzed iron, hypodermic injection of, 480.  
 Diarrhoea, summer, treatment of, 413, 485.  
 Digits mortui, 376.  
 Diphtheria, 505; and defective drainage, 279; diagnosis of, 293; etiology of, 31, 495; treatment of, 21, 50, 61, 62, 98, 136, 157, 293, 377, 379, 396.  
 Disease germs, their origin and nature, 496.  
 Dorran, Dr. Wm. M., fracture of femur in children, 96.  
 Doses, large against small, 419.  
 Dover's powder, a new formula for, 178.  
 Drown, the easiest way to, 417.  
 Druggist, criminal negligence on part of, 359.  
 Duboisia myoporoides, 332.  
 Dialyzed iron, hypodermic injection of, 290.  
 Dyspepsia, treatment of, 70, 443.

## E.

Ear, acute catarrh of middle, 146; polypus in for forty years, 145.  
 Edell, Dr. C., treatment of diphtheria, 50.  
 Education, intervention of physicians in, 507.  
 Elastic bandage in varicose veins, 189.  
 Elbow, conservative surgery of, 134.  
 Electricity in the operating-room, 199.  
 Ely, Dr. Edward T., clinical otology, 144.  
 Endocarditis and typhoid fever, 188; chronic, 354.  
 Eneurisis in children, 500.  
 Ephemeral fever, 302.  
 Epididymitis, treatment of, 9, 206.  
 Epilepsy, curability of, 143; loss of consciousness in, 161; treatment of, 110, 162, 177, 264, 278, 500, 451.  
 Ergot, hypodermic injections of, 519; use of, after labor, 196.



Erichsen, John Eric, notice of Surgery of, 154.  
 Esmarch's bandage, new appliances for, 138.  
 Ether, death from, 19.  
 Ethics, remarks on, 76, 99.  
 Expert testimony, editorial remarks on, 32, 452.  
 Extra-uterine pregnancy, normal accouchement during, 150.

## F.

Facial paralysis, treatment of, 51, 226.  
 Fairfield, Francis Gerry, a new high-power lens, 60.  
 Fallopian pregnancy, with specimen, 334.  
 Farquharson, Dr. R., notice of work by, 36.  
 Female right to stays, 432; patients, our relations to our, 313.  
 Femoral vein, thrombosis of, 155.  
 Femur, division of tendo-Achillis in fracture of, 269; fracture of shaft of, in children, 1; fracture of, in children, 95; treatment of fracture of, 9, 17, 87, 181, 349.  
 Fibroid, post-uterine, case of, 47.  
 Field, Dr. H. M., bromide of potassium in puerperal convulsions, 428.  
 Flint, Dr. Austin, rectal alimentation, 56.  
 Flower and fruit mission, 392.  
 Focal diseases of spinal cord, 422.  
 Fœtus, brainless, 433.  
 Follicular pharyngitis, contagiousness of, 298.  
 Forceps, a new obstetrical, 224.  
 Foster, Dr. Frank P., hysteria, 117.  
 Fowler, Dr. E. P., liberalism in homœopathy, 179.  
 France, population of, 20.  
 Fractures, American treatment of, 241; oblong bones, shortening in, 464, 472.  
 French, Dr. Geo. F., rectal speculum, 437.  
 Friendly professional visits, 358.  
 Fuller, Dr. Robert M., dose dispensing simplified, 184.  
 Furuncles, treatment of, 417.

## G.

Galvano-caustic écraseur, 515.  
 Gangrene, spontaneous, and amputation, 15.  
 Gardner, Dr. R. W., hypophosphite of zinc, 356.  
 Gelsemium, poisoning by small doses of, 111.  
 Genital irritation and reflex phenomena, 274.  
 German universities, cost of, 20.  
 Gibney, Dr. V. P., talipes calcaneus, 235; ultimate results of excision of hip-joint, 174, 219, 276.  
 Glass, infrangible, danger of explosion of, 360.  
 Glosso-labial laryngeal paralysis, 198.  
 Glottis, spasm, without recognized cause, 232.  
 Glycerine in piles, 409.  
 Glycosuria and diabetes, 348.  
 Glycosuric reagent, a new, 227.  
 Goitre, etiology of, 70; treatment by interstitial injections, 150; treatment of, 565.  
 Gonorrhœa complicated with endocarditis, 188; nature of, 381; treatment of, 188, 441.  
 Gonorrhœal epididymitis, 449.  
 Goodell, Dr. W., caruncle of female urethra, 246; cystitis in female, 66.  
 Gouty habit and nervous diseases, 111.  
 Gouley, Dr. J. W. S., stricture of urethra, 475.  
 Griffiths, Dr. Handel, death of, 99.  
 Gross, Dr. S. W., stricture of urethra, 461.  
 Gynæcological statistics, 133.

## H.

Hæmorrhoids, injection of carbolic acid in, 168, 409.  
 Hæmatoxylin, use of, 97.  
 Hall, Dr. W. E., death of, 516.

Hamilton, Dr. Allan McLane, auditory epilepsy, 107.  
 Hamilton, Dr. F. H., American apparatus, 359; fracture of humerus, 85; fracture of shaft of femur in children, 1; treatment of fracture of femur, 181; notice of work by, 153.  
 Hammond, case of Ex-Surgeon General, 191.  
 Hanks, Dr. H. T., atomizers for spraying the throat, 260; laceration of cervix uteri, 195.  
 Hand, best treatment for mutilation of, 420.  
 Harrison, Mr. Reginald, complimentary dinner to, 360.  
 Harris, Dr. P. A., intestinal obstruction, 149.  
 Harvey, Dr. P. F., rapid dilatation of female urethra for vesical irritability, 387.  
 Hawes, Dr. Jesse, death from vaccination, 138.  
 Head, injuries of the, 290.  
 Health Board, the, and the nuisances, 593, 432, 460.  
 Heart, abscess of, 229; clots in, 350.  
 Heineman, Dr. H. N., aneurism of left ventricle, 594.  
 Helminthology, 279.  
 Hematoma in Douglas's pouch, 67.  
 Hemiplegia and diseases of cerebellum, 43.  
 Hemorrhoids, treatment of, 436.  
 Hepatic cyst, case of, 383.  
 Hepatitis following pelvic cellulitis, 352.  
 Hermaphroditism in the male, 450.  
 Hernia of semi-circular line, 111; symptoms of irreducible, 424; treatment of, 486; treated by ergotine, 518.  
 Henel, Dr. Franz Jr., modified atomizer, 377.  
 Hiccough, treatment of, 500.  
 Hicks, Dr. J. L., hollow conical sound, 437.  
 Higher medical culture, 152.  
 Hindus, materia medica of the, 519.  
 Hip-joint, excision of, 173; ultimate results of excision of, 218, 237, 276.  
 Hip, remarkable repair after exsection of, 355.  
 Hirtz, death of, 360.  
 Holden, Dr. Edgar, nitrite of amyl in dilated heart, with aortic regurgitation, 524; practical pneumatometer, 438.  
 Holden, Dr. L., notice of work by, 371.  
 Homœopath, consultation with, 510.  
 Homœopathy, liberalism in, 132, 140, 178, 212, 464, 467, 470.  
 Horseflesh in France, 20.  
 Hospital construction, 113, 154, 252; stewards and their pay, 12, 120.  
 Houses, sanitary condition of, 400.  
 Humerus, treatment of fracture of, 85.  
 Hunt, Dr. E. M., antecedent treatment of those exposed to zymotic diseases, 186.  
 Hurd, Dr. E. P., stomatitis materna, 449.  
 Hyde, Dr. J. Nevins, vesicular eruption induced by the ingestion of cannabis indica, 364.  
 Hydrocele, operation for radical cure, 88; visceral and parietal, 312.  
 Hydrophobia, case of, 90, 419, 420; question, the, 410.  
 Hygiene, section on, 555.  
 Hypodermic needle, how to introduce, 19.  
 Hypophosphite of zinc, 356.  
 Hysteria, remarks on, 117.

## I.

Ichthyosis of tongue, 168.  
 Idiotic Asylum Association, 439.  
 Ileum, portion of, discharged by rectum, 505.  
 Ill, Dr. Edward J., shawl-pin in left bronchus and tracheotomy, 129.  
 Illinois, medical education in, 480.  
 Inebriety, results of, 326.  
 Infant mortality, 259.  
 Infantile diarrhœa, treatment of, 413, 485.  
 Infants, large, 238.  
 Infectious diseases, dissemination of, by medical men, 371.

Insane asylum building in the U. S., 170, 171, 230; asylum management, extravagance of, 91, 114, 333; commitment of, 151, 190, 215, 257, 277, 454; in Connecticut poorhouses, 430.

Insomnia, treatment of, 69.

Intercostal neuralgia, treatment of, 28.

Intermittent fever, chronic treatment of, 507.

Intertrigo, treatment of, in children, 517.

Intestinal obstruction, treatment of, 149.

Intestines, wound and protrusion; new method of reduction, 106.

Inter-pleural processes, physical signs of, 401.

Intra-laryngeal growths, 101.

Intra-uterine fibroids, 135.

Invagination, treatment by electricity, 517.

Iodine, absorption of tincture of, by skin, 439.

*Iowa Cutlin*, notice of, 340.

Ivy, remedy for poison of, 320.

## J.

Jaborandi, alkaloid, effects of, 451.

Jacobi, Dr. A., laceration of cervix uteri, 196.

Jacobi, Dr. M. P., congenital deformities, 115; notice of work by, 14.

James, Prosser, notice of work by, 372.

Janeway, Dr. E. G., glosso-labial laryngeal paralysis, 398; thrombosis of femoral vein, 155; of ovarian vein, 154.

Jaw, myeloplastic tumor of upper, 253.

Jenks, Dr. E. W., sudden death in puerperal women, 469.

Johns Hopkins Hospital, 507.

Johnson, Dr. Lawrence, Fallopian pregnancy, with specimen, 334.

Joint disease, etiology and pathology of, 348; mechanical treatment of, 24, 38.

## K.

Kelsey, Dr. W. L., vesico-vaginal fistula and calculus in vagina, 454.

Kemp, Dr. W. M., hypodermic injection of dialyzed iron, 480.

Keyes, Dr. E. L., on lithotrite, 388; lithotritry, 394; stricture of urethra, 477.

Kidney, anatomy of, 487; congenital absence of the, 520; pathology of granular, 229; syphiloma of, 169.

Knee-joint, excision of, 70; fungous arthritis of, 433.

## L.

Labor, case of, with elongated cervix, 129.

Lactic acid as an hypnotic, 169.

Laparo-elytrotomy as a substitute for Cæsarean section, 256, 284.

Laryngeal phthisis, case of, 135.

Laryngitis and co d., 430.

Lateral rotary curvature of spine, 598.

Leaming, Dr. J. R., physical signs of inter-pleural processes, 401.

Leeches, preservation of, 220.

Lefferts, Dr. Geo. M., intra-laryngeal growths, 101.

Leg, sarcoma of calf of, 254.

Legs, unequal length of, 188.

Lens, a new high-power, 60.

Lenses, congenital displacement of both, 220.

Lente, Dr. F. D., vomiting in pregnancy, 484.

Lenticular ganglion, 487.

Leucocytes, diapedesis of, 31.

Leucocythemia, early detection of, 165.

Leukæmia, early detection of, 165.

Lingual artery, ligation of, 434.

Lithotrite, an improvement in the jaws of, 388.

Lithotritry, remarks on, 332, 394.

Little, Dr. James L., urinary lithotomy, 91.

Liver, abscess of, treatment of, 70, 198, 308; sympathy of, with uterus, 493.

Liver, case of cancer of, 511.

Loomis, Dr. A. L., pelvic cellulitis, 352.

Lower extremity, congenital deformity of, 408.

Lymphadenoma malignum, 227.

Lying-in Hospital at Washington, 25.

## M.

Malpractice suits, 315.

Mammary abscess, prevention of, 440.

Mann, Dr. E. C., premature mental decay, 326.

Martin, Dr. H. A., on vaccination, 63, 504.

Marx, Dr. H., death of, 9.

Mason, Dr. E., extirpation maxilla sup., 352.

Massachusetts State Medical Society, 498.

Massage in joint diseases, 38.

Maxilla, superior, extirpation of, 352.

May, Dr. H. C., treatment of abortion, 318.

McBride, Dr. T. A., *digitus mortui*, 376.

Mediastinum, tumor of, 511.

Medical advertising, 96, 119, 192; bill, the new, 213, 273, 278; bills, itemizing, 160; certificates in daily papers, 192; institutions in the United States, 112; journals, how to make contributions to, available, 10; jurisprudence, 508; night service, 419; provident system, 377; student, death of, from small-pox, 420.

*Medical Register*, N. Y., notice of, 490.

Medical Society County of New York, meetings of, 38, 119, 316, 454.

Medical Society of State of New York, 71, 72, 75, 193.

Medicine, legal regulations for the practice of, 488, 501.

Medicines, palatable form of, 184.

Medullated nerve-fibres, markings of, 118.

Melæna vera neonatorum, 451.

Menstruation, rest during, 14.

Mental decay, causes of, premature, 323.

Metric system in the Marine Hospital Service, 417; in Pennsylvania, 457; in medicine, 504.

Metrorrhagia, treatment of, 419.

Mice, action of hemlock seeds on, 20.

Michigan, medical journals in, 160.

*Michigan Medical News*, notice of, 160.

Microphone in diagnosis and other matters, 490.

Milk adulteration, a novel, 438; why it sours, 79; typhoid in, 439.

Miller, Dr. M. N., staining fluids for microscopic work, 97.

Morbus coxarius, 254.

Montenegro, medical affairs in, 240.

Moses, Dr. M. J., death of, 358.

Mouth-gag, a new, 18.

Movement, disorder of, 44.

Muscular irritability and waste affected by rest, 161.

Musculus choroideæ, 209.

Mundé, Dr. Paul F., treatment of diphtheria, 137.

Mustard-baths in the pneumonia of children, 197.

Murdock, Dr. G. W., how to suppress quackery, 119.

Mutual Autopsy Society, 420.

Myelitis of anterior horns spinal cord, 421.

Myxomatous tumor of buttocks, 7.

## N.

Narcotics, effects of, on fœtus, 435.

Nashville, report of health board of, 153.

National Health Bureau, 392, 467.

National Medical Library, The, 211, 219, 220.

National quarantine regulations, 271.

Neftel, Dr. W. B., catarrh of stomach, 443.

Nervous exhaustion, symptoms of, 335.

Nervous system, lectures on diseases of, 8, 141, 321, 341, 421, 481.



Neurasthenia, remarks on, 335.  
 Neurotics, report of a committee on, 177.  
 New Hampshire State Medical Society, 508.  
 New Jersey, Medical Society of State of, 455.  
 New school bill, 333.  
 New York Academy of Medicine, reports, 38, 56, 213, 334, 435.  
 New York College of Veterinary Surgeons, commencement of, 197.  
 New York City Idiot Asylum, reports, 274.  
 New York Hospital, reports, 87; remarks on, 113; out-patient department, and abuse of medical charity, 250, 292.  
 New York Medical Journal Association, 117, 173, 197.  
 New York Neurological Society, reports, 118, 376.  
 New York Orthopaedic Dispensary, reports of, 463.  
 New York Pathological Society, 511; reports of, 15, 115, 134, 154, 232, 253, 352, 394, 433.  
 New York Therapeutical Society reports, 177.  
 Newton, Dr. W. K., cinchona bases combined with quinia, 266.  
 Nichols, Dr. C. H., commitment of the insane, 454.  
 Nipples, sore, treatment of, 517.  
 Nitrite of amyl in dilated heart, with aortic regurgitation, 324; in chloroform narcosis, 420.  
 Noma, moving bodies in, 131.  
*North Carolina Medical Journal*, notice of, 179.  
 Nostrils, bad effects of snuffing water up the, 146.  
 Nursery, poison in the, 371.  
 Nursing, notice of work on, 372.

## O.

Obstetric Section, American Medical Association, 490;  
 N. Y. Academy of Medicine, meeting, 133, 213, 298, 396.  
 O'Connell, Dr. P., vaccination, 216.  
 Ocular and orbital tumors, 376.  
 Opium-eater, a baby, 518.  
 Opium habitue, experiences of, 399.  
 Opium-poisoning, treatment of, 280.  
 Optic thalami, disease of, 84.  
 Orth, Dr. J., notice of work by, 373.  
 Osler, Dr. Wm., stenosis of pulmonary orifice, 233; notice of Pathological Reports by, 375.  
 Osteomyelitis, symmetrical, 169.  
 Otis, Dr. F. N., on gonorrhœa, 381, 441; stricture of urethra, 477.  
 Otitis externa diphtheritica, 210.  
 Ott, Dr. Isaac, notice of work by, 273.  
 Out-patient department of New York Hospital and abuse of medical charity, 314.  
 Ovarian vein, thrombosis of, 154.  
 Ovariectomy, the first, 379; remarks on, 227.  
 Overcrowded profession, the, 200.  
 Oxalate of cerium in chronic cough, 417.  
 Oxyures vermiculares, treatment of, 454.  
 Ototomy, 490, 494.

## P.

Packard, Dr. Charles W., thoracentesis, 3.  
 Pallen, Dr. M. A., laparo-elytrotomy, 284.  
 Palmar fascia, contraction of, 451.  
 Pancreas, lesions of, and diabetes, 150.  
 Pao-paireira, physiological action of, 39.  
 Paracentesis of pericardium, 349.  
 Paralysis, causes of, 81, 82, 161.  
 Parks, public, on, 252.  
 Paris, turbulent students in, 20.  
 Patella, treatment of fracture of, 87, 367.  
 Pauper lunatics in England, 292.  
 Peaslee, Dr. E. R., on hysteria, 117; rectal alimentation, 58; death of, 78, 139, 180, 193, 240.

Pennsylvania Hospital, reports, 330.  
 Pennsylvania Medical Society, 454, 456.  
 Perineal lithotripsy, 395.  
 Perineorrhaphy, new clamp for, 492.  
 Peripachymeningitis, rare case of, 64.  
 Perityphilitis, treatment of, 49, 55, 89.  
 Peri-uterine cellulitis, 45.  
 Pernicious anemia, case of supposed, 28.  
 Pessary, retroflexion, 259.  
 Peters, Dr. J. C., address by, 234; ranunculaceae, 39.  
 Pharyngitis, treatment of chronic, 516.  
 Philadelphia medical commencements, 238.  
 Phthisis, clinical remarks on, 330; cold sponging in, 440; treatment of, 389; in Victoria, 417; facts concerning, 504.  
 Picro-carmine, use of, 98.  
 Piffard, Dr. H. G., glycosuric reagent, 227; pulsatilla, 204.  
 Piles, treatment of, 168, 409, 436.  
 Pill saturates, 184.  
 Pilocarpia, uses of, 451.  
 Pityriasis, treatment of, 518.  
 Placenta prævia without hemorrhage, 214; removal of adherent, 397; retained, treatment of, 134.  
 Plant, Dr. W. T., death following vaccination, 79.  
 Plastic surgery, cases in, 495.  
 Pleurisy of apex, 210; and aspiration, 9.  
 Pleuritic effusion, treatment of, 238.  
 Pneumatometer, a practical, 438.  
 Pneumogastric and sympathetic, neuroses of, 504.  
 Pneumonia, caseous, and tuberculosis, 30; treatment of, 29.  
 Poison oak, remedy for, 320.  
 Polish surgeons, hanging of, 260, 220.  
 Politzer's method of inflation modified, 208.  
 Ponce de Leon, Dr. Juan B., death of, 19.  
 Pons varolii, pressure on, 82; symptoms of disease of, 41.  
 Pooley, Dr. T. R., ocular and orbital tumors, 376.  
 Poore, Dr. C. T., excision of hip-joint, 176.  
 Post, Dr. A. C., intra-uterine fibroid, 135.  
 Post, Dr. George E., reduction of dislocation of thigh, six months' standing, 366; congenital deformity of lower extremity, 408.  
 Post-partum hemorrhage, 440.  
 Post-tracheal abscess, 236.  
 Potassium, chloride of, in epilepsy, 177.  
 Pott's disease, report on, 495.  
 Pregnancy, and chronic heart disease, 69; treatment of, vomiting of, 484.  
 Preliminary study and medical education, 456.  
 Prescriptions, mixed, 89.  
 Preventive medicine in medical practice, 53.  
 Prize essays, remarks on, 192.  
 Professional overwork, 114.  
 Progressive pernicious anemia, 269.  
 Proprietary medicines, 120, 139, 158.  
 Prostitution in France, 20.  
 Prout, Dr. J. S., intra-venous injection of milk, 378.  
 Pruritus vulvæ, treatment of, 359.  
 Prussia, lunatics in, 440.  
 Pudendal hematocoele in virgins, 109.  
 Puerperal convulsions, treatment of, 428; metrorrhagia, 419; women, causes of sudden death in, 469.  
 Pulsatilla, remarks on, 100, 204.  
 Purring thrill, production of, 354.  
 Putzel, Dr. L., rare case of peripachymeningitis, 64.  
 Pyelitis, colon and pelvis communicating, 353.

## Q.

Quackery, how to suppress, 11, 59, 93, 120.  
 Quarantine, intelligent and efficient, 54.  
 Quinetum and its therapeutical value, 312.  
 Quinine and cinchonidia, 18.  
 Quinsy sore-throat aborted by opium, 298.

## R

- Radius, treatment of fracture of, 87, 497.  
 Ranunculaceæ, therapeutic uses of, 19.  
 Rapid lithotripsy with cyanation, 478.  
 Rectal alimentation, 56, 97, 158, 270, 311.  
 Rectum, abscess in the neighborhood of, 561; amputation of, 210; cases of stricture of, 121; hospital for diseases of, 60.  
 Recurrent naso-pharyngeal polypus, 89.  
 Red stockings, blood-poisoning from, 360.  
 Renal calculus, cases of, 135.  
 Respiratory passages, carbonate of soda in nervous affections of, 189.  
 Retina, anæmia of, 143.  
 Revulsive, a new, 387.  
 Rheumatism, treatment of, 520.  
 Richardson, Dr. Joseph G., leukaemia, 165.  
 Ringworm in public institutions, 503.  
 Ripley, Dr. John H., tracheotomy in laryngeal disease, 156.  
 Roberts, Dr. Samuel W., on spermatorrhœa, 238.  
 Robinson, Dr. Beverley, dilated bronchii, the, 395; endocarditis, 354; fibro-cystic goitre, 433; spasm of glottis without apparent cause, 232.  
 Rockwell, Dr. A. D., electricity in epilepsy, 264.  
 Rodman, Dr. W. B., diphtheria, 61; treatment of diphtheria, 137; trephining without lesion of skull or scalp, 310.  
 Roosa, Dr. D. B. St. John, clinical otology, 144.  
 Rotary lateral curvature of the spine, 111.  
 Roumania, position of parturient women in, 419.  
 Rowing men, health of, 159.  
 Royal Victoria Dispensary, notice of, 400.  
 Russian bath and ear disease, 347.

## S

- Salicylic acid, danger of, 439.  
 Sands, Dr. H. B., perityphlitis, 55.  
 Sanitary inspection of schools, 369.  
 Sanitary Protection Association, 240.  
 Saratoga as a remedial watering-place, 512.  
 Sarcoma recurring in stump, 88; of testicle, 89.  
 Sass, Dr. Luis F., galvano-caustic écraseur, 515.  
 Satterthwaite, Dr. T. E., glioma of cerebellum, 234.  
 Saw, lever excision, 19.  
 Saxony, population of, 359.  
 Sayre, Dr. L. A., morbus coxarius, 175, 237, 254, 296, 355; reflex irritation, 355; notice of work by, 374.  
 Sayre, Dr. Louis H., colitis, 15.  
 Scarlet fever, remarks on, 221, 245, 255, 380.  
 Schweig, Dr. G. M., how to suppress quackery, 59, 120.  
 Section Theory and Practice, N. Y. A. M., 293, 413.  
 Seguin, Dr. E. C., localization of spinal and cerebral diseases, 321, 341, 421, 481; tumor of thalamus opticus, 125; treatment of epilepsy, 177.  
 Sewer gas in dwelling-houses, 406.  
 Sexual exhaustion, remarks on, 110; organs and cerebellum, 81.  
 Sexton, Dr. Samuel, cotton-wool in ear diseases, 168; diseases of ear from bathing, 343.  
 Shad, so called trichinae in, 370.  
 Shaw, Dr. J. C., markings of medullated nerve-fibres, 118.  
 Sherwell, Dr. S., substitute for cod-liver oil, 289.  
 Short-sightedness in different countries, 340.  
 Shoulder-joint, amputation at, 116.  
 Shove, Dr. Seth, death of, 220, 358.  
 Shradz, Dr. George F., editorial articles by, 10, 32, 54, 71, 72, 93, 114, 132, 133, 151, 152, 190, 191, 192, 211, 212, 250, 252, 271, 291, 292, 313, 314, 333, 351, 369, 392, 431, 432, 452, 453, 464, 489, 490, 501.  
 Skin, absorption of tincture of iodine by, 49; vegetable parasites in the, 487.  
 Skull, notice of work on the morphology of, 391.

- Sleeplessness and its treatment, 69.  
 Small-pox, case of unrecognized fatal, 525; means of preventing pitting in, 120.  
 Smart, Dr. C., emenation practically considered, 126.  
 Smith, Dr. Francis Gurney, death of, 300.  
 Smith, Dr. H. H., tubercle of bone, 468.  
 Smith, Dr. Heywood, notice of work by, 371.  
 Smith, Dr. J. Lewis, infantile diarrhœa in summer, 413; treatment of diphtheria, 293.  
 Smith, Dr. Stephen, antiseptic system, 94.  
 Sound, corical, of Hicks, 437.  
 Spermatozoa, structure of, in man, 280.  
 Spermatorrhœa, shall patients marry with? 238.  
 Spina bifida, treatment of, 110.  
 Spinal cord, physiology and anatomy of, 321; systemic lesions of, 341.  
 Spinal and cerebral diseases, localization of, 421.  
 Spinal cord, focal lesions of, 422.  
 Spinal diseases, localization of, 321, 341, 421, 481; priority of method of treating by suspension, 360; and curvature, notice of work on, 374; suspension in, 180, 495.  
 Spleen, excision of, 169, 209.  
 Spontaneous generation, 231, 272.  
 Spray apparatus, bursting of, 359.  
 Sprue, treatment of, 449.  
 Squibb, Dr. E. R., proprietary medicines, 138.  
 Staining fluids for microscopic work, 97.  
 Staples, Dr. Franklin, thoracentesis, 147.  
 State medicine, 466.  
 State Society, next meeting of, 34.  
 Steele, Dr. J. E., death of, 500.  
 Stein, Dr. Alex. W., over-distention of bladder, 426.  
 Stimson, Dr. L. A., extirpation of tongue, 434; myeloplasmic tumor of upper jaw, 253; perineal lithotripsy, 395; sarcoma of calf of leg, 254.  
 St. Catherine's Hospital, Brooklyn, E. D., 320.  
 St. Mary's Free Hospital for Children, 340.  
 Streets, filthy, in New York, 431.  
 Stricker, S., notice of work by, 373.  
 Stricture, traumatic, 90.  
 Stokes, Dr. W., death of, 140.  
 Stomach, catarrh of, 443; possible rupture of, 208.  
 Stomatitis materna, treatment of, 449.  
 Stone, statistics for operation of, 340.  
 Storrs, Dr. M., new method of reducing protrusion of intestine, 106.  
 Strumous disease, gynecological origin of, 492.  
 Sublingual duct, calculus of, 159.  
 Sudorific, an efficient, 451.  
 Surgical Section N. Y. Academy of Medicine, 94, 296, 376.  
 Syme's amputation, case of, 90.  
 Sympathetic nerve, changes in from pseudo-muscular hypertrophy, 469.  
 Syphilis, constitutional, a sign of, 29; and public health, 412.  
 Syphilitic meningitis, 203.  
 Syphiloma of kidney, 169.

## T

- Tablet, saturates, 184; triturates, 184.  
 Tablets, soluble, 184.  
 Talipes calcaneus, with arrest of development, 235.  
 Talking machine, the, 278.  
 Tansley, Dr. J. Oseroft, Politzer's method, 208.  
 Tapeworm, and anomalous symptoms, 235; in child two and a half years old, 134; rapid expulsion of, 420.  
 Tausky, Dr. Rudolph, abscess of liver, opened artificially, 408.  
 Taylor, Dr. C. Fayette, excision of hip-joint, 173.  
 Tea, cultivation of, in India, 219.  
 Telegraphic disease, the, 420.  
 Telephonic auscultation, 180.  
 Temperature and sponge-bath, 29.



Tennessee State Medical Society, 340.  
 Tetanus, treatment of, 340, 430.  
 Thalamus opticus, tumor of, 135.  
 Therapeutical committees in State societies, 453, 455.  
 Therapeutics, laws of, 100.  
 Thermo-cautery and ether, 359.  
 Thigh, dislocation of, six months' standing, reduction of, 366; supra-condyloid, amputation of, 336.  
 Thomas, Dr. T. Gaillard, abdominal pregnancy, etc., 45; hepatic cyst, 333; intra-venous injection of milk, 337; laparo-elytrotomy, 256.  
 Thoracentesis, remarks on operation of, 3, 147.  
 Throat, atomizers for spraying the, 260; foreign bodies in throat, prompt and simple removal of, 160.  
 Thrush, local treatment of, 509.  
 Thudicum, Dr. J. L. W., notice of work by, 193.  
 Thymol as an antiseptic, 299.  
 Thyroid gland, extirpation of, 496.  
 Tibia, excision of, diaphysis of, 494.  
 Tinea-favosa, treatment of, 518.  
 Tongue, extirpation of, 434; ichthyosis of, 168.  
 Tonsillitis, follicular, and herpes, 197.  
 Tourtellott, Dr. L. A., commitment of insane, 259.  
 Tracheotomy in diphtheritic croup, 368; in France, 200; in laryngeal disease, 156; for shawl-pin in bronchus, 129; without tubes, 494.  
 Transactions of College of Physicians of Philadelphia, 374.  
 Transactions of Kentucky State Society, 374.  
 Transfusion by intra-venous injection of milk, 337, 378.  
 Treganowan, Thomas, death of, 60.  
 Trephining, for cerebral extravasation without lesion of skull or scalp, 310.  
 Trichina, the so-called, in shad, 370.  
 Triplets, case of, 20.  
 Twins in France, 237.  
 Typho-malarial fever, 303.  
 Typhoid fever, lectures on, 261, 283, 301; in Russia, 334; spontaneous gangrene in course of, 248; treatment of, 520.  
 Typhus in Russia, 359.

## U.

Umbilicus, fatal hemorrhage from, 298.  
 Undertakers and death premiums, 260.  
 University of Pennsylvania, reports of, 66.  
 University Medical College, commencement of, 160; dinner of alumni of, 179.  
 Uniform medical examination, 199.  
 Urethra, dilatation of by urine, 30; rapid dilatation of female, for irritability, 387.  
 Urethral speculum, 437.  
 Urethritis caused by the administration of arsenic, 51.  
 Urinary calculus, 94; fistula in ante-scrotal region, 286.  
 Urine, notice of work on pathology of, 493.  
 Uterine hemorrhage from nervous shock, 396.  
 Uterus, fibroids of, treatment of, 493; hour-glass contraction of, 491; sympathy of liver with, 493.

## V.

Vaccination, alleged death from, 80, 79, 137; remarks on, 63, 215; true animal, 304.

Vagina, calculus in the vagina, 454; does cancer ever commence in the, 236.  
 Vaginismus *vs.* insanity, 356.  
 Valentine's meat juice, constitution of, 100.  
 Van Buren, Dr. W. H., abscess in the neighborhood of the rectum and anus, 361; American treatment of fractures, 241.  
 Varicose veins, treatment of, 189.  
 Variola, means of preventing pitting in, 420.  
 Vedder, Dr. Maus R., obstetrical forceps, 224.  
 Vertebra, fracture of, 8; dorsal, 457.  
 Vicarious menstruation, 213.  
 Vienna, general hospital in, 239.  
 Visceral sarcoma, case of, 115.  
 Vomiting in pregnancy, 518; treatment of, 409.  
 Vulva, treatment of chronic ulcers of, 418.

## W.

Wade, Dr. DeWitt C., alcohol for antiseptic spray, 318.  
 Wales, Dr. Philip S., stricture of rectum, 121.  
 War, medical and surgical history of, 11.  
 Ward, Dr. J. M., contagiousness of scarlet fever, 380; position in breech presentation, 279.  
 Watson, Dr. B. A., lever excision saw, 39.  
 Weber, Dr. Leonard, hot mustard-baths in pneumonia of children, 197; perityphlitis, 49.  
 Weir, Dr. R. F., Esmarch's bandage, 138; a new mouth-gag, 18; stricture of urethra, 478; urinary fistula in ante-scrotal region, 286.  
 Well water, contaminated, and typhoid fever, 172.  
 Whellock, Dr. W. E., hermaphroditism in the male, 450.  
 Whiting, Dr. L. E., Saratoga as a remedial watering-place, 512.  
 Whooping-cough, treatment of, 500.  
 Willard, Dr. C. E., treatment of diphtheria, 62.  
 Williams, Dr. G. O., materia medica among Chinese, 218.  
 Wisconsin State Medical Society, notice of transactions of, 37.  
 Wood oil, 419.  
 Wool, cotton, in ear diseases, 168.  
 Wright, Gen. J. J. B. (U. S. A.), death of, 480.  
 Wrist-joint, treatment of fractures of, 497.  
 Writers' cramp, 350, 519.  
 Wyeth, Dr. John A., treatment of fracture of patella, 367.

## Y.

Yale, Dr. L. M., mechanical treatment of chronic joint disease, 24.  
 Yandell, Prof. D. W., visit of, 278.  
 Yellow fever, treatment of, 483.

## Z.

Ziemssen, vol. xv., notice of, 13.  
 Zymotic diseases, antecedent treatment of those disposed to, 186.





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## Original Lectures.

### ON CONJUNCTIVITIS.

A CLINICAL LECTURE DELIVERED AT THE UNIVERSITY  
MEDICAL COLLEGE IN THE CITY OF NEW YORK,  
JAN. 31, 1878.

By D. B. ST. JOHN ROOSA, M.D.,

PROFESSOR OF OPHTHALMOLOGY.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—I will make this case before us a text for a few remarks upon *conjunctivitis*. The history gives us very little information as to the causes of the attack of inflammation of the conjunctiva. There was no exposure to dust, or cold, or wind, or any excessive use of the eyes; nor was there, so far as we can learn, any contact with other inflamed eyes. This woman spent most of one day ironing clothes. She has never had a previous attack of this disease. On the day previous to that spent in ironing, she read considerably, however. That was four days ago, and she now has inflammation of the conjunctiva, which has been treated, at the Manhattan Hospital, by the use of astringents and the sulphate of atropia.

I happen to know that the patient has a chronic disease at the back part of the eye, for she was under my care for choroiditis at the Eye and Ear Infirmary some fourteen years ago. This condition renders her rather more liable to conjunctival inflammation than she would be were the back part of the eye sound. Such is my text, brief though it may be.

*Conjunctivitis*—Inflammation of the Conjunctiva. Conjunctiva, from two words, which mean to join together—the mucous membrane which joins the lids with the globe of the eye. *Conjunctivitis* is an affection which every practitioner of medicine is bound to know how to treat.

It is an affection which must not be confused with *iritis*, or rather, *iritis* should not be confounded with it. It occurs as frequently as pneumonia or pleurisy, and it may and does destroy eyes, and thus, sometimes, renders the state of the man or woman affected much more mournful than if the victim had been cut off by either of the inflammations of the chest.

*Conjunctivitis* is divided into three general varieties. Such divisions are somewhat arbitrary, however; you cannot always distinguish one from the other, any more than the United States can be distinguished from Mexico as we pass over the artificial boundaries between the two countries. In many cases, then, you will not be able to make the divisions, and, in others, they can be made with considerable satisfaction.

1. *Catarrhal Conjunctivitis*.—Under favorable conditions, this is a self-limited disease, as much so as measles, or scarlet fever, or pneumonia.

Its chief symptoms are: hyperæmia of the conjunctiva, the network of blood-vessels is injected, not particularly marked towards the ciliary region, but there is a general vascularity of the membrane. A pure catarrhal conjunctivitis is not attended by great lachrymation or photophobia. There is no sluggishness

of the pupil, and there is no deep-seated pain. The other characteristic symptom is increased secretion—hence the name catarrhal.

The patient's subjective symptoms are not important to the diagnosis, but they may be roughly stated as a feeling as if sand was in the eye, and a blurring of the sight. The sensation of roughness is due to the pressure of the enlarged blood-vessels, and the blurred vision to the presence of mucus and tears upon the cornea. All that this form of conjunctivitis requires in way of treatment, in many cases, is to keep the eyes clean. This can be readily done by bathing them in pure cold water. The patient should also wear a pair of protecting glasses—not goggles, which will keep the eyes free from dust and everything that may excite inflammation of the conjunctiva.

But a simple catarrhal conjunctivitis occurring in delicate persons, especially children, amid bad hygienic surroundings, and among persons who are not noted for habits of cleanliness, may run into phlyctenular conjunctivitis almost before you are aware of it. Then you will see, most commonly near the margin of the cornea, either little yellowish red elevations mounted by a vesicle, or a small ulcer, which has been formed by the rupture of a previous vesicle.

This form of conjunctivitis, at its outset, requires a local anodyne—atropia—and a great deal of general care; but to-day I only desire to speak of the three forms of pure conjunctivitis, catarrhal, blennorrhæal, and purulent. Again, catarrhal conjunctivitis occurs in persons who are exposed to any continued depressing influences, or who are obliged to work in places where they are exposed to mechanical irritants which are liable to excite new inflammatory action; and under such circumstances the disease may advance to the chronic stage, or go on to blennorrhæa. For example, catarrhal conjunctivitis occurring in a student who continues under the depressing influence of the dissecting-room, who goes on with his studying and note-taking, who continues to sit in the bad air of the lecture-room, is very apt to advance to a blennorrhæa, or, what is more likely, become a *chronic catarrhal conjunctivitis*. A mechanic with acute conjunctivitis will soon have a blennorrhæa, or a chronic inflammation, if he persists in his work.

With reference to *treatment*, it is perhaps safer to tell you that it is best to treat a simple catarrhal conjunctivitis by using locally some mild astringent, like the sulphate of alum or zinc, in solution of about two grains to the ounce of water, as well as washing the eyes with cold water and placing the patient under favorable hygienic influences. Besides this, cold water may be freely used on the closed lids, as a douche, or by means of small bits of cloth. It is well, however, for you to remember that the disease, like many others, has a marked tendency to get well, and that you are not to attack it with blisters, or nitrate of silver, or to place the patient in a dark room, and so forth, as though it were a case which demanded the most vigorous and heroic measures at your command.

But, let us suppose that the disease goes on to the next stage—to blennorrhæal conjunctivitis—in which we have to deal with something more than mere hyperæmia, with very decided increase in the natural secretion.

There is now a positive increase in the natural secretion of mucus; with this there is mingled more or less pus, especially at the corners of the eyes. There is also slight engorgement of the lids, and an engorgement of the papillæ of the lids; perhaps also a swelling around the margin of the cornea. If you have to deal with a condition which demands a much more active and persistent course of treatment than that recommended in simple catarrhal conjunctivitis; you cannot trust alone to change in hygienic surroundings and the adoption of certain rules regarding cleanliness, but you must use astringents.

What does the astringent do? In the first place, it increases the hyperemia, it increases the quantity of serous exudation; in short, it increases the inflammatory process in which the disease itself consists, but its secondary effect is to constrict the blood-vessels, and perhaps the adjacent tissue, and following this comes the relief for the hyperemia and the inflammatory process. An astringent caustic does more than this. It actually causes an eschar, which is thrown off.

In these cases you will need to apply, not only simple astringents, but, perhaps, caustic astringents. Of these latter, nitrate of silver and sulphate of copper hold perhaps the first rank. Almost the only guide you can have with reference to the use of these astringents and caustics, is the effect produced upon the patient.

If he suffers for more than half an hour from the increased severity of the symptoms caused by your astringent application, it is pretty good evidence that the astringent employed is too strong, and either a weaker solution, or a milder agent must be employed, or perhaps the astringent be given up altogether for a few hours, or a day or two.

If symptoms of corneal, or deeper-seated inflammation arise, an anodyne application of sulphate of atropia, two grains to the ounce, should be used three times a day.

It is a wise practice in ophthalmology to use as few applications, or agents, at any time, as is consistent with good care of the eyes. When a patient suffering from acute catarrhal conjunctivitis is pursuing an employment that of itself is likely to expose his eyes to injurious influences, very much will be accomplished by simply putting him under proper conditions of life until the attack be over. If this be not done, although there may be no advance to a higher form of disease, there may be a gradual sliding into a trachoma. When trachoma is reached, we have come to a very obstinate and sometimes incurable condition. For there is thickening and warping of the cartilage of the lids, the eyelashes may be constantly brushing upon the conjunctiva, and the patient has a sensation as if ten thousand grains of sand were in the eye. As a result of this constant irritation, the delicate structure of the cornea is very much injured. Its epithelium and deeper layers are involved in disease, and the case may become one of pannus, and perhaps one of ulceration. Then add to the condition of affairs, eversion of the lids, so that the tears, instead of passing away through the natural channel, flow over the cheek and keep the face in a more or less constant state of excoriation, and you have one of the most distressing of conditions. It is a condition that cannot be permanently and thoroughly remedied by any operation or course of treatment, although susceptible of relief. Eversion and inversion of the lids may be corrected for a year or two by an operation, but the relief is usually only temporary and the condition returns; for the state of the parts is such that it is impossible to restore the lids to their complete functions.

To recapitulate: granular lids, trachoma, opacities, vascularities, and often perforation of the cornea, entropion, ectropion—all consequences of blennorrhœa; and many of them incurable conditions, which can only be alleviated, but never thoroughly cured. Hence it is that conjunctivitis, in its early stages, has its importance for the general practitioner.

We next come to the form of conjunctivitis which is the most important of all—the *purulent variety*. I could relate some very sad stories regarding children who have been born with good eyes, but to which, through the carelessness of nurses, little particles of pus have been transmitted from towels; or who have been inoculated with pus from the genitals of the mother, and who, within a few hours after birth, have had fully developed purulent conjunctivitis, and who, having their eyes improperly treated by poultices, have lost them. The conjunctiva is engorged with blood, and the lids become so swollen that it is impossible for the child to open the eyes, and pus wells up through the palpebral fissure.

Now, if by the application of a poultice, which has frequently been done, the disease is fostered, it will extend, and within forty-eight hours from the time of the commencement of the disease the child's eyesight may be destroyed. The cornea has been actually broken down by the poultices. But there is another story. A man or woman becomes affected with urethral inflammation, and through want of personal cleanliness, or by carelessness, pus is transmitted from the seat of disease to the conjunctival sac. Within a few hours you will see developed all the acute inflammatory symptoms which usher in an attack of purulent conjunctivitis.

Purulent conjunctivitis has a malignancy of its own, whether arising in the new-born child or in the adult, from urethral contagion and want of personal cleanliness, or whether it arises as a natural termination or advance of acute catarrhal blennorrhœa.

There is a popular idea that a purulent conjunctivitis arising from infection from a suppurating urethra is more severe in its course than the same form of disease arising from other causes; but this is probably an error.

Purulent conjunctivitis also occurs epidemically, especially in hospitals, in workshops, in armies, and in badly ventilated rooms where many people are crowded together.

There is another point to be mentioned. A drop or atom of material removed from a catarrhal conjunctivitis occurring in my eye may excite a purulent conjunctivitis, if transmitted to a healthy eye. This shows that it is the same disease in both instances, the cases differing only in intensity.

Now, what is to be done when you meet with a case of *purulent conjunctivitis*?

There is one thing which it is very important *not* to do, and that is, to stand still with folded arms. You must know what to do, and you must do it with the very greatest celerity. If you are called upon to go into the country twenty miles, and upon your arrival find that you have to deal with an inflamed eye, the lids of which are so swollen that they are shut, and pus is streaming up between them, do not simply tell the friends to wash the eye out once or twice a day with alum-water, to put on a poultice to quiet the pain, and perhaps leave a two-grain solution of nitrate of silver to be introduced into the eye occasionally, with directions that the patient be placed in a dark room, with quinine or calomel to subdue the fever. If you do pursue this plan the patient will



almost certainly lose his eyesight, and for that loss you should be held responsible, and no one else.

Instead of that, do just what your common sense would dictate should be done when a man comes to you with one or both of his eyes filled with cinders or dust. What would be the first thing suggested by the common-sense rule of practice? Certainly it would be to wash out the cinders and dust.

The first thing to do, then, when called to a case of purulent conjunctivitis, is to remove the pus from the eye. If necessary, the eye should be washed as often as every half-hour, and it will be your first duty to instruct the mother, the sister, the brother, or the nurse, so that this part of the treatment may be continued regularly and thoroughly, just as often day and night as may be necessary. When you have so instructed the attendants that the eyes can be kept free from any accumulation of pus, you will have done your duty, and not until then.

Thorough cleanliness, then, is one of the most important elements in the treatment of this disease. This can be accomplished by syringing out the eye with tepid water, or, perhaps better, by wiping the eye with a piece of soft sponge or bits of soft cloth which have been dipped in tepid water.

Again I say, gentlemen, see that the eyes are kept clean, and for their cleanliness hold yourselves responsible.

In this early stage, if the swelling of the lids is very great and the temperature is increased, cold applications should be made, and that is best done by using bits of cloth which have been made cold by being placed on a block of ice or dipped in ice-cold water, such as one can get from the bottom of a well even in midsummer. These cloths must be changed sufficiently often to avoid any possibility of their becoming warm enough to make a poultice. This will sometimes be every two minutes. The application of cold should be kept up constantly, day and night, until the temperature of the lids is reduced and the hyperæmia lessened.

When this has been accomplished, you may begin the use of astringents, and for children as good a one as any is a two-grain solution of alum in water, allowing the solution to pass between the lids. This should be employed about twice a day. There is some difference of opinion with reference to the astringent to be employed; some claim that nitrate of silver possesses peculiar advantages; but I feel satisfied with the effects produced by the alum solution, and I am sure it is a safer application for young children. Perhaps when you come to the treatment of adults you will not feel satisfied with the effects produced by the alum. If not, the nitrate of silver may be used in ten-grain solutions. If the nitrate of silver is used, it is important to neutralize any excess that may be applied with a solution of chloride of sodium. The mitigated stick (nitrate of silver and nitrate of potash) may also be used on adults. If the tension of the lids is very great you may be obliged to take your scissors and divide the external canthus, cutting through the conjunctiva, the muscle and the integument at the same time, so as to loosen the lids and relieve the pressure. This operation is called canthoplasty.

If that symptom is present, which is very likely to occur in the advanced stages, namely: engorgement of the conjunctiva about the margin of the cornea, or chemosis, the swollen ring of tissue may be snipped here and there with the scissors; in that way the hyperæmia and the tension may be somewhat relieved.

If the patient is vigorous, leeches may be applied to the temples in the very early stages. Until the acute inflammatory symptoms have subsided, only mild astringents, not astringent caustics will be required.

Indeed, after their use has been commenced, it may be necessary to discontinue them because of the inflammatory reaction which they may produce.

While the inflammation is intense, attend thoroughly to cleanliness and the application of cold as the chief resources of treatment. With cleanliness alone you will be able to effect a cure in very many cases of ophthalmia neonatorum, although I should be unwilling to rely upon a treatment wholly without astringents.

What are the dangers in purulent conjunctivitis?

They relate chiefly to the cornea and they are very great.

For, if all the other parts of the eye are perfectly sound, and the cornea is completely opaque, the sight is lost, the world is nothing to the patient, and you will not be able to do anything to bring relief.

The object of treatment, then, is to save the cornea; *first*, from the influence of the acrid pus, and *second*, from increased tension. At the same time, when you use an astringent caustic, you must use good judgment in order not to affect the cornea by it. You are always sailing between Scylla and Charybdis in the use of caustics in these cases. The caustic that I would advise you not to use is the *solid* stick of nitrate of silver. It is almost impossible to gauge its effects.

When once the disease has reached the stage in which the cornea is infiltrated with pus, you are to know that your case is in a dangerous condition, and you will need all the skill and judgment you can possibly obtain if complete loss of vision is prevented.

Under such circumstances you may tap the cornea, possibly do an iridectomy, use atropia; but I do not dwell upon these points at this time, because I wish especially to impress upon you the importance of proper treatment in the early stage of the disease. I wish especially to impress upon you the difference between the early stage of purulent conjunctivitis and the early stage of a simple catarrhal conjunctivitis. For, if properly treated during the early stage, you will succeed in saving a large percentage of eyes; but if poultices are applied and pus is allowed to remain under the lids, the cornea may be destroyed in less than a week, and, as a matter of course, vision is lost forever.

A word or two as to the prevention of conjunctivitis and its consequences. When you enter upon the practice of your profession and are called upon to take medical charge of asylums, county-houses, or any institution or place where large numbers are congregated, it will be your duty to guard against the occurrence of epidemics of ophthalmic disease; and, if purulent ophthalmia is developed, or catarrhal ophthalmia appears, or better, when the eyes are sound, to see to it that each patient has a separate place for washing the eyes, has separate towels, is not permitted to sit in a room while it is being swept; that plenty of fresh air is furnished, and that the patients are not permitted to strain their eyes by attempting to read by the aid of bad light. In other words, it is your duty to see to it that conjunctivitis is not caused or propagated through any neglect on your part. You are only exercising your highest functions as physicians, when you are guarding against the occurrence of disease. You must labor to impress yourselves upon the communities in which your lot is cast, as one of the directors of their sanitary condition, and not

be content with being sent for when an epidemic is upon them.

I am here asked by one of the class, if diluted milk is not a good wash to be used in conjunctivitis.

Gentlemen: The good Lord has given us plenty of pure water for the purpose of securing cleanliness in the treatment of disease, as well as in health; but there seems to be a disposition to seek out mysterious and extraordinary agencies for simple purposes, while the study of the principles of treatment is neglected. Be not anxious about the details of prescriptions; be anxious only to know the general principles, and your application of them may vary from each other and yet all be correct.

Milk is well enough, but it is not so good as water; and water is much more accessible, and perhaps is less liable to act as an irritant to the eye, especially at certain seasons of the year.

I have spoken of alum as the astringent which I employ in conjunctivitis, but I am not wedded to that one, sulphate of zinc, or other astringents. Indeed, I care very little, within certain bounds, what astringents you employ. I have not been anxious to teach you what astringent you should employ, but rather to indicate in a general way the nature of simple conjunctival inflammation, and the principles which should guide you in its treatment.

## Original Communications.

### ACUTE INTESTINAL CATARRH OF INFANTS,

AND ITS TREATMENT BY MERCURIC CHLORIDE (CORROSIVE SUBLIMATE).

By RUDOLPH RAVENBURG, M.D.,

WASHINGTON, D. C.

THIS remedy is not new. Ringer, in his Hand-book, gives a very good description of the discharges which characterize this disease, and assigns to mercuric chloride the first place among the many remedies which have been found to be useful or curative. It is not in the dose, but rather the manner of exhibiting this medicine, that I differ from him, and to which I desire to call the attention of the profession, at a moment, I hope, when any suggestion, proving useful and curative, will certainly be acceptable.

For convenience' sake, and to avoid the danger and errors of drops, I prescribe one grain of the mercuric chloride to twelve ounces of distilled water. One teaspoonful to be mixed with an ordinary teacupful of milk, previously subjected to at least 150° F. for five minutes; the milk should never be brought to the boiling point. Of the milk so prepared I give to the infants as much at a time as age and the condition of the patient may demand. It is just here where the judgment of the attending physician is most required.

Exhibited in this manner, mercuric chloride will in the first twenty-four hours change the character of the fecal discharges, and in a few days, without any other remedy, gradually lessen and restore them to their normal condition. This in ordinary cases. In the severer forms of this disease, it may be necessary to use this remedy with a cupful of boiled and cooled water as an injection into the rectum. If desired, starch and laudanum may be added as the physician may deem proper.

Now for the *rationale* of this treatment.

In January, 1874, after partaking of a glass of buttermilk, I suffered a few days after from a severe attack of diarrhoea, which soon assumed the form of acute dysentery, with its great prostration, the discharges being large in number, small in quantity, consisting of grayish mucus, tinged in spots deeply with blood; the burning and tenesmus of rectum intense.

Subjecting the grayish and slightly tinged masses to microscopic observation (350+), I was at once struck with the number of micro-entozoa, resembling the infusoria seen in summer-time in the water in which a bouquet has been kept for a few days. They were slightly larger than a full-sized red blood-corpuscle, oval in shape, flat; no cilia could be discovered with the power used; they appeared sharply defined, perfectly transparent, to allow the red blood-corpuscles over which they moved to be readily seen; their bodies contained two nuclei or vacuoles, one large, the other small, increased for convenience; their movements were as rapid as those of the vinegar eel—in straight lines, however, going quick from object to object (blood-corpuscles or debris); on inclination of slide they readily and as rapidly moved against the current of plasma and blood corpuscles, and the number in the field of No 7 Hartnack, with 0 eyepiece, was between 20 and 40.

Thinking that the severe burning and tenesmus might be due to these infusorial micro-entozoa, I used an injection of 10 ℥ of olei terebinth. and acid. carbol. each to two ounces of water; (this solution or mixture I had formerly found to be instantly effective in destroying the common infusoria;) retained this injection over night, and in the morning found complete relief. Another injection and an exclusive dry diet proved a rapid cure. Since then I have read of a case of chronic dysentery (Virchow's Archives, 1875 or 1876), which occurred in St. Petersburg, Russia; amebæ were found in the evacuations, and the case resisting ordinary internal treatment, medicated injections, with a view of destroying these amebæ, were used with complete success and a rapid cure. This case is extremely interesting, minute in detail, and the cuts very fine; the whole deserves careful reading. In this case, however, these bodies possessed only the slow ameboid movements, threw out prolongations, and only their great size made it possible to differentiate them from the white blood-corpuscles. In my own case they were much smaller, and resembled the lower infusoria, besides being possessed of an extremely rapid motion, while the red blood-corpuscles remained perfectly stationary, or on inclination of stage followed the current only. Yet the cure was as prompt and rapid.

In the same journal I also saw an article on the comparative value of anti-ferments (bacterium hinderde chemicalien); and to mercuric-chloride was there assigned the first place, 1 in 25,000 being sufficient to completely sterilize the fluids used. This drew my attention to this remedy, and my infant son was the first in whose case it was with that view employed. Being artificially fed—the mother having but little milk for him—the Borden Eagle Brand condensed milk was used in summer, and the Swiss imported in winter. Being born in February, his milk and boiled water were accidentally placed in a refrigerator in early June, and within a few days his stools increased from two a day to six and eight, and showed the usually grass-green color, being largely mucous. Subjecting these mucous masses on the spot to microscopical examination showed the presence of



large numbers of these micro-entozoa, and pursuing the treatment above recommended, with an injection of a few ounces of mercuric chloride solution, proved without any further means a complete cure. As I laid the infection to the keeping of milk and water in the refrigerator, I at once ordered it to be kept on the mantelpiece simply, covered with clean napkins, and I had no further trouble. I cannot here lay too much stress upon the fact that articles used for the infants' food and their drinking water (which latter I allow only to be used after boiling and cooling), should under no circumstances be kept in an ice-chest or closed cupboard, as this will invariably prove dangerous to the infant.

Now the quantity of mercuric chloride is sufficiently small to allay any fears of danger, and as for remote effects, I can see none so far in my young son; besides, the valuable experiments of Keyes have sufficiently proved it to be an excellent restorer of the red blood corpuscles, and that it may be taken for a long time without producing a decrease in their number, and consequent anæmia and weakness. And as to the quantity required to produce a cure— $\frac{1}{16}$  to  $\frac{1}{10}$  of a grain extended over two or three days—such is altogether too small to produce constitutional effects. The curative effects are magical. It is possible that salicylic acid—or perhaps better, thymol—may answer equally well; but I am so far satisfied with the action of this mercurial preparation. Still, thymol is worth a trial, used in the same manner as above described.

Now the experiments of Lister on *bacterium lactis* have proved that infection is in the ratio of the number of the *bacterium lactis* or its spores introduced into the milk. The experiments of Tyndall—and they were extremely interesting and valuable—have also proved that putrefactive infection depends upon the kind and quantity of *bacterium* or its spores introduced into putrefiable mediæ. Tyndall has also shown that if the mediæ (fluids or solids) are subjected to 150° F. heat for at least two to five minutes, and if this heating process is practised every five or six hours for a day or two—with the object of destroying any *bacteriæ* which have escaped as spores—they can invariably be *sterilized* for an indefinite time.

An infant nursing its mother receives, therefore, its food supply in an almost chemically pure state, and the few *bacterial* or *infusorial* spores which it might receive into its stomach may be easily disposed of. But in the case of a bottle-fed infant this is different. Every article used is exposed to the atmospheric dust for longer or shorter periods, and when at last it gets its food, milk, bottle, and nipple may furnish more *bacteria* or its spores or *infusorial* spores than the digestive power is able to destroy. Putrefaction results, and, once established in the summer-time, infants must succumb, unless the putrefactive process is destroyed or the supply of infective material cut off by removing the infant from the impure city atmosphere to the purer one of high altitudes.

Height above sea level or pure sea air cuts short these summer complaints. Removal from the city into the country with low level is of little avail, and often worse.

The great hyperæmia which the alvine discharges in this disease produce in the anal fold and the surrounding integument which they may touch is sufficient to enable us to judge of the condition of the intestinal tract. It is certainly the same, and without doubt worse. The external aspect of the inflamed integument is more than erythematous, it is nearer erysipelas,

but yields readily to salicylic acid and starch in powder.

While the high summer temperature greatly debilitates the nervous system and weakens the digestive power, yet I still assign, according to Tyndall and Lister's views, the first place as factor in this disease to the advanced condition of *infusorial* and *bacterial* spores possessing or carrying with them putrefactive powers. Their sterilization before introduction with the food, or their destruction in the intestinal canal, must be our aim if we desire to save infantile life. Heat is the safest sterilizer, and a bottle-fed child should be given no food in summer-time which has not been submitted to a proper degree of heat for the proper time. Heat and time are both valuable factors. The food of such infants should be rapidly cooled and given to them as cool as is palatable to a grown person during the heated months—never even milk-warm between the early days of June and the beginning of September. For this advice I am indebted to Asst. Surgeon J. H. T. King, U. S. Army. (See New York Medical Record, June, 1872.) It saved my second child.

Strive to obtain chemical cleanliness of food and vessels, and little of this fatal disease will be known. For children up to nine or ten months, an exclusive milk diet should be enforced during the summer months. For children above that age, Imperial Granum is the most elegant and useful addition, or perhaps any of its equivalents. With Borden's Eagle Brand of condensed milk for the summer months, and the imported Swiss for the winter, bottle-fed children of normal health should certainly get along. The former is more binding, the latter the opposite. Microscopically, they differ, so far as I can see, in the sugar mainly, the crystals of the Borden brand being larger, more angular, and in greater quantity. Those of the imported Swiss are smaller, roundish, and less in number. The occasional addition of some lime-water is advisable, as the excessive quantity of crystallized sugar used for the preservation of the milk has a great tendency to increase the renal secretion, and may interfere, if too long continued without the addition of the wheat phosphates, with the normal development of osseous tissue.

To prevent this, Binz recommends the use of "Leguminose" in addition to the condensed milk, for two purposes: it separates the casein into finer floculi, making it thereby easier digestible; and secondly, being in part the flour of lentils, containing, therefore, silicious material, its use will prevent that osseous cachexia, which, through the excess of sugar ingested, may end in osteomalacia.

For children over twelve months old, good milk from healthy cows had better be used, providing it has been sterilized according to Tyndall's recommendations.

To judge from the manner and method of treatment of infants by many parents, they are certainly not worthy of the precious trust God has given them, and Nature has wisely decreed their loss.

But many worthy parents are ignorant of the slight mistakes which, committed without the least forethought, bring their little darlings so close to the grave, if not within it. To save these must be the pride of the physician.

No words can ever better express the nobility of our calling than those addressed by Baron Larrey to Napoleon the First, when at the siege of Jaffa he addressed this great chieftain thus: "Sir! it is my avocation to prolong human life, not to destroy it."

# A CASE OF INTUSSUSCEPTION—LAPAROTOMY—DEATH.

By JAS. L. LITTLE, M.D.,

PROFESSOR OF SURGERY, MEDICAL DEPARTMENT OF THE UNIVERSITY OF VERMONT; SURGEON TO ST. LUKE'S AND ST. VINCENT'S HOSPITALS, NEW YORK, ETC.

A. G. N., a little girl aged four years and eight months, had, with the exception of being a little costive at times, enjoyed good health up to March 7, 1878. On this day, about 7 A.M., while attempting to have a passage from the bowels, she complained of severe pains, which, however, lasted but a few minutes. About an hour afterwards she was again seized with pain while having a natural evacuation of the bowels. After this she seemed to be as well as usual, playing around the house and feeling quite merry. At 10.30 A.M., however, she was attacked with another paroxysm of pain that lasted about half an hour. During the afternoon she had several of these attacks, accompanied by vomiting and slight evacuations from the bowels, the latter consisting entirely of mucus stained with blood.

Dr. Laurence Johnson, of 323 West 27th street, saw the child about noon, and upon examination pronounced the case to be one of intussusception. Having recently treated a case successfully by distention, he injected large quantities of warm water into the bowel, and also tried to distend the intestines with air. This did not give relief, and seemed to increase the already severe pain. At 5 P.M. Dr. Johnson discovered an elongated tumor in the abdomen, in the situation of the descending colon. At this time no swelling or protrusion could be felt in the rectum; but, upon examining again at 7 P.M., the invaginated intestine could be touched with the finger.

At 8 P.M. I saw the child with Dr. Johnson. She was at that time quiet, being under the influence of paregoric, it having been administered during the afternoon. She had not vomited for several hours. The temperature was then 100½° in the axilla and 101° in the rectum. On examination I found the abdomen flat, and a hardness could be felt located along the line of the descending colon, feeling somewhat like a contracted rectus muscle. A paroxysm of pain caused this swelling to increase in size and hardness. There was dullness on percussion, and considerable tenderness on pressure. Rectal examination revealed the invaginated intestine reaching down to within a short distance of the anus. The finger could be passed directly around the inverted gut, and also into its lower opening. This examination gave rise to a paroxysm of straining, accompanied by severe pain.

The diagnosis being perfectly clear, and the treatment by distention having been already tried, laparotomy was advised. To this the parents readily consented. The operation was commenced at 10.30 P.M., Drs. Robert F. Weir, Laurence Johnson, Waitzfelder, and Mr. W. C. Campbell, one of my students, being present. All arrangements were made to operate according to Mr. Lister's method. The beautiful spray apparatus, manufactured by Codman & Shurtleff, of Boston, which throws an exceedingly fine cloud of spray, was used. New sponges were thoroughly washed in a solution of carbolic acid, of the strength of one part of acid to twenty of water. A solution of the same strength was used for the spray. The instruments were placed in this same solution for half an hour before the operation. The 1-40 solution was used during the operation for the sponges and instruments. Chloroform was administered to the patient instead

of ether, on account of the danger of fire with the latter, should it come in contact with the flame of the atomizer lamp, and also to prevent the vomiting and sickness which usually follow ether.

An incision, about two inches in length, was made in the median line of the abdomen, a little below the umbilicus, and carried through, until the sub-peritoneal fascia was reached. Before cutting through the peritoneum, the little hemorrhage resulting from the incision was easily controlled by torsion; one small vessel only requiring this means of arrest. The peritoneum was then opened, three fingers passed in, and the tumor searched for.

The hard swelling, which had been felt from the outside, was easily distinguished and traced upward beyond the reach of the fingers. The opening being too small, it was enlarged upward, above the umbilicus to within an inch of the xiphoid cartilage. The small intestine now protruded from the wound, and hung over the right side of the child's body.

By pressing with the thumb and finger on the lower part of the hardened mass, the intestine was gradually followed up, until the seat of the invagination was made out and brought into view. Then, with gentle squeezing below and pulling from above, the intestine was seen emerging from the colon. This was continued until the colon was emptied.

An examination of the parts at the seat of the intussusception showed considerable ecchymosis and some thickening. The appendix vermiformis and cæcum could not be distinguished. The intussusception appeared to be of the variety known as the ileocolic, and the length of the invaginated portion was estimated at the time at about one foot.

Great difficulty was now experienced in returning the protruded intestines into the abdominal cavity, and the reduction was not completed until several silver wire sutures had been put in the abdominal walls, while the intestines were firmly held down. The edges of the wound were brought together with eight silver wire sutures, and Lister's dressings applied. Lister's method was fully carried out during the operation, not a single detail being omitted. Collin & Co.'s small illuminator was of great assistance.

At 12.30 A.M. the patient was put to bed, and recovered from the influence of the anæsthetic about 1 A.M. At this time one drop of Magendie's solution was administered by Dr. Johnson, and repeated every hour until 6 A.M. She sank gradually but steadily from the time of the operation up to 5 A.M., from which hour she began to fail very rapidly until 7.30 A.M., at which time she died.

60 WEST FORTIETH STREET.

**MEMBRANOUS DYSMENORRHEA.**—Dr. Ranking reports a case of membranous dysmenorrhœa that was much benefited by the application of Chapman's spinal hot-bag to the lumbar region for two hours three times a day, and ten drops of Donovan's solution taken internally three times daily for three months. The general effects produced were diminished formation and thickening of the membrane, it becoming less leathery and more distinctly cellular; increased facility of separation of the membrane, and more rapid and complete expulsion; shortening of the menstrual period from ten to four days; more rapid recovery, in consequence of the diminution of pain and uterine action; benefit indirectly accruing from diminished bruising of the cervical canal; smaller quantity of morphia required; no iodism or mercurialism.—*The British Med. Jour.*



## TWO CASES OF TRAUMATIC TETANUS SUCCESSFULLY TREATED BY CALABAR BEAN AND WHISKEY.

By MARTIN BURKE, M.D.,

NEW YORK.

DURING my service as surgical interne in a well-known hospital, there occurred about twenty cases of tetanus, of which four, possibly five, terminated in recovery; of these, two were under my immediate control. The first case was Ed. Higgird, æt. 33, who was admitted to hospital July 23, 1877. Patient stated that ten days before, while walking in his bare feet, he stepped upon a rusty nail and ran it into the ball of his left foot. The pain was slight and the wound healed rapidly. Two days before admission he was surprised by a marked stiffness of his lower jaw, which gradually increased; his abdominal muscles also stiffened and he began to perspire continuously; he also complained of occasional "jerks." He swallowed with difficulty. On examining him I found he could only open his mouth about an inch. He looked haggard and weak. I ordered him to bed, and as his tongue was coated and his breath foul, I gave him castor oil and ordered drop doses of fl. ext. physostigma to be given hourly. This preparation, I was informed by the apothecary, was of the strength of sixty grains to the drachm. At 2 o'clock P.M., potass. bromid. was ordered. In an hour patient slept. Directed a calabar bean to be given as early as 5 o'clock.

July 24th.—At 10 A.M. I made my rounds: my patient had not so much pain in his abdomen; his other symptoms were about the same. Dr. Phelps, Visiting Surgeon, saw him to-day, and advised me to increase my calabar until I got its physiological effects. I then increased the dose, giving him a drop every half hour, and with each drop combining 3 i. of whiskey; this is the only originality about the treatment, viz.: that large doses of whiskey seem necessary to counteract in a measure the terribly depressing effects of calabar bean. I never gave him one without the other, except a little weak milk-punch, which was given ad libitum. Patient can take no solid food; so, large quantities of plain milk were ordered. At 1 o'clock that night I again gave him gr. xxxv. of potass. bromid. July 25th.—The dose of the bean has been increased and whiskey in proportion. Pupils slightly contracted; patient's muscles still rigid. About ninety drops of calabar bean and two pints of whiskey were administered during the twenty-four hours. Two quarts of milk and two eggs were also given. July 26th.—Condition about the same. Physiological effects slightly marked. His perspiration not so excessive; his abdominal pain is less and his twitchings have decreased. Upon placing my hand upon his abdomen a spasm is excited. His temperature is 100½° F.; pulse, 100°. July 27th.—I ordered the "bean" in half hourly doses of five drops, to which I add 3 v. of whiskey. I ordered milk and beef-tea in abundance. Toward evening, as the action of the drug began to exhibit itself too strongly, I decreased the quantity to minim doses hourly. About sixteen ounces of whiskey consumed to day. July 28th.—Patient a little better; he says he has the "jerks" less frequently; his jaws open more freely. Four drops of physostigma given half-hourly, with alcohol in the same proportion as hitherto. As a hypnotic, about one grain of opium and gr. xv. of potass. brom. were given. Temp. 99° F. Patient sleeps well. July 29th.—Treatment continued. Patient's condition the same. At 11 P.M. opium and

bromid. given. July 30th.—Patient is much better; his abdomen is not so tense; his face and arms are covered with a papular eruption; upon his face it resembles acne indurata. About 3 ij. of calabar bean have been administered from 6 A.M. until 12 M. A pint of whiskey has been consumed. Milk and beef-tea ad libitum. July 31st.—Sleeping draught discontinued. Otherwise, the treatment is exactly the same. Spasms are rare; patient in better spirits.

August 1st.—To-day his temperature became normal. Liquid nourishment still continued. Doses of calabar bean not reduced in size; about 3 iij. taken up to 12, midnight, when patient slept. This plan of treatment was continued in the same way, never giving more than gtt. xiii. of the fl. ext. of calabar bean every half hour, and never using more than two pints of whiskey in the day. His inesta was always fluid, consisting of milk, egg, and beef-tea. On the 30th of August, although he was taking 3 iss. of the fl. ext. daily, I resolved to discontinue the drug as he had scarcely a symptom. Good care and nourishment now completed his cure.

CASE II.—I was so satisfied with the result that I longed for another case to test my treatment anew, and I had not long to wait, for on the 20th of August was admitted to our wards, Patrick Gellows. He said that three weeks before, whilst at work in Charleston, S. C., his hand had been badly lacerated, and four days after his jaws began to stiffen. Shortly after his thoracic and abdominal muscles grew rigid, and finally, August 17th, he had had a violent spasm and lost the use of his legs. August 20th.—He had had frequent tonic spasms since, but none so severe as the first. On examination I found marked trismus, but not so marked as in my former case, and upon suddenly placing my hand upon his abdomen he had a tonic spasm and cried with pain. I ordered him to bed and gave a cathartic immediately. As there was no new preparation of calabar bean in the hospital, I requisitioned some and commenced with the fl. extract, giving him 3 iij. doses every half hour with the usual amount of whiskey and liquid nourishment, until, on the evening of the 22d inst., he was taking gtt. viii. of the fl. ext. and 3 iv. of whiskey half-hourly. I gave him no opium. August 23d.—At about 1 o'clock P.M. patient began to vomit and had some severe spasms with marked opisthotonos. I increased the fl. ext. to gtt. ix. every half hour; reduced his allowance of fluid inesta, as I feared he had drank too much milk. At 6.30 P.M. he again had severe spasms, and I now increased the dose to gtt. xi. every half hour. In a short time his pupils were markedly contracted and he complained of numbness of his extremities. I now gradually reduced the dose until at 2 A.M. (24th inst.), he was taking only gtt. viii. every hour. August 24th.—Patient feels better and brighter; his muscles are not so tense as yesterday. From 6 A.M. till 6 P.M., gtt. viii. of the fl. ext. and 3 iv. of whiskey were given half-hourly. At 9 P.M. he had another violent spasm. I injected hypodermically. ℞. xv. of the fl. ext., and gave him 3 ss. of whiskey; as he felt better in a short time after this, I ordered gtt. xv. to be given every half hour, and before retiring gave gr. xxx. pot. brom. August 25th.—Patient somewhat better; the same treatment continued; physiological action of the drug slightly marked.—August 26th.—I gave him to-day gtt. x. of the fl. ext. every half hour, conjoined with 3 v. of whiskey; he bears it remarkably well; he has but few twitches. August 27th.—Patient is much better. August 28th.—To-day I directed the druggist to make an alcoholic solution of the solid extract of calabar bean prepared

by Maseli, of Darmstadt, of the strength of which I resolved to employ hereafter. I commenced with ℥viii. every hour. I gradually increased this to ℥xxii. every hour until patient slept. August 29th.—Patient to-day has had a much easier time, although I can at pleasure produce a slight spasm by passing my hand over his abdomen. To get the physiological effect of the drug, I gradually increased the dose of the solution from ℥xxii. to ℥xxxiii. every hour.

At about 11.40 p.m. I was called to see my patient, whom I found speechless; his pupils contracted to as small a point as I have ever seen in opium-poisoning, and his limbs possessed of an extraordinary rigidity. He appeared to know me. I at once gave him ʒss. of whiskey, hypodermically, and about ʒi. by the mouth, and in about a minute after his pupils began to dilate and he commenced to talk; he declared he had a most terrible dream and imagined he was dying. I reduced his dose to ℥x. every hour. He had another attack some hours after, but large quantities of whiskey appeared to restore him; he still had spasms upon pressing his abdomen, and his trismus still continued. August 30th.—He can move his jaws to day, and his appetite is better. I continue the drug in doses ranging from ℥x. to xxv. every hour. It is needless for me to continue the details further, as under this treatment he steadily improved; and in September he was discharged cured.

I may only add that I think at no time could my patient have endured such enormous doses of calabar bean, had it not been for the constant stimulation which did not appear to affect his mental faculties in the least. I have seen many cases of tetanus exhibiting in the beginning exactly such symptoms, result ultimately in death despite the use of numerous and powerful remedies, and despite much careful nursing; therefore, feel it my duty to publish my limited experience in the use of calabar bean and excessive and continued stimulation in the treatment of this affection.

147 LEXINGTON AV.

## Progress of Medical Science.

RESEARCHES ON MORBID LOCAL TEMPERATURES.—Prof. Peter, of Paris, has been performing a series of experiments on the temperature of the thoracic wall in the case of pleurisy, under certain definite known conditions, and in comparison with the opposite healthy side. The thermometer was first placed in the sixth intercostal space and then in the axilla of the sound side. His conclusions are as follows: That local hyperthermia following puncture in pleurisy, as in ascites, is the consequence of hyperæmia *a vacuo*.

In the case of pleurisy this hyperæmia is a mechanical addition to the preceding hyperæmia and phlegmasia, for which puncture had no curative effect. Two hyperæmic conditions thus occur in place of one.

Thus there exists necessarily an increase of tension in the vessels of the still inflamed pleura, and the liquid freshly exuded may be richer in leucocytes and hemates. The possible purulent transformation of the renewed exudations occurs in certain cases where the puncture has occurred during the very febrile period of pleurisy. This accumulation of hyperæmia, this sharp return of the blood into the pleural cavity, manifests itself by local hyperthermia, explains the syn-

cope, the pulmonary congestion, the consecutive albuminous expectoration, the pain and the oppression going on almost to suffocation, all of which are produced by the sudden depletion in these cases.—*La France Médicale*, May 4, 1878.

FREW ON BATTEY'S OPERATION.—Dr. Frew, in reporting a case of removal of both ovaries by abdominal incision, for obstinate dysmenorrhœa complicated with hysteria, where great improvement of the symptoms resulted, reviews the operations that have thus far been done. The conclusions are interesting as showing that we are beginning to formulate our ideas as to the cases in which this operation is applicable. There are in all twenty instances, according to the records: twelve by Dr. Battey, of Georgia, six by Dr. Sims, one by Dr. Sabine, and one by the writer. In ten of them but one ovary was removed; in eight of the cases no permanent improvement followed; in two, one of Dr. Sims' and one of Dr. Sabine's, cures were reported. These unfavorable statistics have caused Drs. Battey and Sims to abandon the operation. In ten cases both ovaries were removed. Leaving out of the account two cases in which death can be accounted for on grounds apart from the operation itself, two, or twenty-five per cent., died of peritonitis. Of the remaining six, four were cured permanently, one was much improved, and one was not benefited. Seven of the cases were treated by incision of the abdominal walls, thirteen through the vagina. In view of the results Drs. Battey and Sims are inclined to think that abdominal incision is best adapted for the majority of the cases. As for the expediency of the operation in comparison with ovariectomy for tumor, it may be said that the patient has to decide between almost certain death on the one hand and a fair prospect of cure on the other; in the former "she has to decide between a life of suffering (it may be a long one) and a capital operation, which, if it do not kill, may not cure." What, then, is asked, are the indications for the operation? First in order come cases of obstinate and inveterate hysteria, complicated or uncomplicated with incurable, palpable disease of the generative organs. Secondly, a condition of severe dysmenorrhœa, that cannot be relieved by other treatment. Thirdly, absence of the uterus, the patient suffering from undelivered menstrual molimen. Fourthly, complete incurable atresia of the vagina. Fifthly, presence of uterine fibroids which endanger life by hemorrhage. When the tumors cannot be safely nucleated, the ovaries may be removed with a fair prospect of producing atrophy of the uterus and growths, as practised by Trenholme, of Montreal, and Hegar, of Freiburg.—*Ohio Med. Recorder*, May, 1878.

AN ANALYSIS OF 112 CASES OF DIPHTHERIA TREATED DURING THE LAST TWO YEARS.—Dr. Van Wageningen, of Newark, has made a very careful study of the clinical phenomena belonging to diphtheria, and the results cannot fail to be of great value to practitioners. He thinks there can be little doubt that the disease takes its origin in filth—an opinion that was reached some years ago by the English sanitary authorities, but he finds it difficult to determine whether the poison "is produced *de novo* in decomposing masses of vegetable and animal tissue, or whether our sewers and cesspools are simply the hot-beds in which the disease-bearing spores are rapidly propagated." Four instances are given in which this condition was shown to be present. In one the well-water was poisoned by manure; in a second the backyard contained a cesspool and privies from which foul matters escaped;



in a third the house had no cellar, and there was stagnant water under it; in a fourth the water-pipe had sprung leak, and the cellar contained "a pool of water covered with dark-green scum." Dampness superadded to filth is thought to be a powerfully predisposing cause.

As for the season of prevalence, December had the largest number (26); June and July the least (each 3). One of the most important questions of a practical character has always been, "Is diphtheria contagious?" and it is answered by the figures that 59 cases followed direct exposure, while 13 were probably exposed; 40 knew of no exposure. The author is of opinion that the chances of a child exposed are three to one in favor of contagion. There is more danger of contagion in the severer cases, though this is not invariably the rule. The poison was never, so far as he knew, carried in the clothing; contagion was *direct*. Females were more often attacked than men (62 to 50). Under ten years there were 74 cases; from the ages of ten to twenty there were 22; between twenty and thirty, 7; between thirty and forty, 5; from forty to fifty, 3. He divides all cases into (1) *malignant*, where the constitutional symptoms were marked, the membrane rapid in formation and heavy, the sub-maxillary and cervical glands much swollen, and the breath early offensive; (2) *mild*, where the constitutional disturbance was moderate, the membrane slow in spreading, the enlargement of glands moderate, and the offensiveness of the breath overcome by antiseptics; and (3) *diphtheritic throat*, where there was little constitutional disturbance after the first day or two, the deposit small, and glandular tenderness rather than enlargement. Of the first variety there were 32; of the second, or *mild*, 46; and of the third, *diphtheritic throat*, 33. In 104 cases the deposit began in the tonsils, or some part of the pharynx, and of these, 33 extended up into the posterior nares, and 14 downward into the larynx. In 4 it began in the nares, and in 4 in the larynx. The maximum duration of the membrane was 21 days; the minimum, 2. In all, there were about 17 deaths, or about one-seventh of all, and the forms were all malignant. The younger the child the greater appeared to have been the danger, except among very young infants who are not predisposed to the disease. Diphtheria in the larynx was regarded as the most fatal symptom, 12 dying out of 18. As for the actual and final cause of death, it is set down as follows: septicæmia alone, 2; eclampsia, 2; cardiac paralysis, 2; asphyxia (carbonic acid poisoning), 10; asthenia alone, 1. Sequelæ occurred in 11 cases, or in about one-tenth of all. In 10 there was paralysis of the pharynx, in 7 of the larynx, in 6 of the limbs, in 2 of the heart; in 2 there were rheumatic pains.

The temperature was found to be highest at the outset, averaging from 102° to 103° F., the highest being 106½° F. After the second day it fell, averaging from normal to slightly above that point. Treatment was directed towards three points: 1. To cause suppuration in the membrane. 2. To thoroughly disinfect the air-passages. 3. To overcome the marked asthenia by which all cases of this disease are characterized. To accomplish the first, the *vapor of water* (120°-130° F.) was inhaled for 15 to 20 minutes every hour. This remedy is believed by the author to be thoroughly satisfactory, giving very great relief from distress, and actually saving five out of the six cases where the membrane was in the larynx. Experience of the disease in his own person enables the writer to emphasize this treatment forcibly. In disinfection he used salicylic or carbolic acid; the strength was as

great as the patient could bear, and it was combined with the vapor of the steam-spray. As restoratives, food in the shape of milk and beef-tea was used; as tonics, milk-punch, quinia, or iron, and quinia citrate.—*New York Med. Jour.*, June, 1878.

THE DOCTRINE OF ACETONÆMIA.—The suddenness of death which sometimes occurs in cases of diabetes has led to a variety of surmises as to the cause. The patient, without premonitory symptoms, suddenly becomes drowsy and dull, stupor deepens to coma, and coma to death. The post-mortem examination sheds no light upon the cause of death. By some it has been thought that this new condition is one of uræmia; others again have found the excretion of sugar suddenly diminished, and have accordingly attributed the new symptoms to retention of sugar in the blood. Lereh, in 1853, from the smell of the breath, urine, etc., was led to surmise that the symptoms were due to acetone, a volatile ethereal liquid allied to chloroform in its properties. Petters tested the theory by fractional distillation of the urine from a patient who died of diabetic coma; he thus obtained a clear, highly refracting, inflammable liquid, having the boiling-point of acetone and giving the same reactions—neutral, browning with sulphuric acid, yielding a brown precipitate with caustic potash, and not reducing oxide of silver. The blood also yielded the same material. Others have since confirmed these views. Recently Dr. Foster has found acetone in fresh diabetic urine, and has also proved that acetone is capable of producing the post-mortem appearances found in diabetic coma, viz.: a thick fluid state of the blood which presents a milky opacity, and he thinks that he has prevented death in diabetic coma by the administration of agents which have the power of arresting fermentation. This array of facts would seem to place the whole matter upon a satisfactory basis, but still some reasonable doubts may be thrown upon even this explanation. In the first place, one observer compares the smell of the breath, urine, etc., to chloroform, another to beer, another to vinegar. Then again, the rapid transformation of unstable compounds out of the body, or in it after death, make it problematical whether such a change did not occur, the blood perhaps containing some substance capable of yielding acetone, but not acetone itself. This is the view taken by Rupstein. He found in the fresh urine a peculiar acid—diacetic acid. On boiling, or after standing for a considerable time, the urine ceased to give the reaction of this acid and acquired the odor of acetone. This acid will break up, by assuming two molecules of water, into acetone, alcohol, and carbonic acid.

Again in reference to the question, Are the effects of acetone in the blood similar to those observed in diabetic coma? Kussmaul has found that its effect upon the system is much the same as alcohol. He has been in the habit of prescribing acetone as a remedy for dyspnoea, and has given a drachm or a drachm and a half daily without any ill effect. In fact it required a drachm to produce any toxic effect in a rabbit. To produce acetonæmia, therefore, a very large amount must be generated in the system before the poisonous effects are produced. While, therefore, there is strong evidence that diabetic coma is, in many cases at least, accompanied by, and probably due to the formation in the blood of substances of the ethyl-acetic series, sometimes capable of yielding acetone; there is not sufficient evidence that the symptoms are due to the presence of acetone in the blood to justify the name of "acetonæmia."—*The Lancet*, May 11, 1878.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## HOTEL PHYSICIANS AND RURAL PRACTITIONERS.

It would appear that our friends in Saratoga are still exercised concerning the propriety of certain outside physicians coming to that place to practise medicine, and have taken measures accordingly for placing their protests upon record. The danger in all such proceedings is that of giving an undue weight to individual interests, when in reality the intention is to discuss general principles. If any of the gentlemen referred to as coming from the city, or elsewhere, actually resort to any unfair means for obtaining practice, they are clearly subjects for discipline. Unless this can be proven, however, the case falls to the ground, as a medical man has the right to practise his profession anywhere and everywhere he pleases. One physician does not own a community more than another, and honorable competition for business is open to all.

Of course the question that presents itself in this connection has reference to what should be considered "questionable measures in seeking practice." If the latter are merely meant to apply to doings of the medical gentlemen who choose to live for a while at a watering-place, or take up their quarters at any summer resort, and practise their profession, no reasonable objection can be urged against the proceeding. These are no more than ordinary means of obtaining business, which are sanctioned everywhere. While we must admit that the rural practitioner can hardly look upon this division of labor in a strictly impartial manner, he has really no remedy. If the medical gentlemen from abroad have extensive reputations, so much the worse for the chances of the regular resident of the place. This, in fact, explains in a very reasonable manner why certain physicians always have enough to do, no matter where they may go. But these remarks do not apply to the hotel physician, ordinarily so-called, as the latter personage holds his position by special favor of the proprietor, and by a business understanding is

enabled almost to force his services upon transient guests. The fact of his occupying such a position seems to imply that every one connected with the hotel shall do his or her best to throw practice in his way. Such proceedings are naturally and justly looked upon by the rural practitioners in the neighborhood as a professional monopoly. It is radically wrong, decidedly unprofessional, and positively dishonorable for any medical man to lend his countenance to such practices. We regret to say that too many transient hotel physicians are of this class. As regards those gentlemen, however, who temporarily reside at the hotels in Saratoga, we are well assured that no complaint on such a score has any foundation in fact, and that the professional competition, as far as they are concerned, is in every respect fair, and honorable. In the absence of any direct proof to the contrary in the protest of the local society, we may perhaps conjecture that some new cause for disagreement other than that which existed two years since has manifested itself. At all events, on general principles, our remarks cannot be considered out of place, and admit of a wide range of application.

## THE MAINE MEDICAL ASSOCIATION—STATE BOARDS OF HEALTH—MALPRACTICE SUITS.

The reports of the different State societies, which we have from time to time presented to our readers, show a very commendable state of activity in these organizations, and prove the character and value of the work for which the members are capable. It is but justice in this connection to refer to the doings of the Maine Medical Association to prove that its members are also alive to their duties, and are fully impressed with the character of the questions which should interest a State organization. As an illustration, we may refer to the advocacy of a State Board of Health, and the means which have been, and are still to be, taken to that end. The time is evidently ripe for any such movement, not only in Maine, but in all other States that have no provision for such a board. It is gratifying to notice that such States have not lost sight of their opportunities to present their claims for organized sanitary supervision. If we are able to judge of the signs of the times in connection with the recent establishment of the Government Bureau at Washington, it will not be long before every State will be suitably cared for, and be part of a grand scheme of sanitary protection throughout the whole country. Partaking somewhat of the method adopted by the New Jersey and Connecticut State Societies, a very praiseworthy effort is made to collate the experiences of members concerning leading medical topics of discussion. The report on the etiology of typhoid is an instance in point.

The prevention of prostitution came up for discussion from two very different standpoints, showing how widely competent men may differ upon matters



of expediency. The radical measures advocated by Dr. French are scarcely such as would commend themselves to the ordinary legislator, although the latter may freely admit the premises which are laid down by the author in question.

Passing over the strictly medical papers, we take occasion to refer, in conclusion, to a feature which should be engrafted upon the proceedings of similar organizations throughout the country, and that is, the presentation of reports of suits of malpractice occurring throughout the State. Dr. Sanger has done a good service in this particular, and by his statistics gives force to suggestions for the protection of the practitioner. His showing is quite remarkable, and his recommendations are eminently reasonable.

#### THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE necessary proceeding for legalizing the meeting of the State Society in January last took place at the recent meeting of that organization held in Albany. We presume that there will now be no more discussion, at least for some time to come, regarding a change of programme. There are a great many objections that may from an individual standpoint be urged against meeting at almost any time of the year, but we have a right to presume that the majority are now satisfied, and there leave the matter.

#### ABUSE OF MEDICAL CHARITIES.

IT is a gratifying state of affairs to notice that there is a desire on the part of boards of trustees and the medical press throughout the country to remedy the abuse of medical charity, so prevalent in our large cities. The recent action which the authorities of the New York Dispensary have taken in this matter looks very promising towards a reform. The physicians of the Massachusetts General Hospital have also made a very careful and suggestive study of the proportions of the evil in Boston. During the month of November last an experienced person was employed by the trustees of the Hospital to examine into the case of each applicant, with the following result:

Whole number of visits, 386; number of deserving poor, 254; number giving wrong addresses, 79; number able to pay, 53. Now, allowing one-half of those who gave wrong addresses to have done so from misunderstanding, etc., it yet leaves us 93 applicants out of 386, or about one-quarter, who were able to pay. We presume that even this is a very small proportion of those who cheat the poor physician of his legitimate fee.

DR. NATHAN BOZEMAN, of this city, gave a reception, June 28th, at his residence, to Prof. S. D. Gross, of Philadelphia, and Dr. T. G. Richardson (ex-President of the American Medical Association), of New Orleans. A number of distinguished medical gentlemen were present, and the evening was a very enjoyable one.

## Reports of Societies.

### MEDICAL SOCIETY OF THE STATE OF NEW YORK.

*Annual Meeting, held at Congress Hall, Albany, June 18, 1878.*

DR. A. L. SAUNDERS, VICE-PRESIDENT, IN THE CHAIR.

#### THE MEETING OF JANUARY LEGALIZED.

THE Society was called to order at 10.15 A.M., the President, A. L. Saunders, in the chair.

The following were in attendance: *Delegates*, Thos. Beckett, H. S. Case, F. C. Curtis, Albany Co.; Wm. L. Cooper, Rensselaer Co.; Stephen G. De LaMater, Schenectady Co.; John Vedder, Ulster Co. *Permanent Members*, J. L. Babcock, J. S. Bailey, Wm. H. Bailey, R. B. Bontecou, M. H. Burton, Wm. L. Cooper, S. H. Freeman, James C. Hutchinson, Joseph Lewi, Henry March, Levi Moore, Jacob S. Mosher, J. N. Northrop, C. H. Porter, C. A. Robertson, A. L. Saunders, Wm. M. Smith, R. H. Ward.

The Secretary, in accordance with the resolutions passed at the January meeting, presented the proceedings of that meeting.

On motion of DR. WM. H. BAILEY, the reading of these proceedings in full was dispensed with.

The Secretary then read the resolutions passed at that meeting relative to the business to be transacted at this meeting, which were to the effect that the proceedings of the January meeting be adopted as the proceedings of this, the regular annual meeting of 1878.

The President thereupon declared the minutes and transactions of the meeting of January 15, 16, and 17, 1878, to be in fact and intention the minutes and transactions of this, the legal annual meeting for 1878. On motion of the Secretary, the declaration of the President was unanimously sustained as the declaration of this meeting.

It was then moved by the Secretary, and the motion was seconded, that in accordance with the notice given by resolution at the January meeting, the time of holding the annual meeting be changed to the first Tuesday in February. The motion was carried, all present voting affirmatively.

The Secretary then announced that the President-elect (Dr. Roosa) had appointed Dr. J. W. S. Gouley, of New York, Censor of the Southern District, in place of E. R. Peaslee, deceased, and that he had also appointed Dr. J. V. Kendall, of Baldwinsville, delegate to the Maine Medical Association, no person having been selected as delegate at the January meeting.

On motion of the Secretary, it was voted that these appointments of Dr. Roosa be confirmed by the Society.

DR. WM. H. BAILEY moved that the thanks of this Society be extended to Mr. Adam Blake, proprietor of Congress Hall, for the cheerful readiness with which he provided an agreeable room for this meeting of the Society. The motion was unanimously carried. The minutes of the meeting were then read and approved.

A motion having been made to adjourn, the President said: "Before putting this motion, allow me to congratulate the Society on its success in clearing away the muddle which for the last year has hung about the legality of its action, and to express the confident belief that, this encumbrance happily removed, the Society will attain to still greater heights of prosperity and usefulness."

Dr. Wm. H. BAILEY requested the indulgence of the Society, and moved that the thanks of this Society be presented to Dr. A. L. Saunders for the faithfulness with which he has presided over the Society in its struggle to remove this incubus of illegality, both at the January meeting and at this meeting.

Dr. JAMES S. BAILEY, while seconding the motion, desired to state that he had had good reason to believe that the main reason that led Dr. Jenkins to decline the Presidency of this Society was the depressed state of his health, which had become still further impaired, so as to render it necessary for him to relinquish his business, and seek recuperation abroad.

The motion was then put by the Secretary, and unanimously carried.

On motion, the Society then adjourned.

WM. MANLIUS SMITH, *Secretary*.

### MAINE MEDICAL ASSOCIATION.

*Twenty-sixth Annual Meeting, held at Portland, Maine, June 11th, 12th, and 13th.*

Dr. T. H. JEWETT, of South Berwick, President, IN THE CHAIR.

(Special report for THE MEDICAL RECORD.)

FIRST DAY—TUESDAY, JUNE 11TH.

THE twenty-sixth annual meeting of this Association was held in Portland, on Tuesday, Wednesday, and Thursday, June 11th, 12th, and 13th. There was a large attendance from all parts of the State, and also delegates from the State Societies of New Hampshire, Vermont, and Connecticut. The principal part of the morning session was occupied by routine business. The only paper presented was a report on otology by Dr. Holt, of Portland, which was a practical discussion of suppurative inflammation of the middle ear.

#### PRESIDENT'S ADDRESS.

At the opening of the afternoon session, the President, Dr. T. H. Jewett, of South Berwick, delivered his address. He took up the subjects of medical jurisprudence, hygiene, and preventive medicine, and the improvements in therapeutics. Under the first head he discussed the lack of proper education, in this branch, on the part of students, and the present unsatisfactory methods of obtaining expert testimony in the courts. He believed that a "system of medico-legal officials, specially trained as experts or arbitrators, should be established, attested as capable by competent judges, to examine and give impartial and unbiased quasi-official opinions for the benefit of the courts." Under the second head of his discourse, the great need of an efficient State Board of Health was forcibly presented, and the Association urged to continue its efforts to secure such an organization. He then proceeded to discuss some of the improvements in therapeutics, and to indicate in what direction its future progress was to proceed.

#### ETIOLOGY OF TYPHOID FEVER.

Dr. STONE, of Deering, read a paper on the "Etiology of Typhoid Fever." The paper was principally a discussion of the question whether it depends upon a specific poison, or may be originated *de novo* by the decomposition of organic materials, vegetable as well as animal, in conjunction with certain favoring conditions which are not well known. He claimed that the country practitioners were in a position much more favorable to determine this question, because

they could better know the history of their patients, and the probability of their exposure to the disease. He felt sure that he had seen many cases which could not have come in contact with the disease, or been subjected to the poison of a typhoid patient. As evidence that the disease might be caused by vegetable decomposition, he gave an interesting description of an outbreak of fever which followed the opening of a muck-bed near a small village. The disease recurred every year at the latter part of summer for seven years, more than one hundred cases occurring within a radius of half a mile, and not more than six or seven houses escaping. At the end of this time the muck-bed was drained and allowed to be covered with a heavy growth of flags, and the disease disappeared.

In the discussion on the paper, it seemed to be the opinion of a majority of the country practitioners speaking on the subject, that the theory of a specific poison could not be maintained unless it was assumed that the vitality of the poison could be continued for an indefinite period.

#### MECHANICAL TREATMENT OF STERILITY.

Dr. GORDON, of Portland, presented an abstract of a paper on the "Mechanical Treatment of Sterility," with a history of cases illustrating the modes in which the various deformities of the uterus causing that condition might be overcome, particularly arguing in favor of mild measures persistently carried out, rather than surgical procedures.

#### THE ERADICATION OF SYPHILIS AND CRIME.

Dr. G. F. FRENCH, of Portland, read a paper on "The Eradication of Syphilis and Crime by the Extirpation in that Class of the Procreative Power." Passing in review the latest facts and statistics relative to the prevalence of syphilis, he believed this disease is on the increase. Adopting Prof. Gross' views regarding the essential identity of scrofula and syphilis, as modified by transmission through several generations, he alluded to the connection between scrofula and tubercle, gave some appalling statistics of infantile mortality due to syphilitic taint, and affirmed that syphilis was the "*fons et origo*" of human deterioration. Criminal propensities are as hereditary as disease, as illustrated by the family history of the "Jukes;" and since confirmed criminals, as a rule, are a diseased, degenerate stock, it behooves society to prevent them from propagating both their diseases and their criminal propensities. This can be effected by making the extirpation of the procreative power, with imprisonment for life, a penalty for capital offences. He advocated bringing the venereal, like other contagious diseases, under the jurisdiction of the State Board of Health, according to the suggestion of J. Marion Sims.

A syphilitic prostitute should be spayed, lest she become, like Margaret in the Jukes, the "mother of harlots." Syphilis, which is already a ground for divorce, ought to be a legal impediment to marriage, and it should be a crime, punishable with mutilation, for any syphilitic to cohabit. And the time will come when it will be considered an outrage on society for any one to marry who has any form of severe transmissible disease.

#### SECOND DAY—WEDNESDAY, JUNE 12TH.

All of the morning and part of the afternoon session were spent in the discussion of a question of



ethics connected with the expulsion of a member, to the exclusion of the regular business.

## MALPRACTICE SUITS.

Dr. SANGER, of Bangor, read a paper on "Malpractice Suits." It contained the statistics of all the malpractice suits occurring in Maine, during the remembrance of the present generation, which could be obtained, seventy in number. Of these seventy, six paid from \$100 to \$350, rather than stand trial. Of the remaining sixty-four, in nine cases only was a verdict obtained by the plaintiff. The total amount sued for was \$423,640. The total amount paid on the verdicts for damages was about \$6,500, in sums varying from \$103 to \$2,000. It was estimated that it cost the surgeons to defend these suits \$50,000, and the courts as much more. As for the plaintiffs, only seven out of the whole number were able to pay taxable costs, and very many of them were drunken and worthless persons. As some protection against these unjustifiable attacks, it was urged that we should have a law compelling the plaintiff to give bonds for taxable costs in case of failure to establish a case.

A committee was appointed last year to present this matter to the Legislature, but they reported failure. Another committee was chosen to present the matter again to the next Legislature.

Dr. L. W. PENDLETON read a paper on "Transmitted Tendencies." The subject was discussed in its physical, mental, and moral relations to the individual, and as to its more general effects upon the race.

## ANNUAL ORATION.

The evening session was devoted to listening to the annual oration by Dr. F. H. Gerrish, of Portland. The subject of the oration was "The Duties of the Medical Profession concerning Prostitution and its Allied Vices." The argument was that the only proper way to treat the social evil is to remove the causes on which it depends, and it was maintained that a lack of physiological and moral education is the chief of these. The prevalent ignorance respecting sexual physiology and hygiene results in vicious indulgences which are productive of the most baneful effects on the health of the people. Physicians, better than any others, can instruct the community on these subjects, and, by so doing, may accomplish in time the overthrow of prostitution.

## THIRD DAY—THURSDAY, JUNE 13TH.

Dr. F. C. THAYER, of Waterville, reported a case of extensive compound comminuted fracture of the skull. Recovery.

Dr. G. E. BRACKETT, of Augusta, reported a case of amputation of the thigh, done according to Lister's method, which healed without suppuration; also a case of chronic inversion of the uterus and two cases of ovariectomy.

## STATE BOARD OF HEALTH.

The Committee for the Establishment of a State Board of Health reported that much had been done during the year to enlighten and quicken the popular mind in sanitary matters by means of petitions, circulars, and lectures, and much assistance in the same direction had been given by the newspapers. Their failure before the Legislature was due, he thought, to economical reasons, rather than any opposition to the measure, and they were very sanguine of success another year. The same committee was continued.

## VAGINAL EXAMINATIONS IN THREATENED PUERPERAL FEVER.

Dr. G. F. FRENCH read a paper "On the Need of a Digo-to-vaginal Examination in Threatened Puerperal Fever, or after any Sudden Ill Turn following Parturition." A retroflexion of the uterus occurring a week after confinement simulated the invasion of puerperal fever, the rectification of the misplacement immediately aborting the symptoms. The case was complicated with a severe laceration of the cervix, which was completely healed in six weeks, without surgical procedure, by frequent vaginal injections of hot water, as recommended by Dr. Jacobi, of New York.

## OFFICERS FOR THE ENSUING YEAR.

The following are the officers for the ensuing year: *President*, M. C. Wedgwood, Lewiston. *Vice-Presidents*, A. J. Billings, Freedom; J. A. Donovan, Lewiston. *Treasurer*, A. S. Thayer, Portland. *Recording Secretary*, Chas. O. Hunt, Portland. *Corresponding Secretary*, S. H. Weeks, Portland. *Board of Censors*, F. H. Gerrish, Portland; O. A. Horr, Lewiston; L. W. Pendleton, Belfast; A. J. Fuller, Bath; D. L. Lamson, Fryeburg.

The next meeting is to be held in Portland, the second Tuesday in June, 1879.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, May 8, 1878.*

Dr. J. C. PETERS, PRESIDENT, IN THE CHAIR.

## VENTRICULAR HEMORRHAGE AND APOPLECTIC NEURO-RETINITIS.

Dr. AMIDON presented a specimen of ventricular hemorrhage associated with apoplectic neuro-retinitis, and gave the following history of the case:

The patient was an inmate of the service of Dr. Wm. H. Draper, in the New York Hospital. He led a temperate life, had years ago sore throat, sore eyes, and osteocopic pains, worse at night. Three years ago had cystitis, and has had œdema of the feet for years. Has for three months been complaining of numbness on the right side, more particularly in the right hand. He has also had twitchings of right side of the face. March 31st. 9 A.M. was in usual health. 2.30 P.M., fell from his chair unconscious, and was soon after admitted to the hospital. 3 P.M., completely unconscious and relaxed; pulse 98, respiration 54, temperature subnormal. 4.15 P.M., pulse 86, respiration 28. Urine found to be loaded with albumen and vesical epithelium, but contained no renal elements. The eyes were examined ophthalmoscopically; eyes half open, pupils widely dilated and irresponsive to light. Diffuse neuro-retinitis was seen in both eyes, and a large, fresh retinal hemorrhage in the right. 5.10 P.M., died, never having regained consciousness.

A few minutes after death the eyes were again examined. The media were perfectly clear. In the left eye was seen a diffuse neuro-retinitis. The vessels were tortuous, seeming to dip in and out of the retina, giving them a broken appearance. There was an old hemorrhagic extravasation on the macula, which had become pigmented; there was also a small hemorrhage above the disc, and small punctate hemorrhages along the course of the vessels. The outline of the nerve was effaced; the inner side of the retina was free from degenerative deposit, and apparently normal.

In right eye were seen two large, fresh extravasations

of blood, one overlapping the disc. There were also diffused and streaked hemorrhages elsewhere. In both eyes the arteries were small and veins large. During the post-mortem observation of the fundus, which occupied about half an hour, the large hemorrhages spread very much and coalesced.

A post-mortem examination of the head revealed hemorrhage in the cavity, and softening and laceration of the walls of both lateral ventricles. A small triangular clot was found in the fourth ventricle. On removing the eyes, retinal hemorrhages were found as diagnosed. The large, fresh hemorrhage was almost all fluid, and flowed out with the vitreous, thus showing it to be superficial, *i. e.*, just under the limiting membrane. The existence of diffuse neuro-retinitis was well shown by the opacity of the retina and fatty degeneration of the retinal cells.

Dr. SEGUIN alluded to the coincidence of hemorrhage of the retina and brain, referring to the statement of Charcot, that the true pathology of cerebral hemorrhage was due to a peculiar degeneration of the arteries, shown not only in the vessels of the retina, but in those of other parts of the body.

**ACUTE CATARRHAL PNEUMONIA (DOUBLE)—HYDROTHORAX—HYPERTROPHIC DILATATION OF HEART—VALVULAR ENDOCARDITIS (CHRONIC)—PERFORATION OF POSTERIOR LEAFLET OF AORTIC VALVES—HYDROPERICARDIUM—CIRRHOTIC AND FATTY LIVER—CHRONIC PARENCHYMATOUS NEPHRITIS.**

Dr. BEVERLEY ROBINSON presented specimens of the above, with the following abstract: J. L., married, laborer, thirty-seven years of age, born in Ireland, was admitted to Charity Hospital, April 15, 1878. Patient had an attack of acute rheumatism seven years ago, from which he entirely recovered. Since that time until July, 1877, he enjoyed good health. At that period he began to suffer from painful and frequent micturition, brought on doubtless by an attack of gonorrhea which he had three months before; patient has never had pain in his loins; his habits are intemperate. On admission, patient was extremely anemic and presented signs of general anasarca, which commenced two weeks before. The respirations were labored and exaggerated upon the left side of the chest posteriorly; there was a systolic cardiac murmur at the apex, the heart-beats being feeble, but regular.

*Urine.*—Sp. gravity 1012; contains granular casts, a moderate amount of albumen, some blood-corpuscles, bladder-epithelium, and triple phosphates. Patient was placed upon tonic treatment and jaborandi (fl. extract) in half-drachm doses *pro re nata*. Until April 27th he was doing well. On that day he had a severe chill, followed by elevation of temperature ( $102^{\circ}$ – $105\frac{1}{2}^{\circ}$ ), frequent respirations, and rapid pulse. Signs of catarrhal pneumonia of both bases became evident; the heart's action was violent, and a murmur was detected with the first sound at the base (aortic stenosis).

In spite of the free use of stimulants, most nourishing diet, moderate doses of quinine, and the repeated use of dry cups locally, patient gradually failed, and died on May 2d, at 6 p.m.

The autopsy was made by Dr. Spencer, with the results as indicated at the beginning of this history. The diagnosis prior to death had been complete and exact in nearly every particular except the condition of the aortic valves, which was as follows: "leaflets show chronic endocarditis; they are thickened, roughened, and irregular over their free surface, and covered by a new deposit of fibrin. Posterior leaflet is perforated, the opening being about the size of a

three-cent silver piece. The margins of this opening are irregular. It appears to be the result of an ulcerative process."

Dr. HEITZMANN presented an unique specimen, consisting of a benign intra-ocular tumor. There was no trace of retina, choroid, lens, or anything else save the sclerotic. Even this latter was exceedingly thin in different places, the result of encroachments of the growth. The tumor was a myxoma and was supposed to have originated in the vitreous humor.

**CYLINDRICAL-CELLED SARCOMA OF RECTUM—EXTIRPATION BY VOLKMAN'S METHOD.**

Dr. KEYES presented a cylindrical-celled epithelioma and a portion of the rectum removed by Volkmann's method. The patient was a lady of middle age, married, the mother of several children. She had enjoyed exceptionally good health up to two years before the operation, but during the latter period had suffered from symptoms which she had referred to the stomach, uterus, and finally to the bowels. Her disorders had been treated under the general name of malaria, with varying effect as to the relief of symptoms. Finally she came under the care of Dr. Keyes, with Dr. Van Buren in consultation, and an ulcerated cauliflower-like growth upon a hard base was recognized, completely encircling the rectum, commencing at about two and one-half inches from the verge of the anus and extending upward one inch. The tumor was movable.

An attempt was made to remove this mass by ligature. Its base all around the gut was enclosed in a series of loops, accurately placed by transfixing the healthy tissues of the rectum, starting below, passing underneath, and coming out above the indurated portion.

In ten days all the ligatures had separated, bringing away the tumor. In a month a relapse was found to have occurred, and to be extending rapidly at one portion of the cicatrix. Extirpation of a portion of the rectum including the tumor was therefore determined upon.

The sphincter was cut posteriorly, and all the tissues up to the tip of the coccyx, the incision extending about one and one-half inch up the gut. Here a circular cut was made through all the tissues of the rectum, and the latter dissected out all around to a point considerably above the tumor.

The vagina was not adherent to the cicatrix. The peritoneum was pushed off the gut in front and not opened. Posteriorly a hardened mass of glands and connective tissue were found in the hollow of the sacrum, attached to the rectum. This was dissected from the gut, pulled down, and finally cut off at a point where the tissues seemed healthy. This piece measured over four inches, and the gut appeared to be separated posteriorly as far as the promontory of the sacrum. In fact, by measurement, the gut was bared posteriorly to a height of more than ten inches. The circular cut above the sphincter was at one and one-half inches from the verge of the anus; two inches of gut had been included in the first ligatures, three more were taken away by this operation, making six and one-half, and the piece of hardened connective tissue extended more than four inches farther up. The peritoneum was not opened, but torn off and pushed aside.

Drainage-tubes and strands of horse-hair were put in on each side, and two irrigating tubes arranged to run in drops were inserted, connected by a double stop-cock with a fountain-syringe. These were all sutured into place, the drainage-tubes being brought



not out of the wound, but out of holes especially punched for them through the integument, near the anus. The gut was brought down and united all around with catgut, all bleeding points had been ligated with the same material, the operation had been performed under a spray of thymol in water, one part in the thousand, and constant irrigation was kept up during three and a half days with the same solution.

Irrigation was rendered easy without wetting the patient, by the employment of a very ingenious device invented by Mrs. M. Bradley, of Morrisania, called the invalid drawers. It resembles the Eureka diaper, shuts in all the pelvis and thighs in rubber, has a perforated horse-shoe shaped inflated cushion beneath, through which leads a funnel-shaped rubber prolongation and a tube which has to be carried through the mattress into a suitable vessel beneath the bed. The mattress may be sewed up after the drawers can be dispensed with.

Irrigation was very simple by the aid of this apparatus. The fountain-syringe was hung to a chandelier at the foot of the bed, and the rubber tube carrying the thymol solution was trained under the bed, up through the perforation made in the mattress for the invalid drawers, and by its two droppers into the wound. The disinfecting solution trickled unceasingly through the wound for four nights and three days, and was only then discontinued because the bowels moved freely of their own accord and irrigation was no longer considered necessary. The patient and her bed were kept perfectly dry through all this period.

Morphine was used freely, and a milk diet maintained. There was no peritonitis whatsoever, but considerable flatulency was complained of, due, it seemed, to the presence of a sponge which had been left in the vagina for the purpose of effecting pressure, but which really interfered with the discharge of the accumulating gases, and tended to cause the upper segment of the gut to be pulled away from the anus. To this mistake Dr. Keyes ascribed the failure of prompt union over the posterior and lateral portions of the wound. The front part healed with very little separation of the edges of the mucous surfaces. The gases escaped freely the moment the sponge was removed.

The catheter was introduced regularly. No accident occurred. The temperature ran up to  $102\frac{1}{2}^{\circ}$  within twenty-four hours after the operation (due probably to shock and ether), but fell at once to about  $100^{\circ}$  and remained there until the seventh day, when it rapidly rose to above  $102^{\circ}$ . The next morning menstruation appeared (being a week too early), and the temperature fell to  $99^{\circ}$ .

On the twenty-first day the patient took a long ride in the park, and at the end of four weeks left town for the summer, passing formed stools and having fair control of the bowels, unless their contents were liquid. At the date of her leaving the city there was still some granulating surface unhealed. The levatores acted powerfully and seemed to substitute the sphincter. The latter did not act well, owing to the splice which was put into it by the posterior incision, which healed by granulation. There was no return of the disease, and only a moderate cicatricial tightness at the line along which the gut had been incised. It is not yet time to decide how perfect the patient's control over the bowel will be, but Dr. Keyes thought that it promised well.

The specimen showed a linear cicatrix encircling the gut, and at one portion of it a broken-down ulcer-

ated surface an inch and a half long, an inch wide, and an inch thick, very hard beneath.

#### MEMBRANOUS COLITIS.

DR. PUTNAM-JACOBI exhibited shreds of membrane which had been discharged per rectum for a long period, and as often as once daily, but never at a less than two days. The patient was an hysterical female. For a number of months she suffered no inconvenience to her general health, but lately she became debilitated, and suffered from various symptoms of dyspepsia. The passage of these shreds of membrane was never attended with pain, nor was any pain developed on pressure over the region of the colon. The condition of debility suggested the waste of albuminous material. A microscopical examination of the membrane corresponded in its results with those obtained by Whitehead and Da Costa; that is, this membrane did not show any fibrillation, nor did it respond to the chemical tests for fibrine. On the contrary, it coagulated in compact masses on the addition of alcohol, very nearly dissolved in a solution of chloride of sodium, and dissolved completely in dilute nitric acid. In a word, it corresponded in appearance and by tests to mucine. The principle of treatment which suggested itself was the checking of the waste of albuminous fluids. The patient was accordingly placed upon a milk diet with iron, five drops of the tincture every hour for five days. She was kept upon an exclusively milk diet for a fortnight. A week after this treatment was commenced the discharge of membranes ceased, and at the end of a month she expressed herself as feeling better than she had for three years before. At the time of reporting the case the patient had not passed any more membranes for three months, and was suffering merely from slight dyspepsia.

DR. PETERS stated that he had seen a case accidentally cured by a teaspoonful dose of tincture of iodine, which had been administered by a nurse.

DR. SEGUIN referred to a case in which every remedy failed until pregnancy occurred, since which time the disease had not returned.

DR. CARPENTER had a case in which the symptoms occurred at intervals for over two years. When the patient came under his care he recommended that she should lie in bed. The discharge ceased in one week, and she remained perfectly well.

DR. BRIDDON alluded to a case which occurred to him twenty years ago, in which large sheets of membrane were discharged. The condition was associated with aneurism of the arch of the aorta, but disappeared without treatment.

DR. LOOMIS knew of one case of the kind that entirely recovered by simple change of residence.

#### INTRA-CAPSULAR FRACTURE OF FEMUR.

DR. L. A. STIMSON exhibited an intra-capsular fracture of the femur, removed from a man sixty-five years of age, who died as the result of that and other injuries sustained by a fall down-stairs. He arose unassisted after the accident, and walked several yards. On examination, the left thigh presented half an inch of shortening, was slightly abducted, and foot slightly everted.

At the autopsy a large amount of ecchymosis was found in the substance of the vastus externus, with commencing suppuration. The fracture was at the junction of the head and neck, was almost transverse, and the capsule was not open at any point. Upon the inferior surface the periosteum was preserved.

#### BONY ANCHYLOSIS OF THE ELBOW-JOINT.

Dr. Stimson also presented an ankylosed elbow

removed by operation at the Presbyterian Hospital, May 1st. The patient was a lady 27 years old, who gave the following history. At the age of 12 she began to suffer from inflammatory rheumatism, which lasted for three years, involving many of the articulations and the bowels very severely. At the end of the three years there was complete loss of motion in both elbows, both knees, and the four middle phalangeal articulations of both hands. The right wrist possessed flexion and extension, but no rotation; the left wrist a slight amount of rotation, but no flexion; right ankle stiffened, hips and shoulders free. Harsh, bony crepitus in the wrists and right ankles, carpal bones somewhat thickened. This condition has persisted for twelve years, notwithstanding frequent efforts to restore mobility by forced flexion and extension without the aid of anesthesia. She came under my care in January last. After many attempts with partial, but always temporary success, to break up some of the minor articulations, two attempts were made, under ether, to straighten the right knee; both failed absolutely, but the joint was slightly painful for twenty-four hours after each attempt. Hot baths and frictions were used upon both elbows, and as much force as the patient could bear applied daily to them in the direction of flexion. Both joints became gradually more and more sensitive to these efforts, and as this sensitiveness was rather more marked in the right than in the left elbow, it was determined to break up that one under ether. This was easily accomplished, the tissues parting with a loud snap, and the joint becoming immediately freely movable without crepitus. The fact that the motion was in the joint, and that no bone had been broken, was verified by several surgeons. Notwithstanding my efforts to oppose it, the range of motion decreased steadily until it became almost inappreciable. Ether was again administered, and the joint again broken up. This time there was no loud snap, but a gradual tearing; the range of motion was not quite as great as after the first rupture, and it was less free, the parts moving stiffly upon each other. Two weeks afterwards the joint had again become stiff, and another repetition of the attempt proved quite fruitless.

Excision of the left elbow was then resorted to, by the sub-capsulo-peritoneal method and the median longitudinal incision. The specimen consists of the condyles of the humerus, and the portions of the radius and ulna lying above the base of the coronoid process of the latter. The humerus and ulna are united by complete bony fusion, without any alteration in the form of either bone. The union between the humerus and radius is by a mass of fibrous bands one-fourth of an inch long, and a bony rim of new formation one-eighth of an inch high and thick occupies the upper edge of the corresponding articular surface of the humerus. A thin osteophyte one-fourth of an inch high and one-eighth of an inch wide juts directly outward from the external edge of the same surface, and is in contact with a similar growth upon the edge of the head of the radius. (Since the presentation of the specimen a sagittal section has been made through the humerus and ulna, and shows the bony fusion to have been complete, not a trace of the articular line remaining.)

In view of the fact that most authorities deny that articular rheumatism is ever followed by bony ankylosis, Dr. Stimson asked for an expression of the opinion of the Society concerning the nature of the original disease.

He suggested as a possible explanation that the ulna and humerus were originally united by fibrous bands

similar to those now uniting the humerus and radius, the result of an effusion into the joint during an attack of articular rheumatism. As a result of the close application of the two articular surfaces to each other, these bands were short, and the prolonged immobility favored their transformation into bone.

Drs. BRIDGES, PUTNAM-JACOBI and LOOMIS were of the opinion that ankylosis did occur in arthritis deformans, and Dr. Heineman related a case in point occurring in Roosevelt Hospital, where every joint of the body was ankylosed from the toes to the buttocks.

Dr. SEGRIN remarked that inasmuch as in Dr. Stimson's case the position of the olecranon was displaced, the idea of some previous injury suggested itself.

## Correspondence.

### ON THE TREATMENT OF DYSPEPSIA—CHRONIC GASTRIC CATARRH.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I am induced to offer the following remarks by the perusal of the very able paper on this subject from the pen of Dr. Nefel, which appeared in No. 396 of THE MEDICAL RECORD. My motive is twofold: First, to contribute my mite in corroboration of all Dr. Nefel claims for the treatment; second, to refer briefly to a method which the doctor includes in a general summary of remedies that had been vainly tried in his cases, viz.: "The Electrical Bath."

My attention was first called to the subject by an article of Dr. C. Fürstner,\* and shortly after by a communication from Dr. Nefel himself,† which were simultaneously republished in the *Allgem. Med. Centralzeitung*, No. 42, 1876. Since reading these articles, a little over two years ago, I have employed the method suggested, viz.: *faradization of the stomach*, in quite a number of suitable cases, and, it gives me pleasure to state, with results unvaryingly the most gratifying. In carrying out the treatment, however, I did not by any means adhere strictly to the details as laid down in either of the articles above referred to, but adapted my proceedings rather to the main object sought to be obtained by the faradic treatment, to wit: contractions of the muscular coat of the stomach. To accomplish this efficiently, it is necessary only to be familiar with the anatomy of the parts, and the mode of action of the remedy under discussion. I found it indeed impossible to carry out any stereotyped plan, not only because the electro-contraction of different portions of the abdomen varies considerably in different individuals, but also because we find—more especially in persons suffering from trouble of the alimentary canal—points of tenderness that forbid the application to them of a current of sufficient tension to cause muscular contractions. I will refrain from wearying the reader with cases, of which those given by Dr. N. are so typical that I should be guilty of tautology in adding to them. I may be permitted to state, however, that all, or almost all, of my patients were elderly persons.

With reference to the "Electrical Bath," I wish simply to protest against its inclusion among "inefficient remedies," and I feel assured that, were Dr. N. per-

\* Ueber die Anwendung des Inductionsstromes bei gewissen Formen der Magenvergrößerung (Berl. kl. Wochenschrift, No. 11, 1876).

† Die Behandlung der Magenectasien beim Chronischen Magencatarrh (Centrabl. f. d. med. Wissensch., No. 21, 1876).



sonally familiar with my method of administering the bath, he would not have thus unqualifiedly included it. I claim for it—with full susceptibility of proof—that by its means the stomach can be made to contract quite as well as by local methods, while its effects on any coexisting constipation are more pronounced and complete. The general tonic effect of the bath, moreover, forms no insignificant adjuvant in an affection that is always attended with general debility and loss of functional powers. GEO. M. SCHWEIG, M.D.

20 W. 21ST STREET.

## ON THE HYPODERMIC INJECTION OF DIALYZED IRON.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In a previous issue of THE MEDICAL RECORD, June 15, 1878, Dr. W. M. Kemp reports a case of "Abscess following the hypodermic injection of dialyzed iron." As I have recently used the same preparation in a similar manner, but without producing any accident or unpleasant symptoms, I thought it proper to report two cases of anemia which lately came under my own observation. It is now a month since I gave the last injection to the first case, and about two weeks to the other one. At no time have they caused or produced any bad results. The only objection I can find with it, that it causes at the time a great deal of pain, followed by soreness and tenderness, also swelling and redness; and on two occasions the iron seemed to remain unabsorbed, as shown by a black or rather bluish discoloration, which still remains, giving to the parts the appearance as though they had been tattooed; also a hard feeling to the touch, but no soreness. The pain and swelling, however, have soon subsided by the constant application to the parts of cold water. In one case I gave seven hypodermic injections of Wyeth's dialyzed iron, at first in doses of  $\mathfrak{m}$  x., diluted, then  $\mathfrak{m}$  xv., and lastly  $\mathfrak{m}$  xx. undiluted. In the other case I have given ten injections consecutively, one each day, in the same doses as above.

1ST CASE.—Mrs. M. C., aged 35. Had been subject to menorrhagia for a long time, so much so that she was obliged to keep in bed for weeks at a time. She now put herself under my care, and after a few months of proper treatment she got better, but naturally became very anæmic from the loss of blood. Having used some of the preparations of iron, combined with other tonics, with very little success, I decided to try the hypodermic injection of Wyeth's dialyzed iron, which I did, as first recommended by Prof. Da Costa, and in doses as above stated, with the most happy results.

2D CASE.—This is a young married woman, who has been under my care for several months, suffering with hysterical epilepsy, the result of some uterine and ovarian trouble, which, unfortunately, cannot be cured. She also suffers with severe uterine neuralgia, so that frequently I am compelled to give her, hypodermically, very large doses of Magendie's solution; even then she is not able to get a good night's rest. All this has produced anæmia and a general debility of her whole system.

Some time since I gave her, for ten days, the dialyzed iron hypodermically, with some apparent benefit, and probably I will use it again in her case, if indicated. It is now two weeks since I gave her the last injection. I must state here that this patient requested me, when I stopped, to continue giving her these injections, notwithstanding it caused for a time

a great deal of pain, but she said they made her feel better and stronger. This patient has been seen by Dr. Shaw and Prof. Skene, of this city, in consultation with me.

In conclusion, I would add that the profession is greatly under obligation to Prof. Da Costa for calling attention to this new and most promising way of treating rebellious and severe cases of anemia. As to Dr. Kemp, I trust the report of these two cases will encourage him sufficiently to try again the hypodermic injection of dialyzed iron.

J. J. LAMADRID, M.D.

258 FRANKLIN AVENUE, BROOKLYN.

## MEMBRANOUS TONSILLITIS.

TO THE EDITOR OF THE MEDICAL RECORD.

A FEW days since I attended a patient with what I diagnosed to be diphtheria; but taking into consideration the history of the case, and its favorable course, I sometimes doubt the accuracy of the diagnosis. The patient was a boy four years old, and when I was requested to see him, his father said his son had a white patch in his throat. This I found to be true. Besides, I could not detach it by ordinary force. It was about the size of a twenty-five cent piece, very white and hard, and located on the right tonsil. The patient had fever, particularly at night, and he got along so well that he was able to be up through the day.

For the fever I used sedative doses of cinchonidia, for a local remedy chloroform of potash, and four drops of the mur. tr. iron every three hours internally, because it is endorsed so highly for diphtheria. In addition he got whiskey freely after the first day or two.

As there had been no diphtheria in town for some months, I asked Dr. Hanna to see the case with me, as I might be mistaken in its diagnosis. He confirmed my views as to the disease. However, the child made such a rapid recovery that the question arose in my mind, is an exudative or croupous inflammation of the tonsil necessarily diphtheria? There was no laryngitis because the voice was clear. I discovered no membrane anywhere except on the tonsil, and that came off in about seven days.

The description of tonsillitis which I have read in the text-books refers to that variety which frequently ends in suppuration; but there is no membrane present, except that which often accompanies pseudo-membranous croup or diphtheria; but my patient's larynx was sound through the course of the disease.

Now, we have croupous and catarrhal pneumonia, croupous and catarrhal bronchitis, croupous and catarrhal laryngitis, and I see no reason why we may not have croupous and catarrhal tonsillitis. Though so far as I know the books do not refer to exudative tonsillitis, the history of my patient induces me to think he had what I shall term membranous tonsillitis, but exudative or croupous tonsillitis perhaps would be equally as descriptive.

The mucous membrane of the air-passages is subject to two forms of inflammation, namely, croupous and catarrhal, and I believe the same thing occurs in the tonsil. However, it seems that writers speak of membranous inflammation about the tonsil only in connection with membranous laryngitis or diphtheria, and not as a separate disease. If it be established that there is such a thing as distinct and independent exudative inflammation of the tonsil, then that will be another point against the identity of croup and diphtheria.

JOHN L. COOK, M.D.

HENDERSON, KY., June 7, 1878.

## ON THE USE OF OPIUM IN PARTURITION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In reading the discussion which took place at the Academy of Medicine, on May 2d, I was especially interested in the views advanced relative to the use of morphine in labor, and felt it to be my duty to contribute the results of my experience (although it is that of a "country doctor").

From the time it was more especially urged upon the profession, to wit: when the distinction was made between the contraction of the circular and longitudinal muscles, I have invariably and unhesitatingly administered it when the indications seemed to demand it, and I believe, from a large experience, that the theory that it exerts an injurious influence upon the fœtus is without foundation.

In its use I have invariably, when not prevented by convulsions or other good reasons, pursued the course of Dr. Caro, that is, introduce it by the stomach rather than hypodermically, and I cannot believe, from the most careful observation of its effects, that it exercises the slightest injurious influence upon the uterine contents.

With such an experience, backed up by so good a reason for its use as is that advanced by Dr. Carson, to wit: "The immense value of opium in obstetric practice would prevent us from materially modifying our method, even in the face of the *facts* (italics mine) presented by those who believed there was danger of producing deleterious effects upon the child," I especially desire, at this time, to raise a voice of warning against the *indiscriminate* use of morphia hypodermically, whether it be in the practice of midwifery, medicine, or surgery.

Undoubtedly, when administered in the latter manner, as it was recommended by the originator, it is of invaluable aid to us, but the practice pursued by a large number of the profession, when called to a case of disease in which there is more or less pain, of taking out the hypodermic syringe and making the *morphia solution then and there, extemporaneously*, is to me reprehensible as injurious, and often destructive to the patient. I know whereof I affirm: not, thank heaven! from personal experience, but from positive observation. I only beg that those medical gentlemen who are so fond of doing business in that manner will publish their *fatal results* from even much smaller doses, administered in that manner, than they claim to inject.

D. COLVIN, M.D.

CLYDE, N. Y.

## A MISQUOTATION FROM HORACE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I take the liberty of calling your attention to some inaccuracies of singular interest in the quotation from Horace with which Prof. Barker begins his otherwise admirable tribute to the memory of the late Dr. Peaslee, that has recently been published, and I suppose widely distributed. These inaccuracies can be most readily understood by placing the quotation and the original side by side. The quotation reads as follows:

"*Pallida mors æquo pulsat pede pauperum tabernas  
Regumque turres. O beate Sesti,  
Vita summa brevis spem non tetat inchoare longam.*"

On referring to the works of Horace, one finds that

it is taken from the Odes, Book I., Carm. IV., verse 4. The original reads as follows:

"*Pallida Mors æquo pulsat pede pauperum tabernas  
Regumque turres. O beate Sesti,  
Vita summa brevis spem non tetat inchoare longam.*"

Or, omitting the last half of the second line for the sake of embracing only the words intended to be quoted, the following becomes the text, which also should have been that of the quotation itself:

"*Pallida Mors æquo pulsat pede pauperum tabernas  
Regumque turres . . . . .  
Vita summa brevis spem non tetat inchoare longam.*"

Now, the inaccuracies in question consist: 1, in substituting a nameless metre, which the poet did not use, for the elegant Archilochian metre which he did use (vide Lord Lytton's *Horace*, p. 57); 2, in substituting the adverb *non* for the pronoun *nos*, in the third line, whereby the meaning of the passage is utterly perverted into something which the poet did not intend to say; and, 3, in some errors of orthography and punctuation which, however, are of minor importance, inasmuch as they can be seen at a glance, on simply inspecting the quotation, without taking the trouble to compare it with the original. What I object to in the inaccuracies above-mentioned is, mainly, that they pervert the original in respect to its *form*, on the one hand, and its *sense*, on the other. Surely, if a quotation from a great writer, and especially from a great poet, is worth making at all, whether for the embellishment of a discourse or any other purpose, it should, at least, be accurate in these essential or vital points.

HORATIUS VINDELL.

NEW YORK, JUNE 22d.

## THE TEACHING OF NERVOUS DISEASES IN VIENNA.

(The following letter was addressed by the writer to a medical friend and teacher in this city, by whose permission it is published.—En.)

Dear Doctor—Your kind letter came to hand as a prompt answer to mine, which reminds me that I must not longer delay my reply. I sent to you some days ago a copy of the University Calendar, but fear that it will not give you much of an idea of the manner in which the clinics are conducted here.

In regard to your questions about certain courses, I can say, that Benedikt's course is a clinical one, conducted at the Poliklinik (he has but one course, and not two, as described in the calendar), one hour and a half every day, except Sunday. The whole affair reminds me very much of the Manhattan Hospital. The room is about the same size, and the number of patients about the same; perhaps a few more than we had at the Manhattan. He has an assistant, who keeps a record of the cases and who writes prescriptions, and another who uses the batteries, while Prof. B. himself makes all the examinations of the patients, together with the treatment after his diagnoses, which latter he never fails to make; he also often speaks at length of the affection illustrated by the case before him. His hearers number at the outside not more than five or six, who take seats about his table and examine the patients, and ask questions in a very social way. From what I have seen of his clinics, I cannot say that I am satisfied with them, as far as he is concerned; he often spends a great deal of time on what seems to me unnecessary preliminaries, and at others, hurries



over what seem to me important cases. His diagnoses are to me often of the most surprising character, and not seldom unwarrantable, from my standpoint. Of late he has been interested in cranial mensuration, and explained to us one day his complete method. It took him nearly two hours to measure one head. The phrenological "bumps," in number, are nothing compared with the cranial measurements which he takes. I found more use for trigonometry than I have had since my school-days. His method may be a valuable one for the determination of the cranial form and capacity, but it is certainly far from being a very practical one.

Of the class of cases which he has at his clinic, I can say that they average about the same as at the Manhattan, perhaps not as many paralytics, and more cases that are somewhat outside his specialty, as articular affections and common forms of acute diseases. Prof. B. puts great stress upon galvanization of the sympathetic in a great variety of diseases, particularly in neuralgia of the fifth pair. I have not been able to follow out enough of his cases to determine for myself the result, but his report is certainly very flattering. I thought sometimes, while I was at the Manhattan, that we used to slight the patients as to the time employed in applying electricity, but the brief manner with which they dispose of them here astonished me, and make me doubt the efficacy of their treatment. At Prof. Fieber's course the same hurried method is adopted, and I was unable to learn from him anything that I had not already been taught under your direction. Dr. Fieber's is purely a course on electro-therapeutics, his hearers number four or five, and his patients are brought in to illustrate the particular form of application as he wishes, while Benedikt takes cases as they come. Rosenthal has a similar course, which is somewhat better. With the latter and with Fieber the students make the applications once or twice themselves to learn the methods.

Obersteiner's course was a systematic course of lectures before four students, myself included, going over the ground of the histology of the nervous system, normal and pathological, well illustrated by plates and a great number of fine microscopical specimens. The physiological part was combined with the anatomical as different parts of the nervous system were taken up, and was illustrated by a number of experiments on different animals, such as frogs, pigeons, hens, rabbits, guinea-pigs, etc., which, of course, brought us into the pathological division. Many of his experiments were of a common character, but some were very good, such as the Hitzig experiments upon the cortex, etc. You can readily see that it was an extensive ground, but, considering the time, he succeeded very well, and I found it a good review of the subject. Dr. Obersteiner is a young man, but seems to have an extensive knowledge of the literature of the subjects on which he spoke, and his work showed that he was not deficient in the practical part of the same. He is very careful, and conservative in his views as well.

Usually his animals were operated upon before the lecture, when it was possible, in order to save time, so that we did not have much actual experience in making or assisting in the operations.

At Prof. Meynert's clinic there are usually about ten or fifteen students, not more. He has taken the subjects up in pretty regular order, and has brought his cases to illustrate. He has gone over the different forms of mental diseases, epilepsies, chorea, hysteria, spinal diseases, to some extent, and is now upon forensic medication, and has also nearly finished the ana-

tomical and physiological lectures. These lectures he attempts to illustrate by crayon sketches on a board; they are not quite as rapidly produced as are Nuss's, but are about as humorous. In short, he is not an artist, and does better when he brings his microscopes into use.

W. R. B.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 23 to June 29, 1878.*

TAYLOR, M. K., Capt. and Asst. Surgeon. S. O. 123, C. S., Dept. of Texas, amended to enable him to avail himself of his leave on June 20, 1878. S. O. 128, Dept. of Texas, June 19, 1878.

CORSON, J. K., Capt. and Asst. Surgeon. Assigned to temporary duty at Fort Whipple, A. T., S. O. 64, Dept. of Arizona, June 13, 1878.

AINSWORTH, F. C., 1st Lieut. and Asst. Surgeon. To accompany Co. "B," 8th Infantry, from Fort Whipple to San Francisco, and upon completion of this duty return to proper station. S. O. 64, C. S., Dept. of Arizona.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 29, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| June 22, 1878.... | 0             | 3              | 73             | 1                          | 47       | 39          | 0          |
| " 29, 1878....    | 0             | 2              | 74             | 3                          | 23       | 31          | 0          |

NEW YORK DISPENSARY.—The report of this institution is at hand, and shows that while the funds have been administered with liberality and a spirit of true benevolence, economy has been practised with the best results. The ten-cent system with venereal patients has been cheerfully responded to, and during 1877 \$1,007.05 was received from this source, including \$241.30 for bottles. During the past year 43,623 persons received medical attendance, and the trustees make the pertinent inquiry, in view of the prevalent abuse of medical charity, how many of these came properly under the head of dispensary patients. We congratulate the patrons of this institution on the public spirit of its trustees in boldly facing this question, and we look hopefully to the future when the trustees of all charitable medical institutions will strongly co-operate with each other in this matter, which is pregnant with great good for the deserving poor.

NORTH-EASTERN DISPENSARY OF NEW YORK.—The sixteenth annual report shows that during 1877, 21,438 patients were treated, who received 57,021 prescriptions. The total amount expended was \$2,648.65, which makes an average of twelve and a half cents for each patient. Considerable saving has been effected to the institution by the use of sulphate of cin-

chondria for all cases in which sulphate of quinine was formerly used. The former drug can be obtained at a comparatively low figure, and the physicians find it equal to the more expensive article. The plan of requiring those applicants *who are able* to pay ten cents for a ticket, entitling them to one month's treatment, is said to give more satisfaction to the patient than the old method. We view with pleasure as in the previous instance this co-operation between managers of charitable medical institutions and the recipients, to dispense, to the best advantage for all, the funds advanced by the benevolent for the sick poor.

**HOTEL PHYSICIANS.**—The Saratoga County Medical Society, at their annual session, on the 4th of June inst., unanimously adopted the following preamble and resolution:

*Whereas*, There are certain members of the regular profession now in good standing in the State Medical Society, as well as in county societies, who annually visit Saratoga Springs for the purpose of practising medicine, and by their questionable measures in seeking practice to the detriment of local resident physicians; therefore, be it

*Resolved*, That we, as members of the County Medical Society, do condemn the practice above mentioned, as contrary to the spirit of our code of ethics.

*Resolved*, That a copy of the foregoing preamble and resolution be sent to THE MEDICAL RECORD, of New York, the *Medical Times* and *Medical and Surgical Reporter*, of Philadelphia, and that a copy be sent to Dr. T. B. Reynolds, delegate to the American Medical Association, with the request that he will see that it is brought to the notice of the society above mentioned.

C. C. BEDELL, M.D.,  
Secretary.

**HYDROPHOBIA AND SEXUAL EXCITEMENT.**—As to the experimental production of rabies—its generation *de novo*—experimental veterinary science, and the pathological observations of competent veterinarians in Europe, furnish some facts worth recording. Fleming reports the case of a cross-bred spaniel, five and a half months old, which had never left its mother, never went out, and was naturally very quiet. When the mother became in rut, the young dog, excited by the odor, became extremely agitated, and at last refused food. Three days later, being asleep, it wakened suddenly, and flew savagely at an attendant. When taken to the infirmary of an eminent veterinary surgeon in Paris, rabies was diagnosed. The animal refused all food for the next three days; on the fourth, rabietic paralysis supervened; on the fifth, it died. Another case of what Fleming styles spontaneous rabies, occurring under similar conditions, is noted in a late number of the *Veterinary Journal*, London. In a box adjoining the kennel of a male was placed a female in rut, the effluvia from which caused the most ardent venereal excitation. For fifteen days—placed in such tantalizing proximity—the unfortunate animal manifested the most extreme agitation, and finally went furiously mad. Similar results have been produced experimentally by confining males near a female in rut, particularly by M. Toppolin, who describes them as so constant and decisive as to leave no room for doubt as to the agency of intense sexual or other excitation in producing rabietic madness. It is not an unfamiliar fact that rabies have been experimentally produced in the inferior animals by inoculating them with man's saliva, as well as with the saliva of dogs not rabid. A guinea-pig thus inoculated became subject to violent convulsions, which could be excited at pleasure by

dashing a little water at him. A rabietic pig, which lay torpid under the severest beating, could be excited to convulsions at pleasure by flinging a piece of white paper in its face.

**A NEW UTERINE SUPPORT.**—Dr. O. E. Herrick, of Greenville, Michigan, thus describes a new uterine support which he has devised: "It consists of a soft rubber ring with a silver wire stem, and is attached to a web belt by elastic cords crossing each other through the protruding end of the silver wire stem, making it both easy to wear and quite convenient to apply. The stem, as stated above, is a small, solid silver wire, attached to the ring on either side, and drawn tight enough to imbed the wire into the rubber ring deep enough so that it cannot irritate the uterine neck; it then comes down in two arms to about one-half the length of the vagina, when the two wires are brought together and twisted, thus forming the stem with a little loop of the wire left at the bottom for the elastic cords to pass through. This stem is no larger around than a small knitting needle, and does not inconvenience the patient a particle, neither does it in any way interfere with the necessities of nature. In fact I have several patients who have worn it for two months without being removed. After this statement perhaps some one will ask if it is not uncleanly to wear it so long without being removed? We think not, when we remember that there is no cap to catch the secretions, and that the vagina can be daily washed with the syringe without removing the instrument.

I have used this simple apparatus for about five years, and have found that it is just as useful in cases of retro- or antelexion, retro- or anteversion as in simple prolapse, and for this reason. The soft rubber ring fits up into the cul-de-sac of Douglas posteriorly and close around the neck of the uterus anteriorly, thus completely encircling the uterine neck; and being made of soft rubber, it clings by its elasticity sufficiently tight to prevent any of the above-named displacements; and should the uterus be heavy enough to tip over and take the ring with it, from laxity of the vaginal walls, the silver wire stem would *still* hold it in place. Its introduction is as easy as a simple rubber ring. Put the index finger against one side of the ring and push it up in front of finger until it reaches the cul-de-sac, then push the other side up in front of the neck leaving the wire stem to itself until the ring is in its place, when it can be easily straightened if it has become bent.

Another item of importance is its cost. Instead of costing from eight to sixteen dollars, as most instruments of the kind do, it will not cost over as many shillings."

**LEAD-POISONING BY FLOUR.**—Dr. Alford details the particulars of a local outbreak of lead-poisoning, which occurred in one part of the Taunton Rural Sanitary District, but in houses far apart. He analyzed the water, cider, preserved fruits, etc., but without detecting any lead. On careful inquiry, however, he found that the families affected had one thing in common, viz.: they all had their flour from the same mill. An analysis of this flour showed the presence of lead, and an examination of the mill revealed the fact that the holes in the stones had been filled up with lead. The lead was removed, and the disease gradually disappeared. Some of the cases were of a very severe form. It appears, on further inquiry, that it is by no means an uncommon thing for the holes in mill-stones to be filled with lead, a fact which is worth remembering.

DR. SEGUN'S LECTURES will be continued the latter part of the present month.



## Original Lectures.

## EXTIRPATIO RECTI (VOLKMANN) FOR CANCER, WITH CASES.

By W. H. VAN BUREN, M.D.,

PROF. SURGERY, BELLEVUE HOSPITAL MEDICAL COLLEGE, ETC.

THE above designation, in common use by the Germans, will serve to distinguish the operation, remarkable for its thoroughness and for its details, rather than for originality in method, which is now on trial as a remedy for a disease usually regarded as incurable. It implies free and complete removal, by amputation or excision, of as much of the lower bowel as may be required to extirpate cancerous degeneration limited to this part. It is the proceeding advocated by the able surgeon whose name I have connected with it, as promising better results than any hitherto attained. The reports of success which he has given us in a recent paper,\* backed by his sound surgical reputation, have induced me to advise the trial of this operation in several recent cases. I append notes of these cases as a contribution towards a better knowledge of the proceeding, simply as regards its feasibility and safety; for its value as a remedy, we must await results.

It is to be remembered that Lisfranc, who first popularized this operation in 1826, claims to have relieved six out of his nine cases. His imitators, according to Velpeau, hardly did as well; and the operation has met with scant favor in England and this country, where isolated cases are recorded at long intervals, which simply demonstrate its feasibility.

In Germany Prof. Schuh published, in 1868, some better results. Esmarch tells us that Billroth examined a woman of 58, from whom Schuh had removed a circular (*sic*) cancer four years before, and failed to find any evidences of a return of the disease.

The objections to the operation, heretofore, have been the difficulty of removing the *whole* disease without endangering the peritoneum, of which a wound has been regarded as mortal; the danger arising from bleeding, and the uncertainty as to its control; and the doubt as to subsequent ability to retain the feces. To these may be added the feeling of general hopelessness of curing cancer by a measure which looks only to its local removal.

Schuh's improved success may be ascribed, in part, to the increased advantages he derived from *anesthetics*; Volkmann attributes his own still better results to the additional advantages of improvements in drainage, and of *Listerizing* † with strict attention to details, both in operating and in subsequent treatment.

It may be of interest to give an abstract of Volkmann's views, and some of his results. He has seen three permanent cures by early removal of undoubted cancers of the rectum, and, in a number of cases, the return of the disease has been delayed for a length of time rarely, if ever, seen before in cancer—six, five, three years. One woman died eight years after operation, without *local* return, probably of cancer of the liver. In another case of total extirpation, eleven

years ago, the patient has had two relapses—the disease having reappeared at the edges of the new anus—and she is now (1878) strong and active. These results justify his conclusion that the removal of cancer of the rectum is not merely a palliative operation; certainly, *if performed early*, the prognosis he regards as good. He considers cancer of the rectum to be less malignant, slower in returning after removal and in generalizing itself in the system, than cancer developed in other localities.

As to details in dressing, besides sewing drainage-tubes in the wound between the sutures which attach the healthy "stump" of the rectum to the edges of the external incision, he also practises *atra* drainage, by making a puncture beyond its edges on either side, and carrying catheters up to the extreme limit of the cavity from which the disease has been removed, always outside of the rectum. Through these he injects an antiseptic solution at intervals, or, still better, connects an irrigating apparatus with them, by which, for the first five days, or until danger is past, a constant small stream (regulated by a dropping-tube) is kept up through the space around the new rectum. If the peritoneal cavity is opened during the operation he at once substitutes salicylic acid for the carbolic, places a well-disinfected sponge against the opening, continues the operation, and, when the tumor has been removed, dilates the main wound with Sims's speculum, and closes the peritoneal opening with carbolized catgut sutures. In one case where he opened the Douglas cul-de-sac he had to use twelve sutures, and the patient recovered without a single symptom of peritonitis. Besides carbolic and salicylic acid he has recently employed thymol (for irrigation especially), as not being poisonous if absorbed.

By thus strictly carrying out details in drainage and in the use of antiseptic precautions, Volkmann believes that he avoids retention of poisonous fluids in the wound, and the setting up of "acute ichlorus and purulent inflammation of the pelvic cellular tissue," which constitute the chief danger of these operations, by spreading, often in a few hours, to the neighborhood of the kidneys and diaphragm as retro-peritonitis and lymphangitis, and leading secondarily to peritonitis.

He does several different operations, according to the nature of the case: *e. g.*, cutting out a limited portion of the rectum, and also cutting out a section of the gut, and leaving the sphincter when it is free from disease; but he decidedly prefers early and total extirpation, including the sphincter, as being most likely to insure ultimate safety from return of the disease.

After the operation the chief difficulty is inability, under some circumstances, to retain the feces; but even this is a less serious matter than the pain which attends obstruction, and the disease itself not unfrequently gives rise to incontinence. On the other hand, the operation promises entire ease of defecation and freedom from pain, which are likely to be lasting; for local return comes in the cicatrix at the edge of the skin, or else high up in the pelvis, or in the internal organs, especially the liver. Local return, with renewal of stenosis and pain, happens only when removal has been delayed too long and has not been carried high enough to reach certainly healthy bowel. If there is no prospect of accomplishing this, he declines to operate.

CASE I.—Mrs. —, a well-nourished and healthy-looking lady of middle age, who had been for some time complaining of vague pelvic uneasiness which had been attributed to the uterus, insisted so strongly that there was something wrong in the rectum, that Dr.

\* Ueber den Mastdarmkrebs und die Exstirpation recti in *Klinischer Vortrage*. No. 131 (Chirurgie, No. 42), March 13, 1878. I owe an early acquaintance with this paper to my friend Dr. L. A. Stimson, who kindly made for me an abstract of it in English.

† The Germans have invented a verb, *listern*, by which they avoid circumlocution when speaking of antiseptic dressings.

Keyes, early in March, asked me to examine her. I was rather surprised to discover a zone of lumpy thickening nearly surrounding the bowel at about two and a half inches from the anus. It was entirely movable on all sides, even towards the vaginal septum. I advised an operation, and consented to Dr. Keyes's proposition to attempt its removal by ligature, which was thoroughly accomplished, as far as we could judge, on the 10th of March, a tuck very nearly two inches in width being very completely tied off. The slough separated in ten days, and on the thirtieth day after the operation I again examined the patient. A sharp, thread-like linear cicatrix was distinctly prominent around the bowel, except at one point behind and to the right, where a characteristic nodular growth, apparently of recent formation, showed that the disease was still active. The character of this growth, which had been ascertained to be cylindrical epithelioma, and the promise of better success suggested by the paper of Volkmann which had just been received, seemed to me to justify a trial of extirpation, and this I advised. It was done on the 1st of May, under thymol spray, by Dr. Keyes. We decided to preserve the sphincter, and room was gained by a central incision from anus to coccyx for the thorough removal of a section comprising from two and a half to three inches of the gut. From the left side of the pelvis, near the median line, quite a mass of injected and thickened connective tissue, with several distinctly enlarged glands, was drawn down, apparently from between the layers of the meso-rectum, and after careful scrutiny removed. The bleeding was readily controlled by tying vessels as they were divided; and, as the levatores ani had been dissected away from the bowel, and the peritoneum also carefully detached from it for some little distance above, it was readily drawn down so that the entire freedom of the rectum from disease at the proposed point of section could be satisfactorily determined. The gut was then cut across with the scissors, and the edges of the stump sewed fast to the sphincter. With the tuck originally removed by ligature, it was computed that about five inches of the rectum had been taken away. Slender bundles of horse hair to secure drainage were inserted between the sutures as they were applied, and outside the rectum, introduced through punctures of the skin, tubes were placed, on either side, for irrigation. A fountain-syringe suspended from a gas-fixture, with a dropping-tube inserted, was attached to the tubes, and the whole pelvis enveloped in an impermeable diaper (known as the "invalid drawers"), with a tube attachment carried through an opening in the mattress and sacking to a vessel beneath the bedstead to receive the drip. This diaper contrivance, invented by Mrs. Bradley for a paraplegic brother, answered admirably. The flow of a thymol solution (1-1,000) was kept up until the fourth day. There was no marked febrile reaction nor rise of temperature. Some plugging which had been inserted into the vagina prevented escape of gas from the bowel, and this proved a disadvantage, for the tension led to premature tearing out of the sutures, so that the stump of the rectum retracted somewhat, and the posterior incision also failed to unite. But the bowels acted with singular regularity, notwithstanding the opium, and the wound granulated so well that the patient, who had the services of excellent nurses, rode one and a half hours in the park on the twenty-first day, and was able to go to the country at the end of the fourth week. On the 12th of June she visited the office, and I recognized, on examination, that the wound was cicatrizing satisfactorily; about three-fourths of an inch within, the

finger passed easily through a thread-like ring, marking the contracted end of the gut; beyond this, as far as the finger could reach, everything was soft and healthy. There was no perceptible action of the sphincter, the lack of which has thus far proved no serious inconvenience, as the bowels act kindly and regularly, and the simple dressings prevent incontinence. The action of the sphincter will probably improve when cicatrization is completed. The patient's general appearance is that of perfect health.

From this case two things, at least, were learned: first, to provide for free escape of flatus; second, that the absence or powerlessness of the sphincter is not necessarily a matter of such very great moment. For the next case, therefore, which shortly presented itself, an ingenious contrivance was employed by which the first indication was met; and, as for the second, we decided that it was better, for the patient's interest, to remove the sphincter entirely. The instrument for giving vent to flatus is an egg-shaped air "pessary" of caoutchouc—a thin, soft india-rubber bag with a flexible tube eight inches long, ending in a stop-cock, and traversed in its long diameter by an ordinary gum catheter of full size; the bag being air-tight, and distensible at will through the tube stop-cock. It is a modification of what is known as Guyon's substitute for the old *canule à chemise* for plugging the wound after lithotomy in case of hemorrhage, which I picked up recently in Paris, and it will make pressure in the rectum to any desired extent under similar circumstances of bleeding, and at the same time permit flatus to escape. It is obvious, also, that a certain degree of distention of the gut after extirpation diminishes the area outside, between it and the pelvic walls, which is to be filled up by granulation in the process of cure.

CASE II.—Miss —, 30, became aware some eighteen months ago of a protrusion after straining at stool. This returned from time to time, and was accompanied by some back-ache and a bloody discharge; it proved to be a polypoid growth, and was removed by her physician, Dr. John Burke, of Lexington avenue. After this for six or eight months she remained well, but the gradual return of the aching pain between the hips, with uneasiness in the rectum, and the reappearance of blood in the stools, led her again to seek advice, and Dr. Burke sent her to me on the 13th of May. I recognized the presence of several elevated patches with irregularly granulated surfaces, the largest towards the vagina, and nearly surrounding the rectum, at from an inch and a half to two inches and a half from the anus; the parts movable; no other evidence of disease; general condition good. Believing this to be an epithelioma, and apparently of slow growth, I advised extirpation, including the sphincter; and, Dr. Burke approving, this operation was done, under thymol spray, by Dr. Keyes, at my request, on May 20th.

By Lisfranc's method, with a circular incision around the anus, about three inches of the gut were separated from the surrounding parts, and amputated well above the disease, with very moderate bleeding. The edges of the remaining portion of the rectum were readily brought down and stitched to those of the external wound without any tension, by means of silver wire, with provision for drainage as in the last case, except for irrigation. This was omitted because nurses were not available to carry it out efficiently, and the following measures were substituted: a Napier's convoluted catheter was lodged in the bladder; the perforated air-pessary already described was inserted into the rectum, and gently distended, so as to reduce the area of the surrounding extra-rectal cavity to a



minimum, and a mass of oakum applied over the wound, and covered in by carbolized gauze. At each dressing, under spray, the extra drainage tubes were injected with antiseptic solution, and the parts bathed with the same. The case did perfectly well; on the twelfth day she sat up, and on the 18th of June came to the office.

I found a perfect line of union of healthy mucous membrane with skin around the new anus, which presented a very natural appearance, with the slightest possible tendency to protrusion of the former. The forefinger nearly filled the opening, which could, of course, exert no power of squeezing it. Everything within felt healthy. The patient averred that she had no power to prevent the contents of her bowels from escaping, but on cross questioning, I found that she had experienced no mishap or inconvenience, in fact, whatever, since the day she first sat up. Every morning she has a natural sensation of desire, and a full, painless evacuation follows; after this she goes around as usual, protected only by a simple compress and napkin, and so far has had nothing to complain of. Undoubtedly, in case of diarrhea there will be more trouble. Time will show if there is to be any aid from increasing power of the lowermost circular fibres of the bowel, a result which, it has been asserted, nature accomplishes in these cases. I advised the use of fine prepared oakum as a compress. Her general appearance had noticeably improved, and her expressions of gratitude were spontaneous and earnest.

The success as to the immediate result of the operation of the two cases I have detailed, induced my colleague, Dr. George A. Peters, to make a trial of the Volkmann method in a case which entered his service at the New York Hospital about this time, of which he has kindly placed the notes at my disposal.

CASE III.—J. H.—, 50, married; admitted May 18, 1878, under Dr. Peters. He is a pallid but well-nourished man, and has a warty, tubercular growth, extending about half an inch from the margin of the anus externally, and from one and a half to two and a half inches up into the bowel, and nearly surrounding it. There is an enlarged gland in the left groin. He gives a history of an operation for fistula sixteen years ago, and of a lump appearing afterwards, which same growth, as he believes, has only lately begun to give him trouble. The pain in defecation is now so severe as to require anodyne suppositories, and he demands an operation for its relief.

On May 26th the operation was done with all the antiseptic precautions, except the use of spray. The gut was readily brought down and amputated, well beyond the disease, and the edges of the stump sewed fast to those of the external circular wound. The bleeding was exceedingly moderate. Ample provision was made for drainage, and a tube placed in the rectum to give vent to gas. Finally, thymol solution was freely injected to wash out the wound, and carbolized gauze applied over a compress of oakum. The dressing was removed every four or five hours under spray. The patient did well until 8 o'clock p. m. on the fourth day, when a severe chill occurred, with a rise of temperature to 103.2°, followed by sweating. On the fifth day there was complaint of pain in the right elbow-joint, and at 10 o'clock p. m. another severe chill and sweat. On the sixth day the temperature rose to 105°, and death took place at 4 o'clock p. m. (May 31st).

Body examined at 12 o'clock m. next day. Rounded cicatrices on the legs noted by the pathologist. Drainage tubes in position near incision around anus, which looks healthy; mucous membrane everywhere

stitched to integument; no union has taken place. Rectum for an inch above wound dark colored and somewhat softened; above this, healthy; no remains of disease; but little pus, and that not badly smelling. Right elbow-joint contained a small amount of pus; other joints healthy. Liver fatty; no abscesses. Lungs slightly oedematous; no abscesses to be found; half an ounce of reddish serum in each pleura, and recent adhesions at apex of left lung. Kidneys shrunken and irregular on surface, with several cysts, and many scars of old cysts; cortical portion markedly atrophied. Stomach shows the *état macéramé* of chronic gastritis; extensive ecchymoses in duodenum. At the apex of the cavity of the left ventricle of the heart there is a smaller cavity, shut off from the rest of the ventricle by an adhesion of its walls, the size of a small horse-chestnut, which contains masses of fibrine, but no blood. The walls of this small cavity are hard, and muscular tissue is evidently absent.

Microscopical examination of the disease removed from the rectum shows colloid degeneration of a cylindrical epithelioma. Well-marked linear rows of micrococci were discovered between the muscular fibres in the heart; also in kidney.

These cases alone are sufficient to show that complete, even extensive extirpation of the lower end of the rectum can be effected with entire safety as far as hemorrhage is concerned. Volkmann says, on this point, that the gush of blood is often considerable, and requires the coolness of a surgeon accustomed to operations, but that he has never seen death from this cause. The 49 cases collected by Marchand,\* bald as many of them are in point of detail, also demonstrate this: for whilst they include 11 deaths, none are ascribed to hemorrhage; and in only one, in which the patient died on the second day,—a case of Lisfranc's,—can the issue, I think, be attributed to this cause. Granting that some bad cases may remain unpublished, still the evidence is very strong as to the absence of serious danger from bleeding, to the practised surgeon.

As for the subsequent dangers of the operation, Marchand has one death in the third week from obstruction by a cancerous stricture situated higher up in the colon, and nine fatal results from pyæmia, peritonitis, and erysipelas. In his cases there were several in which the peritoneum was wounded: and there is no mention in any of them of the use of antiseptic precautions. This would make the mortality of the operation, without antiseptics, and without improved drainage, about 18 per cent., and it is to be added that a large majority of these were hospital cases.

The question of the necessity of absolute obedience in regard to antiseptic details is yet under judgment. Volkmann's submission is complete; he adopts all the rules which have been insisted on by Lister, even to the minutest details, and we must keep in view the fact that it is to this, as well as to his complete provisions for drainage, that he attributes the greater degree of success which he claims.

At the same time there is a large show of successful recoveries from the operation without antiseptics, in the collection of cases just mentioned, and several have occurred in our own country, *e.g.*, the cases of the late Alden March, Emmet, Weir, Briddon.

Dr. Keyes gives me notes of the following case, which occurred in his service at Bellevue Hospital:

J. E. —, 50, entered April, 1877. Pale, thin, emaciated; complains of constant leakage of pus from the

\* Étude sur l'extirpation de l'extrémité inférieure du rectum, Paris, 573.

anus, with great pain, especially after stool, when there is also blood. He lacks the power of extrusion. History of "ulcerated hemorrhoids," which have been frequently cankerized, and partially snipped off. On examination, a hard mass was felt about two inches up the gut, attached posteriorly and encircling it for about three-quarters of its circumference. The mass was slightly pedunculated and cauliflower-like; it projected into the cavity of the bowel and involved the tissues between it and the sacrum, without being adherent to the latter. It was most bulky in the centre, where it was evidently ulcerated, and tapered off as it extended around on either side. Sphincter not involved. Operation for extirpation, May 1, 1877, by the *écraseur*. The mucous membrane was incised from the tumor downwards, and the incision carried externally, through the skin only, as far as the tip of the coccyx. A stout needle and ligature, carrying the wire of the *écraseur*, was then passed from near the tip of the coccyx upwards, outside of the gut, above the disease, then through the wall of the bowel and out at the anus, and the tissues thus included in the loop of wire were slowly divided. The diseased portion of the gut could now be drawn well down, and stout knitting needles were transfixed through the healthy tissues beyond it, on each side, successively, the loop of the *écraseur* carried around above the needles, and thus the whole removed. A hard nodule, situated pretty high up posteriorly, gave a gritty sensation when pierced by the tenaculum, and was left, as it was decided to be a lymphatic gland undergoing calcification. No antiseptics were used, and little or no blood lost. The patient did well after the operation, and on June 8th presented the following condition: wound in the direction of coccyx still unhealed; slight tendency to contraction at line of division of gut, which will receive a bougie an inch in diameter. Relief from pain entire. Bowels act naturally. Returns to his home at New Kingston, N. Y.

Nov. 9, 1877, E. returns to report himself "cured." He has worked all summer on a farm, has gained twenty pounds, and looks fat and well. The incision towards coccyx has healed, leaving an angular sulcus through which the contents of the bowel tend to escape when fluid. He wears a small pad of oakum and a T bandage, and is very well satisfied. A thin knife-like circle, easily admitting the finger, occupies the site of the operation, and there all is sound; but above and behind, where the gland was left, there is a hard rounded tumor the size of an English walnut, attached solidly behind, but very slightly to the bowel.

On the 1st of February this was removed through a slightly curved incision four to five inches long, made with the knife of Paquelin's thermo-cautery, beside the coccyx, and extending up along the sacrum. The tumor was separated with the periosteum, from the surface of the sacrum, by the handle of the knife, and from the gut without opening into its cavity. In five weeks the wound was nearly closed, and the patient went home feeling well. He has not been heard from since.

Let us hope, whilst we are awaiting the final verdict as to its remedial value, that the feasibility and the promise of the operation of extirpation of the rectum for cancer will lead to its farther trial; for, as a means of relief in this most painful and otherwise absolutely mortal disease, it affords a chance to which the sufferer has a right, and which must be weighed, by the conscientious surgeon, in the same balance with colotomy.

Dr. St. John, in closing, said that Dr. Hamilton seemed to lose sight entirely of the object of the argu-

ment of the paper, which had been distinctly stated to be to claim a legitimate place for the treatment by the gypsum apparatus, and not to establish a comparison between this method and any other. He asked if Dr. H. still adhered to his assertion "that with this apparatus the limb shortened as much as it was possible for it to shorten." (Dr. H. said that when he made that assertion he meant what he said, but he now desired to recall it.)

The cases adduced by Dr. H., treated by extension, showed remarkable results, but it was utterly unfair to ask that these cases treated under the personal supervision of Dr. H. should be compared with cases taken at random from general hospital statistics, for cases of extensive treatment taken in the latter way showed no such results as Dr. H. had brought forward. There was fortunately a set of cases in the statistics brought forward to-night which were treated under the personal supervision of one man, Dr. W. T. Bull, of Chambers Street Hospital, and these fifteen cases, which were all of the shaft of the femur, would bear comparison with the seventeen cases of fracture of the shaft adduced by Dr. H., the average shortening being the same, the maximum less, and there being no deformity. As for the extreme accuracy in measurements, brought forward by Dr. H. as showing the perfection aimed at in treating such cases, it was self-evident that the facts recently brought to light by Dr. Wright, of Brooklyn, and endorsed by Dr. H., as to a normal difference in the length of the two legs, rendered nugatory any such attempt at exactness, and overthrew all arguments for the superiority of any particular method which rested upon measurements to within the minute fraction of an inch.

## Original Communications.

### "THE PHYSICAL SIGNS OF INTERPLEURAL PATHOLOGICAL PROCESSES."

A REPLY TO DR. LEAMING'S PAPER.

By BEVERLEY ROBINSON, M.D.,

LECTURER UPON CLINICAL MEDICINE AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

EVERY novel theory which is based upon experience and careful investigation merits consideration. When to these qualities is added the authority invested in it by a man of acknowledged ability and good faith, it is all the more worthy of rigid examination. And yet such opinions should in no manner conflict with our judgment in regard to its real value. Such is, in my belief, eminently true of Dr. Leaming's personal ideas with respect of auscultatory abnormal sounds of the pleura. Hitherto the very large majority, not to say the entire body, of medical practitioners have held mainly to the notions of auscultatory phenomena first promulgated by Laënnec, and have had no good reasons to doubt their accuracy in essential points. For them, mucous, subcrepitant, and crepitant râles were seated in the lung-structure, and became evident to an attentive observer in many different lesions of these organs. It was admitted by all that plastic conditions of the pleura produce friction sounds, and in certain instances these sounds approach very closely the characters of subcrepitant râles. But whilst this is true, many signs exist by which an accurate differential diagnosis can be established, and certainly no one has hitherto entertained the idea that all forms of



moist râles are seated rather in the pleuræ than in the lungs. To Dr. J. R. Leaming, therefore, belongs the honor of having first announced this conviction in a detailed and emphatic manner. On more than one occasion already he has stated publicly that our received opinions of auscultatory sounds are in many particulars incorrectly supported, and needed wise revision.

In the New York MEDICAL RECORD of May 25, 1878, he has insisted more strongly than ever upon the force and truth of his affirmations. Now, it appears to me only proper that some one of those who believe Dr. Leaming's views erroneous should make known his views, and should give the essential reasons upon which this difference of conviction rests.

In the second column of his late article Dr. Leaming writes as follows: "I have, in repeated instances, carefully noted and recorded the locality of râles, and their distinctive characteristics, for the purpose of testing them in relation to pathological conditions, to be revealed by autopsies. In no instance have I found them to disagree with the interpretation that their cause lay in an interpleural process." Now, surely Dr. Leaming does not wish to affirm that all the usual moist râles take origin in the pleuræ; or, if he does, may I not ask of him, with much reason, answers to the following familiar facts:

During the operation of thoracentesis, and so soon as a certain quantity of liquid has been withdrawn, the phenomena revealed by percussion and auscultation are modified. Resonance returns from above downwards, at the same time that the ear applied over the chest hears the sound of vesicular expansion manifest itself, at first at the apex of the lung in front and behind, and progressively in all the extent of the affected side. This pulmonary expansion is accompanied with mucous and subcrepitant râles. The above signs are at times heard before even the larger portion of the effusion is removed, and consequently before the plastic layers covering the lung and thoracic parietes can possibly rub against each other in any but a very limited space at the upper portion of the pleuræ.

How then shall we explain the crepitant and subcrepitant râles, heard under these circumstances, in any other manner than by pulmonary expansion and by the passage of air through the smaller bronchia and into the air-cells containing mucus?

Again, at multiple autopsies, as I have seen them in large general hospitals, though I have had frequent occasions to remark the existence of pleural adhesions in cases where subcrepitant râles have been distinctly heard but a short time previous to death over an extensive area of the lungs, very rarely, or at all, have I heard them without afterwards recognizing at the post-mortem examination more or less concomitant trouble of the bronchia or interstitial lung substance.

Usually the existence of pleural adhesions, except those of very recent date, almost of necessity implies the presence of congestion, induration, chronic pneumonia, or tuberculous and caseous deposits. How then can we be at all certain that the subcrepitant râles are occasioned solely by the pleural adhesions?

In order to prove that the adhesions are the efficient cause of the râles, and, indeed, the only one, it is essential to record cases in which the pulmonary structure is perfectly healthy except for the presence of the pleural adhesions, and this Dr. Leaming has not done in any one of the cases lately reported in the N. Y. MEDICAL RECORD. In Case I. there was "pneumonia of the whole of the right lung, which was consolidated." In Case 2, "left lung was found solid with pneumonia, except the lower part of the left

lobe. The upper was in a state of gray hepatization, the middle red. The lower part was very much congested, but crepitated on pressure." In Case 3 no post-mortem was made, and it was merely inferred that the lung was consolidated, and, gratuitously also, that as this was the case "no air could enter it."

It is, of course, possible to have an entire lung consolidated to that degree as to be wholly impervious to air; but it will be readily admitted, I believe, that, generally speaking, the margins of even the most extensive consolidation are accompanied by the condition known as splenization. And if the lung tissue is altered to the extent of gray hepatization, we ordinarily have a tendency to softening in certain parts, which will fully explain the existence of more or less moist râles.

In Case 4, Dr. Delafield found "patches of pigmental fibrous tissue" in upper lobe of left lung, and "bands of new fibrous tissue and recent red hepatization in lower lobe."

In Case 5, "trachea and bronchia atrophied by pressure of tumor."

In Case 6 no post-mortem, but the existence of "soft tearing râles" is affirmed. In Case 7, lungs are stated by Dr. Albe "not diseased," though extensive plastic adhesions covered the greater portion of both lungs. Can one recognize healthy lung tissue in this example?

Case 8, "lung filled with tubercles (caseous concretions), and two newly-formed cavities, one at the apex and the other at the middle of the upper lobe."

In Case 9, and last, "there is a dry tubercular or caseous deposit in upper part of right lung, and a good-sized cavity in upper part of the left."

These literal citations from Dr. Leaming's article will sufficiently show, I venture to affirm, the somewhat imperfect nature of the cases upon which Dr. L. rests a portion of his published belief. In the fourth column of Dr. Leaming's article (p. 402) the author asks the following question: "Has the generally-received opinion that all large, soft, moist râles are caused by bursting bubbles in the bronchi, ever been put to the test of careful experiment?"

The experiments of Spittal, Piorry, Petrequin, Fournet, Beau, Barth and Roger, Collongues, I believe were carefully made, and go to show that "in injecting into the bronchial liquids of different density, râles are produced with bubbles of different sizes, according to the volume of the bronchial ramifications."\*

Further: "In order to facilitate the artificial reproduction of divers morbid murmurs of the respiration, Dr. Collongues constructed a bust in statuary pasteboard, in the cavity of which are placed tubes in india-rubber and bladders (put in communication with a bellows), and of which the lengths and dimensions had been exactly calculated. Five tubes produce each a special sound, which corresponds to the different murmurs, rude respiration, bronchial respiration, cavernous respiration, amphoric respiration, and normal respiration. The râles are obtained by modifications, of which the most important consist in fragments of tube called mouth-pieces. These mouth-pieces, moistened with saliva adapted to the bellows, produce the crepitant, the subcrepitant, mucous, sibilant and sonorous râles.

"By making two surfaces play upon each other, the one rough, the other smooth, the sounds of grazing and grating are produced. The divers mechanisms contained in the thorax correspond each to a special external opening, at the level of which the stethoscope

\* Barth and Roger, *Traité Pratique d'Auscultation*, p. 42.

is applied in order to hear the sound that one wishes to produce."

The above apparatus, called "pneumoscope," was presented by its inventor to the members of the French Academy of Medicine, on April 26, 1864, and according to his statement, was seen and highly commended for the exactness and distinctive characters of the sounds produced by it, by Professors Trousseau, Barth, Blache, B.-clard and others. As an experimental contrivance, therefore, it was assuredly very perfect.

In speaking of the theories given by different observers for the production of moist râles, Dr. Leaning writes as follows: "The tidal-air physiologists estimate it to be about one-tenth part of that of the lungs. So that after expiration there still remain nine-tenths occupying the true respiratory system. *This is the residual air.*"

In residual air Dr. Leaning includes evidently, both the *reserve air* and the *residual air*, properly speaking.

Now, the latter *always* remains in the lungs, unless these organs be torn in pieces, or wholly disintegrated, whereas the *reserve air* can at any time be expelled from the lungs by a forced effort of expiration, and this phenomenon is no doubt partially effected whenever the respirations are more than ordinarily energetic and rapid.

To quote from Dr. Leaning's words again: "When inspiration takes place the column of *in-moving* air passes in a body to about the third or fourth division of the bronchia, and can go no further, but mixes with the residual air, obeying the law of the diffusion of gases."

Is no mention to be made in the interchange constantly going on between the vitiated air of the air-cells and the relatively fresh air contained in the smaller bronchial tubes, of the *ciliated epithelium* which lines these tubes, and which here as in other regions of the body, where present, always produces currents of the fluid with which it is in contact?

Moreover, diffusion is undoubtedly aided by the elasticity of the lungs, which forces the gaseous contents out of the air-cells. Add to these forces a due consideration of the difference of densities in the inflowing and out-flowing air close to the "vesicles," and one recognizes a current of some considerable impetus even at the termination of the respiratory act. It seems to me, also, that the alternate movements of the chest-walls cause impulses which must tend to produce *current* effects even within the air-sacs. And notably should this be true in forms of disease implicating the lungs, for almost invariably then the *reserve air* is considerably encroached upon during the respiratory act for a greater or less lapse of time. The theories, therefore, in regard to the intrapulmonary production of moist râles are not "*impossible*," as Dr. Leaning would have us believe.

I cannot forbear to cite in this place the words of Skoda in regard to vesicular râle, who was certainly no mean antagonist of many views held by Laënnec, but who here cordially sustains him: "By this term I understand (in accordance with Andral and Laënnec) the râle which takes its origin in the finer bronchial tubes, and in the air-cells; we know that the râle arises there, from the fact of its bubbles being small, and of equal size; it indicates the presence of mucus, blood, or serum, etc., in the finer bronchial tubes and in the air-cells, and the entrance of air into the latter."\*

At the termination of the article of Dr. Leaning I

find the following (I believe) inadmissible proposition:

"1. Capillary bronchitis may or may not be accompanied by râles; *when so, they have their origin within the pleural cavity, and when there is no exudation there are no râles.*

"2. Fine subcrepitus may or may not accompany pulmonary œdema, *but only when there is exudation of some kind within the pleura.* The only true sign of pulmonary œdema is dulness under percussion. It is not distinguishable from pleuritic effusion, except when there are fine subcrepitant râles as well, *showing that the pleural surfaces are in contact and covered with lymph.*"

In my service of Charity Hospital within two years past I have had under my care more than one case of the first form of disease, and several of the second, in which autopsies showed the pleura of normal thickness and coloration, and yet fine subcrepitant râles were recognized by myself in the most positive manner shortly before death. Such cases, indeed, in my experience, are rather the rule than the exception.

In concluding these criticisms I feel called upon to ask, in Dr. Leaning's own words: "What diagnostic interpulmonary signs have we remaining, if all the râles and rhonci hitherto considered as evidence of pneumonia, bronchitis, œdema of the lung, tuberculosis, cavities, etc., are to be interpreted as of interpleural origin?"

To this question I would have no adequate reply to make were I inclined to admit the fact, but fortunately I am thoroughly convinced they should not as yet be thus *interpreted*.

## HYDROCEPHALIC FETUS.—DECAPITATION.

A QUESTION IN DIAGNOSIS.

By W. E. FOREST, M.D.,

RESIDENT PHYSICIAN LYING-IN ASYLUM; ATTENDING PHYSICIAN  
NEW YORK DISPENSARY.

MARY E—, aged 26; second confinement. Taken in labor at 7 A.M.; attended by a midwife. At 12 M. the breech of the child was born, and the midwife then summoned a neighboring physician. At five and one-half P.M. I was summoned to the case. Found that the physician in attendance had deserted the case some time previously. On making an examination found the trunk of the child lying between the mother's thighs and connected to the head, still undelivered, only by a narrow strip of integument from the back of the neck. The perineum of the mother was lacerated to the second degree; the anterior wall of the vagina was prolapsed, and the vulva hot and swollen. Nevertheless the general condition of the woman was very good as far as pulse and temperature indicated. The hand, when passed far up into the vagina, detected the head of the child above the brim of the pelvis, the base of the skull presenting, the chin posterior and to the mother's right side. I failed to detect anything abnormal either in the maternal pelvis or the child's cranium, and hence no reason could be assigned for the existing state of affairs, namely, a decapitated trunk and a head undelivered.

Dr. E. L. Partridge and Dr. J. L. Morrill were invited to be present, and throughout the case I received valuable advice and assistance from these gentlemen.

As no obstacle to the application of the forceps was

\* A Treatise of Auscultation and Percussion. London, 1853, p. 130.



discovered, we determined to apply them. The head was steadied by pressure made upon the mother's abdomen, and by traction upon the strip of integument extending from the child's trunk to the cranium, and without any serious difficulty the forceps were applied and locked. This operation threw the first ray of light upon the case.

In order to lock the forceps the handles had to be pushed far up, partly into the vagina; and, when locked, the extremities of the handles were very widely separated and could not be made to approximate each other.

From this feature it became evident that the head of the child between the blades was much larger than that of a normal child, so much so as to render any attempts at traction by the forceps entirely useless.

The forceps were therefore withdrawn, and the separation of the blades corresponding to the distance between the handles when the forceps were applied to the head, was measured.

This measurement gave seven inches as the diameter biparietal of the child's head. From this measurement it was at once surmised that we had to deal with a hydrocephalic head. The woman was profoundly anesthetized and the hand carried up into the uterus. During the manipulations incident to the application of the forceps, the head, owing probably to its globular form, had rotated so that the child's occiput was nearly opposite the mother's sacrum, and now a distended fontanel could be reached. This proved to be the temporo-parietal suture of the left side. Thomas' perforator, the only suitable instrument at hand, was introduced, and a large amount of water, *eighty-two ounces by measurement*, drawn off.

The head was then quickly expelled by uterine contractions.

The head, after being filled with plaster-of-Paris and allowed to solidify, gave the following measurements:

Occipito frontal circumference, 22 inches; occipito-mental circumference, 21 inches; biparietal diameter, 7 inches.

The principal point of interest in the above case was the use of the forceps as an aid to diagnosis. The diagnosis of the hydrocephalic condition when the breech presents is very difficult. In these cases the labor, owing to the small size of the child's body, progresses easily and rapidly without giving any symptoms of the true condition of the child, until the base of the child's skull rests upon the brim of the pelvis. The condition of affairs then is somewhat as follows: the labor makes no further progress; the child's neck or even the shoulders are obstructing the vagina and interfering with a thorough examination; while the base of the child's cranium is resting upon the brim of the pelvis, and the diagnostic sign of hydrocephalus, the distended fontanels, are above the brim of the pelvis almost out of reach. In this state of affairs any aid to the diagnosis will be of great importance.

It has seemed to me that the forceps offers such an aid. When applied and locked (and they usually can be applied by persevering effort) the distance between the extremities of the handles of the instrument will indicate that a large body is between the blades of the forceps, and must tell pretty accurately the diameter of this body.

But one condition of the fœtus could give rise to this separation of the blades of the forceps, and that is the hydrocephalic condition. In those rare cases where tumors grow from the fœtal head, there is usually no obstacle to a spontaneous delivery, or at

least to a delivery by moderate traction upon the fœtal head; at least they may furnish such indications of the probable condition of the fœtus that the duty of the accoucheur is not to wait vaguely hoping that nature unaided will solve the difficulty; but, both in the interest of the mother and possibly of the child, it will be the duty of the accoucheur to pass his hand into the uterus, if need be to the fundus, until a fontanel can be reached, the diagnosis verified, and the treatment immediately applied.

168 SPRING STREET.

## Reports of Hospitals.

### PRESBYTERIAN HOSPITAL, NEW YORK.

#### CONTRIBUTIONS TO ELECTRICAL THERAPEUTICS.

By W. H. HAYNES, M.D.,

LATE HOUSE-PHYSICIAN.

In the Presbyterian Hospital of this city there exists a rule, by virtue of which the senior medical assistant is made electrician to the hospital, previously fitting himself for the position during his junior assistant term of service.

During the period I had charge of this service there were placed under my care, among others, the following cases, which, with their accompanying remarks, is thought will be of interest and stimulate research in this interesting, though budding, branch of our profession. Some of the matter contained herein will be found at variance with views set forth by some of the masters of this science. I merely state the facts, however, and, except in a few instances, they stand for themselves.

#### NÆVUS.

This case was a congenital subcutaneous nævus, located over the superior portion of the internal angle of the left eye, extending outward along the eyebrow four-fifths of its length, and the size of a pigeon's egg, occurring in a female infant two months old, who was sent to the hospital by Dr. W. T. White, attending surgeon. At birth it was but a slight elevation of the skin.

Electrolysis was performed, patient being under influence of ether, by inserting at each extremity of the longitudinal diameter of the tumor a needle, freshly insulated to a quarter of an inch from its point, and the current from twelve cells of a Drescher constant battery allowed to pass for fifteen minutes. The result was hardening of the tumor on a broad line between the insertion of the needles, discoloration of the skin around the negative needle, and the exuding of a quantity of frothy, yellowish material (said to be hydrogen mingled with blood), which on microscopical examination showed nothing but a few blood-corpuscles from the same point. Subsequently this discoloration sloughed, and healed without disfigurement. Later, an application was made to each of the portions of the tumor situated above and below the broad band of coagulation resulting from the former application. The child was discharged two months and a half from the date of the first application, with the tumor less than one-half its original size, still subsiding, and without any disfigurement resulting from the operations. These cases are common enough, without doubt; but the mode of their treatment by electrolysis is not so, recent writers and operators still

adhering to the old method in cases where this method would be more applicable. To increase the proof of its efficacy, and prevent others having the single unfortunate result we did, viz., sloughing of the integument at the negative, are our reasons for publishing this case. To obviate the latter, use, instead of a needle attached to the negative pole and inserted into the tumor, as is recommended by some authorities, with the same result as we had, a sponge-electrode, and apply it anywhere on the surface of the body in the vicinity of the tumor, which is the method practised by Althaus and McGill Anderson. The risks incurred by using an anæsthetic we think are unnecessary, and it was not used in the later operations.

#### SCIRRHUS OF THE MAMMA.

The patient was a woman, thirty years of age, married sixteen years, and a cook by occupation. Admitted to the service of Dr. C. K. Briddon, attending surgeon, August, 1876. There is no hereditary history of cancer. She is an emaciated, anæmic, nervous woman, with a tumor in her right breast, which first appeared eight months ago. It is hard, nodular, about the size of a hen's egg, non-adherent to the skin, which is discolored over the site of the tumor. The nipple is very much retracted. There are no glandular enlargements. Has sharp, shooting pains through her right shoulder and breast, sometimes keeping her awake at night, and symptoms of intestinal obstruction. The diagnosis of cancer of the breast had previously been made by Drs. Wood, Mott, Hamilton, and others, of Bellevue Hospital, where the patient had been for treatment of her intestinal trouble, and was concurred in here. She obstinately refused operative interference; so treatment by electrolysis was proposed and accepted, much to our satisfaction, as we greatly desired giving that method of treatment in these cases a trial, having watched several cases where the growth had been extirpated, but had returned and killed the patients in less than a year after.

On August 18th the first operation by the electrolytic plan of treatment was performed. A needle attached to the negative pole of a Drescher constant battery was plunged into the tumor near its base; a sponge-electrode attached to the positive pole was applied to the opposite side of the tumor, and the current from ten cells put in action, after the application of the electrodes. No anæsthetic was used, and no pain produced during the *séance* of ten minutes, in which time the tumor increased in size and became softer.

21st.—The above operation was repeated. The number of cells was gradually increased up to thirty-five, when a smart, burning sensation was felt at the location of the sponge- (positive) electrode, which is slowly moved around the opposite side of the tumor to that in which the needle is inserted. The current was applied at this strength for the last four minutes of the ten. No change was noticed in the tumor. 24th.—The current from eighteen cells was applied for ten minutes, in the same manner as before. 28th.—The current from twenty cells was applied for ten minutes.

September 1st.—The current from twenty-three cells was applied for twenty-five minutes. 4th.—Twenty cells for half an hour. 8th.—Twenty-nine cells for half an hour. The tumor is thought to be larger and softer than when patient was admitted. 11th.—There has developed a small spot of inflammation over the centre of the tumor, on which account no application was made. 15th.—This condition has all subsided, and the application of twenty-five cells for thirty minutes was made without any disturbance to patient. 18th.—To-day commenced external applications of the cur-

rent, applying a sponge-electrode on opposite sides of the tumor, in such a manner that the current will traverse the passages made by the needles. Used the current from ten cells for ten minutes.

Daily applications were made in this manner, using a current of the same strength and for the same length of time, till the 21st, when this treatment was interrupted by an attack of intestinal obstruction. On the 27th it was resumed in like manner, only using as many cells as possible without disturbing the patient. This was continued every day till October 23d, when another attack of intestinal trouble again interrupted the treatment. On November 1st it was resumed. At this date she complained of pain in the right axilla, and on examination the glands in this location were found enlarged to the size of marbles. Dr. Detmold and others, who had seen the tumor at the beginning of this treatment, and occasionally since, now declared the tumor to be no smaller, but otherwise enlarged. To this conclusion we were forced to concur.

November 6th.—The patient, being discouraged, left the hospital to-day. Treatment was continued up to date.

The result, then, of eight needle operations and thirty-four surface applications was simply relief from the severe pains which at times prevented sleep and made her very apprehensive. No anæsthetic was used at any operation. The needle was entered at a different point in the tumor, around its base, at each operation, and the sponge-electrode applied on the opposite side. The strength of the current was not regulated by the number of cells, but by the sensations of the patient. When she complained of a burning sensation or pain, the strength of the current was no further increased; but reduced till this subsided. This will account for the different numbers of cells stated as having been used at each operation.

#### LOCOMOTOR ATAXIA.

In the hospital, during this time, were two cases of this affection, which suffered extremely from the sudden, short, sharp, cutting pains and cramps in the muscles of the lower extremities, incident to the disease.

CASE I.—F. V., a man thirty-four years of age, has had the disease a little more than six months, and also gives a history of syphilis.

CASE II.—M. K., a woman, forty-eight years of age, has had the disease over a year, from no ascertainable cause.

They were both ordered to remain in bed, and the man, after various other modes of treatment, was put on the usual plan of gr.  $\frac{1}{4}$ , nit. silver, t. i. d.; while the woman was placed on the treatment of cod-liver oil, iron, and quinine. For the relief of their distressing pain a trial of the use of electricity was requested.

In looking for the methods recommended in the application of electricity in these cases, I found many authorities made use of it, but do not state their method. Amongst those who do, however, are Beard and Rockwell, who use most frequently galvanization of the spine; and Althaus, who uses galvanization of the cervical sympathetic.

Having found great relief following the use of the constant current applied in a different manner to either of these, in a case of fracture of the vertebra, where shooting pains and cramps in the muscles of the lower extremities were annoying symptoms, and thinking the pathology in this case was similar to that of the other two, viz., pressure of bone and inflammatory products on the nerve-cells and fibres of the spinal cord, while in the other cases it was from increase of connective tissue, determined me to give the same



method a trial in these cases. Using sponge-electrodes moistened in salted water, the positive one was placed to one side of the seat of the lesion in the spinal cord, and kept stationary there; the negative electrode was placed alongside it, and a mild constant galvanic current set in operation. The negative pole was gradually moved down the posterior aspect of the limb as far as the sole of the foot, and afterwards along the anterior aspect as far as the knee, and the current allowed to traverse the portion of the body between the poles for about five minutes. This was repeated on the other side of the body, making the *séance* last twenty minutes. At first only relief followed the application; gradually the pains lessened in intensity, and finally, after fifteen applications in this manner, in twenty-five days the twitchings and pains had disappeared, and did not return during the patient's stay in the hospital of a few months.

Early in the course of this treatment I tried galvanization of the cervical sympathetic; placing one electrode in the auriculo-maxillary fossa, the other over the transverse processes of the ninth and seventh cervical vertebrae on the opposite side of the body, and using only a mild current. With the effect of producing alarming cerebral symptoms during one application, and after three successive daily applications, the relief, if any, was very slight, and did not correspond to that obtained by the other method, which was continued with very good results.

#### EMESIS.

CASE I.—A very emaciated boy, aged twenty, weighing eighty-two and one-half pounds, had typhoid fever thirteen years ago, and chronic abscesses for the past four years, till eight months ago, when they healed. Soon after he commenced vomiting his food once a day, a half-hour after eating. Never vomited anything else. The vomiting became constant, has continued, and his stomach is so irritable that at present he can retain a very little light liquid food at times. No marked organic lesion could be found anywhere, and his urine was normal. The surface of his abdomen over the stomach was ordered to be faradized five minutes before eating, using a mild current. After fifteen days of this treatment, when he was discharged for disorderly conduct, the history remarks: "The use of the faradic current has been very beneficial, he having vomited only a few times since its use, and eating the ordinary house diet."

CASE II.—A very emaciated man, aged thirty-two, had suffered from dyspeptic symptoms for three years, which have grown steadily worse, so that now he is unable to retain any but the most simple food on his stomach. Examination of his urine gives, chemically, phosphates in abundance; and, microscopically, leucocytes, triple phosphate crystals, round renal epithelial cells, fatty casts, and free fat-globules. Faradization in the same manner in this case only made him worse, so after a few days' trial it was abandoned.

CASE III.—Was a man, aged twenty-eight, suffering from cerebral congestion. When the alarming symptoms had subsided, nausea and vomiting persisted to a marked degree, preventing the administration of food or medicine. After a single application of the mild faradic current, one electrode being placed in the right auriculo-maxillary fossa, and the other over the stomach for several minutes, it ceased and did not return during the rest of his convalescence.

These cases demonstrate the therapeutical use of electricity, not in all cases of vomiting, but selected ones—most probably those due to nervous origin, either peripheral or central.

## Progress of Medical Science.

COMPOSITION OF THE BLOOD-GLOBULE.—M. Béchamp has been studying the composition of the blood-globule, with the object of determining the existence of a proper investing membrane. In these researches he has employed a mixture of equal parts of blood and a ten or fifteen per cent. solution of starch, a small quantity of creosote being added. The globules of the duck, after six or eight days' removal from the body, retained their form, but on the addition of four or five volumes of water became swollen and pale, rendering apparent the nucleus movable in the cavity of the cell. At the end of twenty-three days they still retained their form, but were quite pale; on the addition of water they became almost spherical. Seen in movement they presented the appearance of nuclei, around which an exterior membrane was folded, wrapping and unrolling itself in obedience to each new impulse of the current. On filtering and adding tincture of iodine the nucleus and membrane could easily be distinguished, both colored yellow. The blood of other animals examined in the same manner gave similar results. These experiments, says M. Béchamp, are sufficient to prove the presence of a membrane, the existence of which renders easy the explanation of many facts, of which one is mentioned. The plasma of the blood is rich in soda, the globules in potassa. If, by means of the envelope, the globule is the seat of an osmosis necessary to life, this division is explained; the special nature of the membrane is opposed to osmotic exchange and equilibrium. So long as the envelope guards its contents,—that is to say, so long as it lives,—nothing can leave, and nothing penetrate the globule, except what it permits to pass.—*La France Médicale*, Feb. 6, 1878.

ON THE MODE OF DISSEMINATION OF ACUTE MILIARY TUBERCULOSIS.—Since the publication of Buhl's theory, the development of general tuberculosis is ascribed to a supposed virus, which forms in some diseased mass in the organism, finds its way in the circulating fluids, and produces by dissemination numerous secondary nodules. This theory is supported by weighty clinical, anatomical, and experimental facts, but no investigator has as yet succeeded in demonstrating the infectious substance either in the blood or in the multiple eruptions. It is exceedingly probable that the poison finds its way into the blood through the medium of the lymphatics; in fact, tubercular nodules have frequently been met with in the adventitia of the lymph-vessels, in immediate contact with caseous masses. In the hope of throwing some light on this subject, Prof. Ponfick has subjected the ductus thoracicus to careful examination, in a number of cases of localized and general tuberculosis. He found the duct normal in all the cases in which the tuberculosis was localized in the clinical and anatomical sense of the term, but in the majority of the cases of general tuberculosis it had undergone a peculiar alteration. This consisted in the development of usually multiple, small, tubercle-like nodules in its *intima*. The development of the nodules in this situation is unquestionably an evidence that the lymph which passed through the duct was exceedingly abnormal, that it contained some specifically irritating constituent. It furnishes a tangible proof—and up to the present time the only one—of the contamination of the circulating fluids with a substance, of whose nature we are as yet ignorant, but of whose existence there can no longer be any doubt.—*Berliner klin. Wochenschrift*, 1877, No. 46.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## LEGAL REGULATIONS FOR THE PRACTICE OF MEDICINE.

### III.

SOME may feel inclined to doubt that the rights and duties of the State and county medical societies are as great as has been represented. We will state that many of the acts of the Legislature have not been repealed, although they have not been enforced for a long time, owing to the ignorance, negligence, or reasonable doubts of many of the officers of these societies. In order to prove this, we will give a short outline of medical legislation in this State.

The city and county of New York has always taken the lead in medical matters, and the practice of physic and surgery was first regulated in them on June 10, 1760; and next on March 27, 1792; finally, on March 23, 1797, the first general regulation throughout the State was adopted, authorizing the Chancellor, or a judge of the Supreme Court or of the Common Pleas, or a master in chancery, to license physicians and surgeons without special examination, on receiving evidence that they had studied medicine two years.

This Act of March 23, 1797, was revised and again passed with some alterations on April 4, 1801. It was further amended on March 23, 1803. Finally, the great Act of April 4, 1806, was passed, many of the provisions of which are still in force as revised in 1813, 1818, 1819, 1827, 1830, and 1874. This act incorporated State and county medical societies for the purpose of regulating the practice of physic and surgery in this State, as it was held that no learned profession can become truly respectable, respected, and useful to mankind, that is not under the restraint of the great body of its own members. It was also enacted for the purpose of preventing frauds on the community by ignorant and designing pretenders.

Strange or foreign physicians and pretenders were

not allowed to intrude themselves on the community or the profession without examination of their qualifications; nor were our young medical men, or any of our citizens allowed to practise medicine without the control and acquiescence of the profession; and it was declared that, if the censors of the State and county societies faithfully performed their duties, that the powers entrusted to them were sufficient.

It was made a misdemeanor for any and every one to assume, without warrant, the role and character of physicians, which was ordered to be prosecuted by indictment and punished by the courts with a reasonable and laudable degree of severity. Mere indifference of the officers of the State and county medical societies, and of the profession at large, to the requirements of the laws about medical education and character, was regarded as a dereliction of duty, and, although ungracious tasks were imposed, none were to be allowed to shrink from any rightful share of duty and responsibility.

The Act of 1806 incorporated all well-educated and honorable physicians resident within their limits into county medical societies, delegates from which were formed into the State Medical Society. The duties of these societies were "to control and supervise all medical matters not yet provided for by statute," and to aid the State in carrying out the laws already existing; and, as far as their ability extended, to improve the practice of physic and surgery in this State.

This act, says one of the presidents of the State Society, "brought order out of confusion; settled the minimum measure of medical acquirement that would entitle any one to practise medicine; placed the power of licensing physicians in the hands of the State and county medical societies, and did not allow the diplomas of medical colleges to interfere with its exercise. The profession assumed a new character; emulation was kindled, for the restraints it imposed had long been felt to be necessary.

Again and again the laws of this State declared it to be the duty of the State and county medical societies to control, supervise, and, as far as their ability extended, to improve the condition of the practice of physic and surgery, and, of course, midwifery throughout the State; while the actions and motives of these societies were long in perfect accordance with the laws. The societies met month after month, and year after year, at great expense of time and money, to perform the duties which the law prescribed to them. It was again and again declared the business and duty of these societies to supervise and regulate for the good of the whole, the policy and jurisdiction of the profession, which they did at once, and continued their good work, without imposing any other restraints upon their members and the profession than such as commended themselves to the understanding and conscience of every enlightened individual; they



silently and successfully operated such a change in medical feeling and education as to make the character of the physician honorable and respected.

These societies then had a controlling influence over all the various medical associations throughout the State, including the medical colleges, and from them the people had, and still have, a right to require the most jealous vigilance in all matters relating to the education and deportment of those physicians to whom are committed their dearest interests; and it was repeatedly declared that, "in the whole catalogue of social duties, there was none which involved more weighty obligations, so that mere negligence magnified itself into an offence against society, which admitted no apology, because the evils it entails admit of no reparation."

Almost all the by-laws of the State and county medical societies, except their mere parliamentary rules, were carefully based and worded upon acts of the Legislature; and for many years men of powerful intellect, of unwearied public spiritedness, venerable for their useful lives, and entitled to the deep gratitude of the profession, devoted themselves to carrying out the laws. From 1806 to 1830 the unauthorized practice of physic and surgery was a misdemeanor punishable by fine or imprisonment, or both; and no physician, without being duly licensed and registered, could collect his fees. The laws of 1874 again enforce these wise regulations.

No physician from a foreign State or country could commence the practice of his profession without submitting his credentials to the officers of some county medical society, and if necessary, also to the Censors of the State Medical Society. The presidents of all county medical societies were and are still required to notify all physicians and surgeons to apply for membership in the society of the county in which they reside, and non-compliance subjected them to severe penalties. Diplomas from medical colleges were for a long time not a license to practise until the holders became members of their county societies; and no attempt was made to make the degree of Doctor of Medicine a license to practice until 1814.

The State and county societies alone were entitled to issue licenses to practise, which were given to physicians from foreign states and countries only when they exhibited satisfactory evidence that the course of medical instruction which they had pursued had been as full and complete as required by the laws of this State.

Students of medicine were licensed, and can still be licensed by the State and county medical societies, if twenty-one years of age and of good moral character, but only after four years' study with some lawful practitioner or a regularly educated physician.

In addition, a certificate of the date of commencement of study should be filed by the preceptor with the president of the county society in which such

medical studies are pursued; but, in case of the neglect of the preceptor to file this certificate, the censors were empowered in 1828 to receive such satisfactory testimony as is attainable, especially from the preceptor or preceptors, if living.

As early as 1819, the expressions, "Studied with a *REGULAR* physician, *regularly* studied medicine and surgery," and others of similar import, occur in many of the proceedings of the societies.

From the term of four years of medical study, one year could be deducted if an ordinary collegiate course of Latin, Greek, and Mathematics had been pursued for one year after the age of sixteen, in some incorporated college; or, for one full course of medical lectures in a regularly incorporated medical college, of which the tickets of the several professors should be the only evidence. But in no case could less than three years' study of medicine entitle a student to apply for examination.

The student was also obliged to declare that the full term of three years had been applied to the study of medicine, and to no other pursuit. He was also obliged to declare that he had been examined and rejected by no other county medical society; for a student so rejected could and can only appeal to the State Medical Society, and could not and cannot be re-examined and licensed by any other county medical society; while a student rejected by the State Medical Society could not and cannot be re-examined by any county society, but only by the same State Medical Society.

As these rules still hold good with all county medical societies, including the Homœopathic and Eclectic, they doubtless will also obtain with all State Medical Societies. Thus, if a student or applicant for a certificate of qualification from the Medical Society of the County of New York be rejected, he cannot lawfully be re-examined by the censors of any of the Homœopathic or Eclectic County Medical Societies, but can only appeal to the Medical Society of the State of New York, and if rejected by that, he cannot properly take refuge and comfort with the Homœopathic and Eclectic State Medical Societies.

All the licentiates of the State and County Medical Societies were and are obliged to sign the following declaration, viz.:

"I, A. B., do solemnly declare that I will honestly, virtuously, and chastely conduct myself in the practice of physic and surgery; and that I will with fidelity and honor do everything in my power for the benefit of the sick committed to my charge."

This declaration, so signed, had to be preserved among the archives of the society admitting the candidate.

All those admitted to membership in the various regular county medical societies immediately come under the rules and regulations of the System of Ethics of the Medical Society of the State of New York,

adopted in 1823, and then declared authoritative to govern the medical profession in the State of New York.

This system of ethics was adopted by almost every county society in the following words: "Resolved: That the System of Ethics be adopted by this Society, and any departure from the true spirit and meaning (not merely from the letter) of such system shall subject the offending member to the discipline of this Society."

This would seem sufficient, but it might be advisable to remind each member, when admitted, of these obligations, or even exact some less wordy declaration of fealty, thus:

"I, A. B., do solemnly declare that I will honestly and faithfully conduct myself in the practice of physic, surgery, and midwifery, and do all in my power for the benefit of the sick committed to my charge."

Medical colleges are obliged to exact proofs of good moral character from all their matriculants, and the principal object of county medical societies is to maintain the high and honorable conduct of every medical person upon his or her graduation; and this great object should never be lost sight of!

#### SCHOOL HYGIENE.

It is quite natural, at a time when the school vacation has commenced, to review the doings of the past year, and strive to draw from the experiences of that period profitable lessons for the future. For many reasons, the people at large have great cause for congratulation that the system of public instruction is so perfect and so well adapted to the wants of the hour. A leading daily, in some editorial remarks upon this topic, took the opportunity of saying that in no country was instruction for the masses carried to greater perfection, and in none were the ultimate results of public school training more satisfactory. This will meet a ready endorsement from every one acquainted with the system, and an earnest desire for a continuance of the same condition. It is safe to say, that far from any falling off of interest in these matters, the Board of Education are constantly making improvements and striving after absolute perfection. So far there are no regrets to offer. The case is very different, however, when we glance at the sanitary care of the scholars. In this regard it is perfectly safe to say that the children are almost precisely in the position they have been for the past five years. The School bill, as is well known, failed to pass in consequence of its late presentation, and the Board of Education has been left to manage sanitary affairs in its peculiarly ignorant and stupid fashion. Ventilation is still defective, the light is bad, the water-closets are offensive, the class-rooms, especially those of the lower grades, are overcrowded, and the numerous additions to the buildings made during the past year have repeated the defects which have

heretofore existed. Aside from this no movement has been made to shorten the hours of study for the lower grades, a matter so clearly within the jurisdiction of the Board that there does not seem to be any reason for a non-compliance with suggestions other than a stubborn determination to carry out a particular policy. During the present vacation several additions are to be made to the school-buildings, but if we are to judge the future by the past, we must expect the same routine repetition of blunders, and the same conditions which in future will be causes for complaint. This is certainly a melancholy outlook, but is perhaps the best that can be expected under the present administration. It would appear that the Health Board is powerless to do anything but make suggestions, as by the present law the Educational Board makes its own sanitary regulations, and enforces them or not, as it pleases.

#### THE ELEVATED RAILROAD AND THE MEDICAL PROTEST.

THE recent protest of a number of physicians of this city against the noise of the Metropolitan Elevated Railroad has been given to the public in a shape which will doubtless command considerable attention. Aside from the reasons why the din and racket should be abated, as set forth in the document, the formal presentation of a complaint to the Grand Jury will doubtless bring the whole matter up to the level of a fair and impartial discussion. There is no doubt that in the aggregate the harm to those of delicate nervous organizations, to convalescents, *et id omne genus*, is very great, and that some radical measures should be demanded to effect a change.

### Reviews and Notices of Books.

PUBLIC HEALTH REPORTS AND PAPERS. Vol. III. Presented at the Meetings of the American Public Health Association in the years 1875-1876. Hurd & Houghton. New York.

THE value of this compactly printed volume of 300 pages is twofold, in that, in the first instance, it furnishes a pretty clear exposition of the methods and recent researches of sanitary science in this country, as interpreted by its best masters, thus giving a pretty exact idea of the actual progress of the sanitary movement here; while, in the second instance, its papers themselves are, in the majority at least, real additions to the literature of public medicine. It appears from an appendix by the secretary of the Association that of the ten States that have sanctioned the organization of central (or State) boards of health, three—Alabama, Louisiana, and Virginia—have so far neglected to make adequate appropriations for maintaining the efficiency of said boards; while the seven which have voted the moderate pecuniary aid required, have developed very efficient systems of inquiry and record respecting the causation of prevailing diseases and endemic visitations, and have collected and disseminated an amount of sanitary information, coupled with practical suggestions, which demonstrate the utility and profit to States of such



organizations. In Alabama and Texas, in particular, although the people at large have failed to respond to the efforts of medical men to effect an improved sanitary administration, the attention of leading publicists has been attracted to the subject in a manner that bids fair to eventuate in effectual legislative intervention. One group of points upon which the secretary very properly congratulates the Association is the increasing popularization of sanitary science that has resulted from founding central health boards, the quickened spirit of inquiry in relation to the general causes of disease, and the improvement of school hygiene during the last two years. The medical profession, civil engineers, public health officers, and the educated classes generally, have thus been brought into cordial co-operation in organizing and superintending the registration of vital statistics, and in establishing methods of exact statistical, topographical, and geological inquiry, in place of the random guesswork that prevailed so very generally only a few years ago. The questions of sanitary police and the supervision of contagious diseases have been very especially forced upon popular attention by the efforts of such bureaus; so that the physicians of the United States may well felicitate themselves upon having at last obtained a popular hearing as respects the more important problems of public medicine. The mountain is now passed; henceforth the way to sanitary reform, in all its aspects, is easy and simple.

The bulk of the volume is composed of about thirty special papers, in the preparation of which by their respective authors special reference has been had to treating the topics discussed in a popular manner, and to the exclusion of the dry details of statistical tables. Dr. Flint's paper, "Food in its Relations to Personal and Public Health," is a model as respects these qualities, while, at the same time, it is conceived and executed in the largest spirit of science, dealing in ripe results rather than in tedious processes. His main argument is directed against the long popular, but now partly abandoned theory that extreme abstemiousness is conducive to vigor and longevity, and to the evidence that a full and generous alimentation is one of the essential conditions of physical and mental efficiency. His final conclusion is that all theories and hypotheses which are in antagonism to the instinctive provisions for alimentation, must lead to practical errors. Hence it is equally an error to live upon vegetable food alone, or exclusively upon animal, and the instances of the former quoted by fanatics only prove, in his opinion, that life and fair health may be maintained under considerable difficulties and disadvantages.

The "Sanitary Regulation of Abattoirs," by Henry G. Crowell, of the Boston Health Board, while a great part of its material is only of local interest, contains many practical observations and suggestions that are valuable to all city communities. He quotes, in particular, a vivid picture from Prof. Dalton, of the manner in which cattle are herded in this city previous to slaughtering, which is worth the consideration of public-spirited citizens who may be inclined to censure our Board of Health as a little fussy. The board has, however, accomplished a great deal in the sanitary police of slaughter-houses since Dalton wrote his picturesque paragraph, though the problem of disposing of the 4,000 tons of offal and 450,000 gallons of blood annually produced by the slaughter-houses of New York, is still an unsettled one in many respects. They have dealt more radically with this question in provincial Boston than in cosmopolitan New York; the business of slaughtering having been prohibited

within city limits since June, 1876, and the new abattoir at Brighton, covering an area of about fifty acres, having practically obtained a monopoly of the business. Mr. Crowell devotes the two concluding pages of his article to a description of the great Brighton abattoir and its conveniences for the disposal of offal, fat, blood, etc., which is worthy the perusal of medical men who may not have inspected that model edifice. How far in advance of New York Boston is as respects the slaughtering and distribution of animal food, can only be inferred from a careful reading of the facts brought to light in the Transactions of the Association; and the contrast should certainly stimulate our own Board of Health to seek the legislation essential to the adoption of some such plan here. A general inspection act to protect the people against the liability of buying or eating diseased or unwholesome meat, gives to inspectors, not in Boston only, but throughout the State, the power to enter all buildings or enclosures where animals are stored for slaughter, and to seize and destroy all such as are unfit for human food. The point of Mr. Crowell's paper is that the business should be all concentrated in one locality, with suitable buildings and appliances, properly inspected and policed, and not scattered in small and unsuitable structures, rendering nugatory the closest sanitary supervision.

Very properly the paper of Dr. E. H. Janes, our Assistant Sanitary Superintendent, on the "Abattoirs and the Slaughter Business in New York," follows that of Mr. Crowell, and completes the contrast that has been hinted at in the preceding paragraph—a contrast very uncomplimentary to the intelligence and public spirit of our citizens, and equally so to the procrastinating, compromising weakness of our State legislation on this important sanitary issue. Dr. Janes proposes the same remedy here that has proved so advantageous in Boston, to wit, the concentration of the business in large and well-adapted and policed abattoirs; but precludes his proposal with a picture so dismal and discouraging of the existing state of the business, that it should stimulate the medical profession at large to spare no effort to create a public opinion fairly appreciative of the facts and of their peril to public health. The influence of State health boards in promoting the ends of sanitary science, and developing a valuable literature of the same, receives, indeed, a telling exemplification in this report of the American Public Health Association, and suggests the propriety of pressing the question of a central organization in this State upon the attention of the Legislature; for, while the medical men of New York are fairly represented in the volume, its thorough sanitary papers are, for the most part, from States in which such organizations have existed for several years. The paper on "Expert Testimony and the Public Service of Experts," by Prof. Emory Washburne, of Cambridge; that on "Expert Supervision of the Construction and Internal Arrangement of Public Institutions," by Dr. Steiner, and Dr. Garvin's report on the "Sanitary Requirements of Factories," are all examples of the influence of the State Board of Health, Mass., not only in stimulating exact methods of inquiry, but in fostering coherent thought as concerns the most important questions of public medicine—how hygienic reforms are to be effected, the legislation essential to give practical significance to them, and the best methods of educating public opinion. The report of Prof. Wood, of Harvard University, on "Illuminating Gas in its Relation to Health," forms but another illustration of how far central organizations contribute to build up a cohe-

rent literature of sanitary science, and through such a literature to create the public opinion essential to procure legislation in the first instance, and to enforce it in the second.

The subject of marine hygiene, forming the third division of the report, supplies the themes of three papers, giving, within moderate limits, a *résumé* of the literature, legislation, and actual facts, that will be of lasting service to the medical inquirer. The "Safety of Ships and of those who Travel in Them," by Supervising Surgeon General Woodworth, of the United States Marine Hospital, very naturally occupies the first place, and gives, besides practical suggestions, a thorough survey of the sources of information and the statistics of marine sanitary science in the United States, discussing the progress and value of the Coast Survey, and the respective present conditions of the Light-House and Life-Saving Service, the Marine Hospital, and the Steamboat Inspection Service, with an intelligence and exactness that only an expert can acquire. Medical Inspector Gihon, of the navy, follows in a paper urging the "Need of Sanitary Reform in Ship-Life," discussing the causes of the low average of life in the marine service, exposing the defective ventilation of vessels, and finally adverting to that prolific source of shortened life-terms among sailors, venereal disease, and the legislation essential to its control and final extermination. "Our ships," says this distinguished expert, "are not only carriers, but generators of disease. In the history of the navy, there are many instances where disastrous zymotic fevers have been developed on board men-of-war from the decomposition of chips and sawdust, planked up with scandalous criminal negligence beneath the ceiling during construction, and there left to rot with other vegetable refuse from provisions and stores." He concludes by advocating a thorough sanitary inspection of the navy and commercial service; and is followed by Dr. A. N. Bell, of this city, in some practical conclusions respecting "Marine Hygiene on Board Passenger Vessels," based upon the experience of ocean lines in communication with New York, commencing with 20,000 emigrants to the United States who perished of ship-fever in the year 1847, and tracing the comparative mortality in sailing vessels and steamers from that date to 1876. It appears that the ratio of deaths in sailing vessels is five to one as compared with steamers, and that the elimination of the former from the emigrant carrying service was mainly in consequence of that fact.

The papers included within Part IV. of the report are some of them very striking, although little space is left to allude to them, and readers must be referred to the volume for glimpses of the facts collected and discussed by Director Gardner, of the State Survey, on "Topographical and Sanitary Surveys in their Relation to Public Health Studies," and by Mr. Shedd, of Providence, on "Water Supplies for Large Institutions and Small Communities." Dr. Elisha Harris reports upon the progress of a "Plan for a Sanitary Survey of the United States," but proposes nothing very definite. Kirkwood's work on the "Fluvial and Pond Basins" of the central tract of New England, the surveys of which were made under the auspices of the State Board of Health, Mass.; Engineer Shedd's contour maps of the sewerage and drainage of Providence and the vicinity; Prof. Newberry's geological survey of Ohio; Prof. Cook's of New Jersey, and the topographical survey of New York under the direction of Engineer Gardner, are illustrations of the materials that a sanitary survey may

be expected to develop. The Signal Service Bureau might, Dr. Harris thinks, become an important source of information.

But such movements are perhaps too far in advance of public opinion to obtain a very respectful hearing; and there are other papers of more immediate import to be noted—for example, Engineer Shedd's notes on "Water Supplies for Large Institutions and Small Communities," and the able and almost extraordinary article on the "Sanitary Appointments of Dwelling-Houses," by Ezra M. Hunt, M.D., Secretary of the State Board of Health of New Jersey, which will be discussed more at length at some time hereafter, inasmuch as it abounds in facts and original suggestions that cannot be condensed. The exhaustive dissertation on the "Gases of Decay," contributed by Prof. Brewer, of Yale College, must also be read as a compact whole to be appreciated; while Colonel George E. Wiring's paper on the "Sanitary Condition of Country Houses and Grounds" may be recommended to our rural subscribers as worthy of careful attention upon a subject that interests their practice.

The work of the Association for 1875 and 1876 has thus been rapidly sketched, with the omission of matters of minor interest. The value of State boards of health, once alluded to, has a particularly pertinent illustration in Dr. Hunt's paper just cited, which may be regarded as one of the direct products of an aptitude for sanitary research fostered and stimulated by a central bureau promotive of such work; and while all the papers are intended for general circulation, and are popular in their treatment, for thoroughness and largeness of thought they compare favorably with the best English literature of sanitary science. Indeed, for grasp, penetrating power, and originality, Dr. Hunt's article is scarcely inferior to Pettenkofer's famous inquiry as respects the etiology of typhoid fever.

## Reports of Societies.

### AMERICAN NEUROLOGICAL ASSOCIATION.

*Fourth Annual Meeting.*

HELD IN THE CITY OF NEW YORK, JUNE 19, 20, AND 21, 1878.

WEDNESDAY, JUNE 19—FIRST DAY—AFTERNOON SESSION.

The Association met at the College of Physicians and Surgeons, on Wednesday, June 19th, and was called to order at 2.30 P.M. by the Secretary, Dr. E. C. SEGUIN, of New York.

On motion, Dr. R. T. EDEN, of Boston, was elected President *pro tem*.

Reading of minutes dispensed with.

#### PRIZE ESSAYS.

The report of the Committee on Essays competing for the prize offered by Dr. Hammond, of New York, was read. The subject given was ON THE PHYSIOLOGICAL ACTION OF STRYCHNIA ON THE BRAIN, SPINAL CORD, AND NERVES. When the envelope bearing the motto of the successful essayist was opened, it was found to contain the name of Dr. E. C. SPITZKA, of New York.



DR. S. W. WEBBER, of Boston, Second Vice-President, took the chair.

DR. J. S. JEWELL, of Chicago, by letter offered a prize, for the ensuing year, of two hundred dollars for the best original researches on the physiology of the nerves of the uterus and the ovaries.

The resignation of Dr. Walter Hay, of Dubuque, Iowa, was read and accepted.

DR. HAMMOND renewed his prize of two hundred and fifty dollars. Neither the conditions of the prize nor the subject were stated.

#### THE COMMITTEE ON NOMINATIONS.

The Vice-President appointed Drs. Edes, of Boston; Shaw, of Brooklyn; and Mason, Gibney, and Beard, of New York, as Committee on Nominations.

The first paper was read by DR. E. C. SPITZKA, of New York, and entitled

#### THE OLIVARY BODY IN MAN, THE CHIMPANZEE, AND IN THE LOWER MAMMALIA.

The first trace of the olivary body which was found in the lower animals was the homologue of the internal accessory olive of man, and could in both instances be traced to be continuous with part of the anterior gray cornua of the cord. The next step was the development of a U-shaped involution, which was the homologue of the true olivary body, and which became more and more complicated as we proceeded from the carnivora to the South American, thence to the Old World monkeys, and reached its highest point in man. The olive of the anthropoid chimpanzee was less different from that of man than it was from that of the baboon, and there were individual variations in the shape and size of the olive, especially among imbecile and idiotic human beings, which approximated the ape type.

The paper was discussed by Drs. Webber and Putnam, of Boston.

#### A CASE OF PROBABLE HEMORRHAGE INTO THE CERVICAL ENLARGEMENT OF THE SPINAL CORD.

DR. J. J. PUTNAM, of Boston, reported a case in which, he thought, the suddenness of the development of the symptoms and the permanence of the paralysis left but little doubt that there was hemorrhage into the cervical enlargement of the cord. There was no autopsy. The patient was a female, 30 years old, and without suspicion of constitutional disease. She was seized suddenly with a sensation of tightness about the chest and essentially complete paralysis of the arms and shoulders, and notable paralysis of the intercostal and abdominal muscles. At first there was severe pain in the cervical region and shoulders. Subsequently sensation was so disturbed that the strongest means did not excite pain in the arms, and yet the slightest touch could be appreciated. The electrical reaction was entirely destroyed in the muscles affected. With reference to the distribution of the paralysis, Dr. Putnam thought it could not be explained on anatomical grounds either in this case or when it occurred as the result of poisoning by certain substances. He believed there were different degrees of vulnerability of nerves, and that in cases in which the muscles of the fingers were involved the paralysis was due to that fact rather than a lesion occurring invariably in particular regions of the cord. In other words, the nerve-nuclei supplying the muscles had a peculiar vulnerability.

DR. BEARD, of New York, remarked that the com-

munication made by Dr. Putnam was interesting in that he had called attention to the fact of certain muscles being affected while others remained unaffected. In certain conditions of the spinal cord, where there was no positive lesion, Dr. Beard had noticed that parts supplied by the ulnar nerve were numb at times. In other cases all the fingers were numb at times; and why those nerves more than any other, he was not able to answer, except upon the supposition that they were more susceptible—a supposition which at present could not be explained. In these cases there was almost invariably tenderness about the spine, and at times numbness. An interesting therapeutical fact was that counter-irritation, usually small blisters, would remove all spinal tenderness, and with that the numbness. In all the cases the numbness was functional.

DR. E. C. SEGUIN, of New York, was indisposed to conclude, from the suddenness of the paralysis, that the symptoms were due to hemorrhage into the cord. The development of paralysis in infantile cases was sudden, and yet there was but one case on record in which clot was found.

Reference was also made to a case in which there was a sudden accession of symptoms, the man falling in the street. There were no symptoms above the neck. The patient died in the course of a few days of asphyxia. Diagnosis had been made of *hemorrhage into the spinal cord*, but upon making the autopsy the exceedingly rare lesion of

#### RED SOFTENING OF THE CERVICAL ENLARGEMENT

was found.

The anæsthesia was a more important symptom, but that did not seem to be complete.

With reference to the origin of the nerve, he had been able to produce a sensation in the distribution of the ulnaris by galvanizing the spine in the region of the root of the sixth cervical.

DR. PUTNAM remarked that he was not inclined to cling to his diagnosis, and thought it probable that the change in the cord was inflammatory.

#### ON THE CAUSE OF TRANSMISSION OF THE ELECTRICAL STIMULUS ACROSS THE MEDIAN LINE OF THE BODY.

DR. G. M. BEARD, of New York, made a contribution, the basis of which was Dr. Weir-Mitchell's paper upon the above subject, published in the last volume of Transactions of the Association.

Dr. Mitchell had supposed that the transmission of the electrical stimulus across the median line of the face was a new fact in electricity, and, associated with Prof. Barker, of Philadelphia, had reached the conclusion that it was due to the development of induced currents.

Dr. Beard regarded Dr. Mitchell's observation as correct, but his explanation was incorrect, as could be easily demonstrated by Ohm's law, and experimentally by means of the galvanometer and the galvanoscopic frog. The true explanation was, that diffusion of a very moderate quantity of the galvanic current occurred.

DR. WEBBER, of Boston, remarked that there were many electrical phenomena which probably were due to diffusion of currents.

In that connection he referred to two cases in which spasmodic contraction of the muscles of the face could be produced by influencing the emotions, the contraction occurring while the electrode was at considerable distance from the face. He did not think that the current was diffused through the air.

## AFFECTIO OF THE SPINAL ACCESSORY.

DR. SPITZKA exhibited a case in which there were spasmodic contractions of every muscle supplied by the spinal accessory nerve. There were no physical signs of thoracic disease. There was paralysis of the vocal cords.

## GALVANOMETER.

DR. PUTNAM exhibited a galvanometer, with markings indicating *units of quantity of electricity* rather than corresponding portions of a circle.

The Association then adjourned, to meet at 8.30 P.M.

## EVENING SESSION—FIRST DAY.

The Association was called to order by the Vice-President, Dr. Webber.

The Council reported the name of DR. L. C. GRAY, of Brooklyn, for membership, and he was unanimously elected.

## SUGGESTION AS TO THE NOMENCLATURE OF INFLAMMATORY AFFECTIONS OF THE SPINAL CORD.

DR. WEBBER, of Boston, read a brief paper in which he suggested the use of terms indicating the character of the disease affecting either the white or the gray substance of the spinal cord. Myelitis was the only term in use which in any way indicated the nature of the affection. The terms acute interstitial and acute parenchymatous myelitis were suggested, although clinically they could not yet be distinguished with certainty. The term chronic parenchymatous myelitis was suggested as a substitute for locomotor ataxia, and chronic interstitial myelitis for sclerosis in patches.

## RECOVERY OF VISION AFTER BLINDNESS FROM BRAIN DISEASE.

DR. A. D. ROCKWELL, of New York, reported a case in which there was total loss of vision and subsequent complete recovery of sight. The patient was a man in middle life, and the subject of epileptic seizures.

Dr. Rockwell supposed the loss of vision was due to indirect or reflex injury arising from lesion in the neighborhood of the tubercula quadrigemina.

The paper was discussed by Drs. Seguin, Putnam, Webber, and Spitzka.

## CLINICAL AND THERAPEUTICAL CONTRIBUTION TO OUR KNOWLEDGE OF CERVICAL PARAPLEGIA.

DR. E. C. SEGUIN, of New York, read a paper in which were embraced the detailed history of three cases. In the first case the myelitis was arrested by the use of nitrate of silver, arsenic, oxide of zinc, cod-liver oil, thorough galvanization and friction. There was a certain resemblance in the case to acute spinal paralysis of the adult. In the second case there was marked improvement, but it might be said to be due to anti-syphilitic treatment and to rest. The third case had been under treatment only a short time. In all three cases the kinesodic, the æsthesodic, and the musculotrophic tracts of the cord were affected.

## APPARATUS FOR THE RELIEF OF WRITERS' CRAMP.

DR. G. M. BEARD exhibited an apparatus for affording relief in writers' cramp. It consisted of a penholder with rings and supports, so adjusted that the index and middle fingers could be used independently of support from the thumb, and also without being subject to the pressure made by holding the pen or pencil in the usual manner.

## NEW APPARATUS.

DR. PUTNAM exhibited an apparatus for supporting the hand in cases of "wrist-drop." It consisted chiefly in a modification of Barwell's artificial muscle.

The Association then adjourned, to meet on Thursday, June 20th, at 2 P.M.

## THURSDAY, JUNE 20TH—SECOND DAY—AFTERNOON SESSION.

The Association was called to order at 2.30 P.M. by the Vice-President, Dr. Webber.

## REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations made the following report: For *President*, Dr. F. T. Miles, of Baltimore. For *Vice-President*, Dr. S. G. Webber, of Boston. For *Secretary*, Dr. E. C. Seguin, of New York. For the *Council*, Dr. J. J. Mason and Dr. F. P. Kinnicutt, of New York.

The report was accepted and adopted.

After the transaction of miscellaneous business,

DR. N. B. EMERSON, of New York, reported a case of

## PROBABLE ANEURISMAL TUMORS OF THE BRAIN.

The patient was a male, æt. 46, who denied syphilis but suffered severe pain in the head, chiefly in the occipital region, and had some loss of memory. His gait was somewhat tottering, but there was no paralysis. Voluntary movements were performed with tolerable precision. He said he had never had a convulsion, but his wife stated, after his death, that he had had convulsions occasionally during the last year of his life. He died in a convulsion. Sensibility normal. His urine had a low specific gravity, and contained albumen and casts. There was atrophy of the optic nerve, and retinal hemorrhage. There were hemorrhagic patches of varying size on the surface of the body, which were persistent, and increased in number up to the time of death. There were no hemorrhagic discharges from the body.

At autopsy, small bodies were found in the gray matter of the brain, generally located near the pia mater. They appeared to be surrounded by a capsule, and when cut presented an appearance as if made up of a number of laminae of different colors. They were about 2.5 mm. in diameter. Microscopical appearances: Central portion consisted of amorphous matter; outside of that was a zone of granular matter with fibrillation towards the periphery, and containing round nuclei; outside of that a zone of fibres, wavy, irregular, nucleated; also contained free nuclei and possibly spider-cells. The outer zone was rather vascular. Dr. Emerson regarded the bodies as *large healed miliary aneurisms*.

DR. SPITZKA regarded them as miliary syphilomata of a myxomatous nature, having their origin in the adventitia of the blood-vessels.

DR. SEGUIN thought they were aneurismal tumors, because the central portion had the appearance of a thrombus undergoing retrograde metamorphosis, and also because there was no evidence of the connection always present between a gummatous growth and the normal tissue in which it occurred.

DR. EDES, of Boston, regarded the tumors as aneurismal.

DR. E. C. SPITZKA, of New York, then gave a

DEMONSTRATION OF THE BRAIN OF THE MENOBANCHUS by means of microscopic specimens. Special attention was called to the large size of the nuclei, the fibrillar



structure of the protoplasm, and the embryonic condition of the hemispheric cortex. One specimen exhibited showed a powerful axis-cylinder process, clearly traceable through the whole cord to the root-region of the anterior nerve-roots.

DR. EDES asked if Dr. Spitzka had seen anastomosis between the processes of ganglion-cells.

DR. SPITZKA thought he had seen unquestionable anastomosis.

DR. EDES remarked that he had many times looked carefully for anastomosis, and, in one specimen, he for a long time supposed that an anastomosis could be demonstrated, but finally he discovered that it was only apparent, and that one process was lying upon another.

DR. SEGUIN remarked that he had had the same experience related by Dr. Edes, and that his supposed anastomosis had been resolved into super-position of fibres.

#### SYPHILITIC DISEASE OF THE SPINAL CORD.

DR. S. G. WEBBER, of Boston, Vice-President, read a paper containing the history, and exhibited microscopic specimens illustrating the pathological changes attendant upon a case of syphilitic disease of the spinal cord. The case was interesting chiefly because of the enormous increase of spider-cells. With that there was also increase of nuclei and fibrous tissue. The newly-formed tissue was developed at the expense of the nerve-fibres and cells. It was a variety of glioma. The greatest change was just below the cervical enlargement, especially upon the left side, and the central part of the cord was occupied by a mass of diseased tissue.

DR. SEGUIN remarked that the spider-cell was found in a great variety of conditions, and that, in conjunction with Dr. J. C. Shaw, of Brooklyn, they had made an effort to determine in their own minds how far the presence of such cells could be regarded as conclusive evidence of actual inflammatory action; that is, of abnormal nutrition in the very elements of connective tissue, as compared with degenerative changes which occurred in nerves and nervous tissue.

DR. WEBBER regarded the spider-cell as a neuroglia cell. Of course such a demonstration was not easy, because of the presence of the nerve-fibres. When inflammatory change was set up, the cells invited carmine more readily, and their processes could be more easily seen than in normal specimens. When the inflammatory process became chronic, the cells took the carmine less readily, and it was sometimes difficult to see them. That was the stage of atrophy. He thought it was fair to conclude that every large nucleus, especially oval-shaped, was the nucleus of a spider-cell. He regarded the cells as evidence of inflammatory action.

DR. SEGUIN fully accorded with Dr. Webber, and said that in addition he had noticed what could be called cloudy swelling of the spider-cells.

DR. WEBBER had observed the same thing, and in addition an appearance which seemed to indicate that white blood-corpuscles had migrated into the spider-cells. He also believed that they underwent fatty degeneration, and in that way disappeared.

DR. SHAW remarked that the condition of fatty degeneration of the cells could be seen to good advantage in the last stages of disseminated sclerosis of the cord. He also thought that the presence of two or three nuclei, or leucocytes according to Dr. Webber, was due to division of the nucleus.

DR. WEBBER remarked it was quite possible that such was the case.

#### SOURCES OF ERROR IN EXPERIMENTING UPON HUMAN BEINGS.

DR. G. M. BEARD, of New York, read a paper in which he maintained that the sources of error in experimenting upon human beings were six in number:

1. The phenomena of involuntary life in both experimenter and the subject experimented upon.

Without a knowledge of that side of physiology scientific experimenting upon human beings was impossible.

2. Unconscious deception upon the part of the subject experimented upon.

That was a source of error which must be carefully guarded against in all ordinary experiments with reference to new remedies. Miracles of healing came under that head.

3. Intentional deception upon the part of the subject.

General reputation for honesty must be ruled out as unscientific.

4. Unintentional collusion of third parties.

Third parties must remain absolutely silent and motionless during certain experiments—a thing impossible for some persons.

5. Intentional collusion of third parties.

6. That which came from chance and coincidence.

Dr. Beard concluded by saying that delusions almost always found their weapons in scientific armories. Experiments should be made only where inductive reasoning did not settle the question. When experiments were made, sources of error should be carefully considered.

The paper was briefly discussed by Drs. Mason, Kinnicutt, Seguin, and Putnam.

The next paper was read by DR. E. C. SEGUIN, on

#### AMYOTROPHIC LATERAL SCLEROSIS.

The paper embraced the history of a case and a description of the pathological lesions. The lesions were demonstrated by means of microscopic specimens.

Dr. Seguin was not able to say what became of the sclerosis above the decussation in the pyramids.

He localized the change in the crossed pyramidal column.

He regarded the lesion as truly inflammatory.

The paper was discussed by Drs. Shaw and Putnam. The Association then adjourned, to meet at 8.30 p.m.

#### EVENING SESSION—SECOND DAY.

The Association was called to order by the Vice-President.

The first paper was read by DR. L. C. GRAY, of Brooklyn,

#### ON CEREBRAL THERMOMETRY.

The object of the paper was to show that temperature, as determined by thermometers applied to the surface of the scalp, was a valuable aid in the diagnosis of brain disease. The thermometers were arranged in a belt which surrounded the head. The temperature was taken at stations where the coverings of the brain were thinnest. Dr. Seguin's surface thermometers were employed, so modified that pressure did not vary the elevation of the mercury, and also made self-registering.

If the temperature was elevated more than 2 or 2½° F. above the normal, an abnormal condition of the cranial contents was to be suspected. Dr. Gray had examined a large number of cases, and in some had verified his diagnosis by post-mortem examination.

DR. WEBBER could not readily understand how the

change in temperature of the brain should be so localized when it was not immediately connected with the skull or the scalp.

Dr. SITAW referred to the same point.

Dr. GRAY thought the thermometer could indicate the temperature of the cerebral surface because both the skull, which was a thin layer of bone in places, and the scalp were good conductors of heat.

Dr. SEGUIS thought that *delicate* cerebral thermometry was not of much value, but that the limits put upon it by Dr. Gray rendered it capable of being of some service.

Dr. A. McLANE HAMILTON, of New York, thought it probable that the functional disturbances of the scalp would explain the variation in temperature. Discussion was continued by Drs. Beard, Kinnicutt, Emerson, Hamilton, and Gray.

#### GENERALIZED ATHETOSIS

was the subject of a paper read by

Dr. F. P. KINNICUTT, of New York. The paper consisted chiefly of the history of a case.

It was discussed by Drs. Seguin and Webber.

Dr. V. P. GIBNEY, of New York, gave a detailed history of a case of

#### CERVICAL PARAPLEGIA.

It was a case which presented notable difficulties in diagnosis.

The report was discussed by Drs. Seguin and Emerson.

The Association then adjourned, to meet on Friday, at 2 p.m.

#### FRIDAY, JUNE 21ST—THIRD DAY—AFTERNOON SESSION.

The Association was called to order at 2.30 p.m. by the Secretary, and on motion,

Dr. E. C. SPITZKA, of New York, was elected President *pro tem*.

#### NEXT ANNUAL MEETING.

The Council were authorized to determine where the next annual meeting should be held.

The first paper was read by

Dr. J. J. PUTNAM, of Boston, and entitled

#### OBSERVATIONS ON THE INTRA-OCULAR CIRCULATION.

The observations were made by Drs. Putnam and O. F. Wadsworth, of Boston. After experimenting upon themselves with atropine, nitrite of amyl, pressure upon the carotids and jugular veins, and taking tracings from the surface of the brain of a man who had received a fracture of the skull, they arrived at the following conclusion: that mechanical causes did not readily, if at all, induce appreciable arterial congestion of the fundus oculi, and the degree of venous fulness so produced was not such as to justify, if seen in an eye examined for the first time, the belief that it was pathological. They were, therefore, led to doubt whether such condition as congestion of the retina, unassociated with inflammation of a greater or less degree, in which case the term congestion would be, properly speaking, a misnomer, was ever met with.

Dr. J. C. SHAW, of Brooklyn, remarked that in conjunction with Dr. Matthewson, of Brooklyn, he had performed a series of experiments, and they had arrived at the conclusion that but little reliance could be placed upon ophthalmoscopic examination of the

eye with reference to cerebral anemia or hyperemia. They were positive that no arterial change occurred, and the venous change was very trifling, if any at all was produced. Drs. Shaw and Matthewson experimented to considerable extent with quinine.

Dr. GRAY, of Brooklyn, thought it unfair to infer that the ophthalmoscope was useless as an aid in determining the condition of the cerebral circulation merely because quinine administered in large doses produced no appreciable change in the condition of the vessels of the fundus, for it was not yet determined whether quinine produced anemia or hyperemia of the brain.

Dr. BEARD referred to an injected condition of the conjunctiva commonly seen in cases of nervous debility. Such an appearance of the conjunctiva was not to be regarded as pathological, and yet it was probable that the same diffused redness, if seen in the retina, would be regarded as evidence of intracranial lesion, although it possessed no more significance than did the conjunctival injection.

Dr. SEGUIS did not attach much value to ophthalmoscopic observations as commonly made with reference to brain lesions. He regarded it as important to make separate statements in the clinical notes with reference to the condition of the fundus and of the retina.

Dr. SPITZKA spoke of the hyperemia of the optic disk present in the general paralysis of the insane.

Dr. G. M. BEARD related the history of a case of

#### AGORAPHOBIA.

The particular thing which the patient "*could not do*" was, to go to church. After being improved by both local and general treatment the doctor took his hat and said that he was ready to go to church, and the lady went with him and remained through a long service.

The point made in the Doctor's remarks was that it was useless to apply mental therapeutics until the patient's general system was elevated into a tolerably good condition. Objective and subjective treatment should be combined.

#### ELECTROLYTIC TREATMENT OF FIBROID TUMORS.

Dr. BEARD, in speaking upon that question, expressed the opinion that the results brought about in the treatment of that class of tumors were produced through the nervous system, and not by electrolysis; that is, that there was but little chemical change produced in the tumor, the cure being effected by the influence upon nutrition, direct and reflex, and not by electrolysis.

#### JUMPERS, OR JUMPING FRENCHMEN, OF MOOSEHEAD LAKE, MAINE.

Dr. BEARD remarked that he was in the midst of an investigation with reference to automatism of the involuntary life, and for the reliability of the phenomena of which he gave an account he was willing to hold himself personally responsible. There were in the northern part of Maine, among the lumbermen, a large number of Canadian Frenchmen who were called jumpers, or jumping Frenchmen, from the habit which they had, apparently hereditary, of jumping or striking upon any sudden excitation. For example, if one of the jumpers was told he might jump a number of feet, he was not able to resist the order, even though he was jumping into danger, as into a pond. Sometimes severe accidents had occurred in that way. If a number of them were in a room smoking, and a



person suddenly entered and told them to throw away their pipes, they threw them away without reference to risk of breaking them. If, when walking the street, one of the jumpers was told to strike a third party, he was unable to resist and would strike with whatever he had in his hand, and would strike his best friend, even though death would be the result.

The men seemed to be entirely deficient in inhibitory power under sudden excitation. They acted much as though mesmerized or as entranced persons acted when under the control of the operator.

They cannot usually speak the English language, but when suddenly addressed in English they automatically replied in English instantly.

The automatism was a very great inconvenience to the men, but they were entirely unable to control themselves. It was not an epidemic, but was a fixed state or habit affecting a large number of those people life-long, and running in families.

Dr. Beard regarded the phenomena as an extreme illustration of what we all are—that is, they possessed far less inhibitory power than we all possessed.

#### STRUCTURE OF THE GANGLIONIC BODIES OF THE CEREBRO SPINAL AXIS.

DR. H. D. SCHMIDT, of New Orleans, presented a very lengthy paper upon the above subject, which was read by the Secretary.

The conclusion reached was, that all ganglion-cells were composed of two elements, anatomically and functionally distinct. The one was represented by *fine nervus fibrille* (not a network, as asserted by Gerlach), the function of which was to conduct nervous energy; the other, a vesicle nucleus, the function of which was probably to elaborate the potential energy residing in it.

DR. SPITZKA disagreed with the author of the paper in several particulars.

The last paper was read by DR. E. C. SPITZKA, on

#### THE SIGNIFICATION OF THE ABSENCE OF PALPABLE PATHOLOGICAL LESIONS IN CERTAIN FORMS OF INSANITY.

In many forms of insanity, neither structural change nor anomalies of the blood-supply could be demonstrated, and *a priori* such conditions need not be looked for in a disease like intellectual chronic mania, which the writer was inclined to attribute to faulty anatomical association, asymmetries and analogous condition, rather than to structural change.

We should be very careful, in searching for the somatic basis of acute insanities, to bring only such symptoms in relation to the lesion as were manifested shortly before death. The results of so-called researches by American asylum superintendents, referring all insanity to coarse lesions and causes, were declared unworthy of serious refutation or consideration. The writer concluded by stating that the real signification of negative pathological evidence in insanity was to direct our attention to more comprehensive methods of research. Organic chemistry, teratology, embryology, and dynamics would probably reveal as valuable results as the exclusively followed histological method.

DR. E. C. SEGUIN gave notice of a proposed amendment to the Constitution to the effect that hereafter all matters of business be attended to and decided by the Council, subject to the control of the Association.

There being no further business, the Association was declared adjourned, to meet in New York on the third Wednesday in June, 1879.

## Correspondence.

### VOMITING IN PREGNANCY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I noticed, in a recent number of THE RECORD, a *résumé* of an article by Dr. M. O. Jones, of Chicago, relating to the treatment of vomiting in pregnancy.

His recommendation of the local application of caustics calls to mind a case I successfully treated by that means.

Mrs. M—, a symmetrically built and healthy young woman, has been pregnant four times. Vomiting commenced in about three weeks from each conception. This unpleasant symptom continued persistently during each pregnancy, until she aborted, or was delivered at term.

Vomiting was so easily provoked and her general health so soon suffered, that she could do little more than pass the time in an easy-chair, listlessly gazing out of the window, vomiting frequently, and scarcely able to partake of half a meal a day. During one pregnancy, which terminated in abortion at three months, her case became desperate, she being confined to the bed, and vomiting about every ten minutes, except when decidedly under the influence of morphine (hypodermically).

For two weeks all food and drink were rejected, nourishment being received by enemata.

During this time not a drop of anything was taken into her stomach, and still retching and bilious vomiting continued. She was finally relieved by the use of Saratoga water, which, of the numerous remedies tried during her several pregnancies, was the only one that afforded any satisfaction.

Becoming pregnant the fourth time, and receiving no benefit from Saratoga water, Mrs. M. was very much depressed, declaring that she would sooner die than pass another eight months of torture; for the nausea was even more severe than at an equally early period in previous pregnancies.

Realizing the necessity of offering her some relief, and having somewhere seen local treatment suggested, I resolved to try it, even at the risk of exciting abortion. Therefore I made a very thorough application of a saturated solution of nitrate of silver to the cervix uteri.

That night her sleep was undisturbed, vomiting ceased, and did not return during the balance of gestation, except as an occasional morning sickness, which was so slight as to give little annoyance.

Indeed, her health and spirits were never better or more buoyant than during the period of gestation following the application of silver.

A. D. FELTON, M.D.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 30 to July 6, 1878.*

TAYLOR, M. K., Capt. and Asst. Surgeon. Leave of absence extended four months. S. O. 142, A. G. O., July 2, 1878.

CAMPBELL, A. B., Capt. and Asst. Surgeon. Granted leave of absence for two months. S. O. 139, A. G. O., June 28, 1878.

AIXSWORTH, F. C., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Arizona, and assigned to duty in Dept. of California. S. O. 142, C. S., A. G. O.





## Original Lectures.

### ON SYMPATHETIC OPHTHALMIA.

A CLINICAL LECTURE DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

By D. B. ST. JOHN ROOSA, M.D.,

PROFESSOR OF OPHTHALMOLOGY.

(Reported for THE MEDICAL RECORD.)

SYMPATHETIC OPHTHALMIA—ATROPHY OF THE OPTIC NERVE—CAUSES OF THE ATROPHY—TRAUMATISM—TOBACCO AND RUM—SYPHILIS—EXPOSURE TO BRIGHT LIGHT, ETC., ETC.—SYMPATHETIC INFLAMMATION OF THE UVEAL TRACT—TREATMENT.

GENTLEMEN:—I will to-day interrupt the regular order of study for the purpose of showing you an important case.

Last week, you will recollect, I lectured upon the methods of examining the eye. We shall now bring into requisition some of the knowledge then obtained, and endeavor to find out, if possible, from external examination, what the affection is which causes this man to be blind. The history of his case is as follows:

He is forty-five years of age, and a farmer. When fourteen years old he was one day holding a board, through which his father was attempting to drive a nail; the nail glanced and struck him in the left eye. On account of the injury thus received he remained in the house about ten days, and during that time he was unable to see with the injured eye. It is fair to suppose that considerable inflammation occurred. At the close of the inflammatory action he had only perception of light from the injured eye, and it was limited to one part of the retina; light could be perceived only when he looked in a certain direction. Subsequently he attended school as usual, was able to read and write, etc., with the uninjured eye, without inconvenience, and since reaching manhood he has been able to see with his right eye sufficiently well to transact with ease all business incident to his occupation.

About three or four years ago he first observed that he was not able to see so well in the night as in the daytime. That fact showed that the perceptive power of the retina was blunted. The man found greater difficulty in seeing in the night simply because there was not sufficient light. The perceptive power of the retina, or the conducting power of the optic nerve-fibres, was so lessened that they could not do their work unless they were exposed to more than the ordinary quantity of light.

Some eight or ten months ago he first began to notice that he had difficulty in seeing to read and write, and he now comes to us almost entirely blind. He can, in fact, as you see by the tests, only distinguish light from darkness. Here, then, is a healthy man, who, a certain number of years ago, received an injury of the left eye that destroyed its sight. Three or four years ago he first noticed failure in the sight of the right eye, and that failure made its appearance and progressed without pain. The suspicion then at this stage of the examination is aroused, since there is no history of injury of this eye, that he is suffering from *sympathetic disease* of the right eye.

In the next place, we wish to know what the condition of the left eye is. As we look upon it we see that the eyeball is smaller than the right, and that it is also flattened; the cornea is opaque, and is smaller than

in the right eye; the conjunctiva of the lid is very vascular, and so also is that which is upon the eyeball. The eye is irregular in shape, and has undergone such changes in its interior that it has become folded or wrinkled, exactly in the same manner as if my handkerchief was made into the shape of a ball-cover and was filled with a tenacious fluid. As long as the handkerchief is filled completely it will form a complete globe; but if by any means a portion of the fluid is made to disappear, the cover becomes wrinkled. This is what has happened to the left eyeball of our friend: some change has occurred in the interior which has so affected the coats of the eyeball as to give to it this external appearance. Besides this, the cornea is opaque and has a scar upon it.

Let us next see what we can discover by an external examination of the right eye. First, we notice that the cornea is perfectly transparent; the iris and the conjunctiva are sound. There is no evidence whatever of disease in the external portions of the right eye.

[Before this statement had been made by the lecturer, three of the class were called upon to give an opinion as to the appearance of the outer part of the eye. Two of them pronounced the cornea and iris to be diseased, while the third formed a correct estimate of their appearance.]

You observe, gentlemen, that some of you had put yourselves in such a prejudiced frame of mind that you were unable to give a correct opinion, although I asked you to compare the appearance of this man's cornea and iris with my own, in neither of which is there disease. Before you examined the case you believed there was disease in the outer parts, and hence you found it. To cease to form opinions before a case is thoroughly examined, is one of the most difficult things in the investigation of disease. It is, however, an essential to him who would be an intelligent and skilful practitioner. Although the suspicion of sympathetic disease was excited by the history, the objective examination affords us no evidence, or at least none of the usual evidence of such disease. There is no lachrymation, no photophobia, no iritis. These are the usual marks of a sympathetic ophthalmia; but here is a quiet eye, and one without history of inflammation.

The patient cannot count the fingers on my hand; he cannot even see my hand, although he makes an effort, and he thinks he can. The disposition of the human patient to exaggerate his visual power is as marked as that of the consumptive to say that he is "now going to get well." Gentlemen, you will need all your power of objective observation to prevent you from accepting the patient's statement instead of the results of your own examination. Patients who are entirely unable to see fingers, or even a hand, will insist that they are able to see both. They hold up their own hands, of course knowing that they are doing so, and then imagine that they see them. When the right eye is examined by placing a lighted lamp in front of it, you see that he has quantitative perception of light—that is, he can tell light from darkness—but he has no qualitative perception of light. He is unable to see even very large objects by any light.

What has brought our friend to this condition? If we had lived in the olden time, our investigation would at this point cease. But we are now able to go farther, and to determine what the nature of the affection is that I have just given the general name of sympathetic disease. This is done by means of the ophthalmoscope. An ophthalmoscopic examination has already been made, and to as many of you as is possible will be given the opportunity by Dr. Ely of

observing the change which has occurred in the interior of the eye. The examination has revealed atrophy of the terminal extremity of the optic nerve. As seen by the ophthalmoscope, in this case the optic papilla, or optic disk, is very white; it is excavated, and it has scarcely any capillaries. These are the signs of atrophy of the optic nerve, and are to be appreciated only by the use of the ophthalmoscope. As far as can be determined, the remaining portions of the eye are perfectly healthy. Here, then, is a condition which explains this man's blindness: the fibres of the optic nerve which supply the retina have undergone atrophy.

#### CAUSES OF ATROPHY OF THE OPTIC NERVE.

The question now arises, What has caused the atrophy of the optic nerve in this case? Atrophy of the optic nerve arises from a large variety of causes.

If a soldier in battle receives a gunshot wound through his orbit, cutting off the trunk of the optic nerve, atrophy will of course follow.

Again, a man may use *tobacco* and *rum* to such an excess as to give rise to an insidious inflammation, that may be followed by atrophy. The neuritis in this case is perhaps excited by blood-poisoning.

A man may be exposed to a *bright light*, such as the exposure received by roofers, which so affects the eye as to develop a neuritis that will be followed by atrophy.

A man may have *syphilis*, and, in consequence of destruction of the nutritive qualities of the blood produced by that disease, an optic neuritis may be developed which is liable to be followed by atrophy.

There are many cases of atrophy of the optic nerve, however, which have been developed apparently without cause. That is, with our present knowledge and means of investigation, we are not able to find the cause. Anything, however, which can produce neuritis—for example, meningitis extending along the sheath of the optic nerve to the nerve itself—may be followed by atrophy.

*Prolonged or sudden anemia* may deprive the trunk of the optic nerve of the requisite amount of nutrition, and atrophy may follow. *Concussion of the brain* may be followed by atrophy of the optic nerve, and probably of the acoustic nerve.

But we come back to the question, what has caused the atrophy of the optic nerve in this case? We can only say it is probably a *sympathetic trouble*. This is not saying very much, but it is because of our lack of knowledge that we use such a general term. There is a doubt in many minds whether an inflammation of the optic nerve is ever a sympathetic trouble. Such authorities would say that the atrophy in this case is not sympathetic—not dependent upon disease of the fellow eye, but that it is a mere coincidence that it has occurred in this case. Sympathetic disease with them is always an irido-choroiditis. I think the evidence is rather against this view. I am inclined to believe that atrophy of the optic nerve may be one form, although a rare one, of sympathetic ophthalmia.

We know that the optic nerve does not transmit sympathetic trouble, because the optic nerve of the affected eye has been divided in cases of injury, thus "put out of play," as the Germans say, and yet inflammation has extended to the other eye. Sympathetic inflammation probably extends through the nerves which supply the ciliary region coming from the fifth pair and the sympathetic. We know that inflammation is propagated through these nerves, because injuries in the ciliary region, such as wounds, presence of foreign bodies, cicatricial contractions, are very commonly—indeed, I might say almost in-

variably—followed by sympathetic inflammation; whereas, injuries of the eye not involving the ciliary region are not nearly so apt to be followed by such inflammation.

I am not to be understood as saying positively that this is beyond all question a sympathetic condition, for sympathetic neuro retinitis, followed by atrophy, is, as I have already said, rare.

#### SYMPATHETIC INFLAMMATION OF THE UVEAL TRACT.

Another, and much more common form of sympathetic trouble, is inflammation of the iris, inflammation of the choroid, and inflammation of the ciliary body—in other words, inflammation of what is called the *uveal tract*. The iris, the choroid, and the ciliary body constitute what is known as the uveal tract, and you will please remember that this is the great nutritive portion of the eyeball.

The nutrition of the optic nerve in the right eye in this case has been affected, probably, in consequence of the propagation of ciliary irritation from the other eye. It is in this manner, probably, that this man's blindness has been produced.

What can we do for him? But very little. The atrophy has occurred; the tissue is destroyed; the capillaries do not exist; the nutrition of the optic nerve has been removed. The prospect for giving this man vision is exceedingly slight. It would be a perfectly justifiable operation to remove what remains of the left eyeball, which is, perhaps, a slight source of irritation to the other eye; yet I cannot promise that he will recover any sight as a result of the operation, or even retain what he has.

I should think that, perhaps, the chances of improving the sight of the right eye by removal of the left were about one in ten thousand. I am unable to see how changes can occur in this optic nerve that will allow it again to communicate luminous impressions. This is not an operation which, under these circumstances, the surgeon should urge, but a plain, truthful statement should be made to the patient, and then he should be allowed to make his own decision. Were I in this man's situation, I should take the trifling chance which the operation offers, and submit to its performance. I have seen cases, in which atrophy of the optic nerve had advanced to such an extent that scarcely any capillaries existed, so much improved by the use of strychnia, that capillaries again appeared upon its surface. I have seen such cases in my own and in the practice of other gentlemen. If, therefore, I should remove this eyeball, strychnia would enter into the subsequent treatment of the case.

How would the case be altered, had the patient more perception of light, if there were lachrymation, and inflammation of the iris and the choroid? Then I should urge the operation; and if the patient was a minor, and I was responsible, I should put him to sleep and have the eye removed, whether he was willing or not.

If he had sympathetic irritation, manifest by lachrymation and what is commonly known as weakness of the eyes when they are called upon to work, I should be even more urgent regarding the removal of the eyeball, and should feel quite safe in promising him that he would fully recover his sight; but when the inflammatory process has become established, I should be very guarded in an opinion given with reference to the ultimate results of the operation, for you are not at all certain that you will cut off the inflammation.

Thus, gentlemen, you see the importance of a case in which injury has been done to an eye by a foreign body. If a foreign body enters the eye, every reason-



able attempt should be made to remove it; but if such efforts fail, the eyeball should be enucleated. You are not to allow a person with inflammation of the eyeball from injury, or from the presence of a foreign body, to go from your observation with a weeping eye upon the opposite side. Such cases are serious, and you should give the eyes of such persons the most exact examination, and determine whether or not there is any failure of vision. As long as there is merely lachrymation, as long as there is no inflammation, you may hope by removing the affected eye to save the other.

As soon as sympathetic irritation occurs, immediately remove the eyeball which has been injured. That should have been done in our friend's case, but he has been unwilling to admit that his sight was failing, and now all that remains for him is to decide whether or not he will take the very slight chance offered him by an operation.

[The patient decided not to have the operation performed.]

## Original Communications.

### THE NITRITE OF AMYL AS AN ANTIDOTE TO CHLOROFORM.

By F. A. BURRALL, M.D.,

PHYSICIAN TO THE PRESBYTERIAN HOSPITAL.

IN September, 1876, I read a paper before the New York Academy of Medicine on "Nitrite of Amyl as an Antidote to Chloroform," which was afterwards published in the *New York Medical Journal*. In this paper the drug was described, and the experiments which were made by others and myself on the inferior animals were detailed at length, as well as a few instances in which the remedy had been used successfully with man, where death seemed imminent as a result of the inhalation of chloroform. I also mentioned in that paper, that in the *New York Medical Gazette* of June 11, 1870, I had suggested the use of the amyl nitrite "in the threatened syncope from chloroform," and that this, as far as I knew, was the first suggestion of the kind which had been made. The remedy seemed worthy of further trial, and the paper closed by recommending that "when chloroform is used, the nitrite of amyl should be at hand as one of the remedies whose efficiency is to be tested in case of impending danger."\*

Seventeen deaths were recorded in the medical journals of 1877 as having occurred in connection with the administration of chloroform. Perhaps more were reported, but these are all which I found after a rather careful examination. It cannot be supposed that this represents the entire annual mortality from this treacherous anæsthetic, but even this number is large enough to make us wonder that so many physicians still regard chloroform as safe. In only one of these cases is there any mention of the employment of the nitrite of amyl, and here the patient's constitution was greatly shattered. A post-mortem examination showed "an advanced stage of fatty deposition upon and degeneration of an enlarged heart. There was also a layer of fat on the pericardium, and old pericardial adhe-

sions. The walls of the heart were pale and flabby; that of the right ventricle was thinner than normal; the cavities were dilated and empty. The valves were perfectly healthy, but the aorta was atheromatous. The lungs were extremely congested, and the base of the right hepatized and bound down by firm adhesions. The apices of both contained numerous nodules of caseous matter, which in several places had softened into small vomiceæ. The liver, kidneys, and spleen were enlarged and congested. There was chronic gastritis and inflammation of the mucous membrane of the ileum."

It cannot be said that a case like this, in which the foundations of life were so thoroughly undermined that the body was already leaning towards the grave, could be a fair one to test the conservative properties of the amyl nitrite.

Additional testimony has, however, been furnished during 1877 in favor of the nitrite of amyl as an antidote to chloroform. A very interesting case, in which chloroform-poisoning was averted by this drug, was published in the *New York Medical Record* of August 4, 1877, and is probably familiar to many of the readers of the present article. It will not, therefore, be necessary to give it in detail, as it is easily accessible to any who may wish to read it. The closing sentences of the article, however, give in decided terms the opinion of the writer, and are as follows:

"In looking at the order of symptoms, I cannot help forming the opinion that had it not been for the nitrite of amyl, this poor patient would assuredly have died. I have never seen either in surgical or obstetrical practice any one in such imminent peril. I am thankful to say I have never witnessed a case of death from chloroform, but from the accounts published in the medical journals, both I and my friend inferred that in the present instance there was syncope arising from paralysis of the heart, and that this was met by the nitrite of amyl, which in accordance with its physiological effects gave a direct fillip to the arrested circulation."

Dr. Lewis S. Pilcher, in his report on "Croup and Tracheotomy in the City of Brooklyn," which was made to the Medical Society of the County of Kings, April 17, 1877, refers to two cases of tracheotomy "in which dangerous chloroform narcosis complicated the operation. Nitrite of amyl was used with apparent benefit in both instances."

These cases occurred in the practice of Drs. George R. Fowler and Frank W. Rockwell, and I extract from letters received from these gentlemen such portions as refer to the use of amyl nitrite, without unnecessary details of the cases. Dr. Fowler writes: "The case was one of diphtheria, the disease having invaded the larynx. I saw it only when suffocation was imminent, and the operation was done solely with a view to euthanasia. In the midst of the operation, and while the child was fully under the anæsthetic (about six drachms having been used), a sudden pallor came over the child's face, the chin dropped, the pupils became widely dilated, the pulse became imperceptible at the wrist, and efforts at respiration ceased.

"At this juncture I seized a bottle of the nitrite of amyl, which I had provided as a part of my outfit for the operation, and applied its open mouth directly to the child's nostrils, at the same time directing my assistant to keep up artificial respiration by Sylvester's method. The lips and face assumed the rosy hue of health, the pulse appeared at the wrist, and respiration became re-established. The operation was then safely completed."

Dr. Rockwell writes: "The case you see hardly

\* F. A. Reichardt, chemist of this city, has improved upon the glass capsules of amyl nitrite formerly in use, by making them thicker and less friable. Those first made were liable to break from mere elevation of temperature, but this defect has been rectified. By means of these the drug may be easily carried on the person.

bears upon the subject in hand, as it was not, properly speaking, one of *chloroform narcosis*, although the asphyxia may have been largely due to the presence of the anæsthetic in *addition* to the absence of oxygen.

"I have certainly seen amyl relieve impending asphyxia during the administration of chloroform, notably in a case of my own, where, while giving it freely in puerperal convulsions, the patient suddenly became cyanotic and ceased breathing. I believe the amyl in this case saved my patient's life."

The case which Dr. Rockwell does not consider as "properly speaking one of chloroform narcosis," was that of a boy, aged three years, suffering from diphtheria, upon whom it was considered necessary to perform tracheotomy. "As Dr. Bunker" (the attending physician) "was obliged to administer the chloroform, I had to rely upon the assistance of one of the nurses in the Institution, and owing to her insufficient aid the incision in the trachea was for a moment lost. Though almost instantly found and reopened, the child was suffering from complete asphyxia when the canula was introduced. Chloroform was at once suspended, and nitrite of amyl administered. Brandy T. xv. was given subcutaneously, and the child soon rallied."

I here subjoin a tabular record of these cases which have come to my knowledge, in which amyl nitrite has been used as a remedy for chloroform narcosis:

| Physician's Name.                                    | Symptoms of Attack.                                                                               | Anæsthetic used.                           | Amyl Nitrite.<br>How Administered.                                                                  | Nature of<br>Attack. | Result.                                                                           |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|
| R. H. Winton.                                        | Pallor, apnoea.                                                                                   | Squibb's chloro-<br>form.                  | gtt. v. to nose and<br>mouth.                                                                       | Syncope.             | Flushing of face, beating<br>of carotid recovery.                                 |
| C. Bader.                                            | Pallor, deep insensibility,<br>defective pulse and res-<br>piration.                              | Mixed<br>ether and chloro-<br>form.        | gtt. iij. over nose and<br>mouth, on lint.                                                          | Syncope.             | Flushed face, quick pulse,<br>returning sensibility.                              |
| C. Bader.                                            | Sudden faintness with<br>blue lips, blood turning<br>black, imperfect respi-<br>ration.           | Chloroform.                                | gtt. iij. inhalation.                                                                               | Asphyxia.            | Same result as preceding.                                                         |
| C. Bader.                                            | Stertor, blueness of face.                                                                        | Chloroform.                                | gtt. x. over mouth and<br>nose, on lint.                                                            | Asphyxia.            | Blueness gave way to<br>good color.                                               |
| C. R. Fowler.                                        | Sudden pallor, dropping<br>of chin, dilatation of<br>pupils, absence of pulse<br>and respiration. | Chloroform.                                | Applied open mouthed<br>bottle containing amyl<br>to child's nostrils. Art.<br>ificial respiration. | Syncope.             | Lips and face became<br>rosy, pulse returned,<br>respiration re-establish-<br>ed. |
| F. W. Rockwell.                                      | Cyanosis, apnoea.                                                                                 | Chloroform.                                | Details not given.                                                                                  | Asphyxia.            | Dr. considered that "the<br>amyl in this case saved<br>my patient's life."        |
| Case from British<br>Med. Journal,<br>Aug. 18, 1871. | Pulse stopped, gasped,<br>foam on lips, nausea,<br>jaw rigid.                                     | Duncan & Flock-<br>hart's chloro-<br>form. | Poured some nitrite of<br>amyl on lint and held<br>to nostrils.                                     | Syncope.             | Flushing of face, return<br>of pulse and respira-<br>tion.                        |

An additional case is referred to in the N. Y. Med. Record of May 25th, 1878, p. 430.

An analysis of these cases shows that not only is the nitrite of amyl to be used to avert the syncope induced by chloroform, but also the asphyxia. It seems somewhat strange, at the first glance, that the same remedy should be useful in such opposite condi- tions, but in both there is a tendency to stagnation in some portion of the vital current, and this is appar- ently overcome by means of that dilatation of the ves- sels which is caused by the drug.\* *The effect which it exerts of overcoming stasis* seems to be its most impor- tant function. While in the syncope induced by chloroform the nitrite of amyl exerts its antidotal properties by opening the arterial channels and admit- ting blood to the brain, in asphyxia the *pulmonary* stasis is also overcome and arterialization follows.

I have not given in this essay any details of experi- ments upon animals made with the view of demon- strating the antagonism between chloroform and the nitrite of amyl. These I have already given in medical publications. But I have brought forward a demonstration of such antagonism as shown in the effect of these drugs upon man, to which, of course, experiments upon the lower animals are but a stepping- stone. The practical bearing of this subject, it seems to me, cannot be questioned. It is the aim of medical effort to save life, and this end forestalls all others, and any agent which promises to rescue a human life from impending extinction is worthy of thorough and complete trial.

It is not enough to say that the best method of pre- venting deaths from chloroform is to discontinue its use. The same argument might be used with regard to alcoholic stimulants, yet, for the present, both will find their advocates. It is the part of the physician and philanthropist to reduce the dangers of both to the possible minimum. With our present knowledge of the antidotal properties of amyl nitrite in relation to chloroform, it is but justice to our patients to have it at hand when chloroform is administered. Not that it should be our sole reliance, but the evidence is too strong in its favor to admit of a doubt that we possess in its prompt and specific action a most valua- ble ally to our present remedies.

48 WEST SEVENTEENTH ST.

## A CASE OF SEPARATE INVESTMENT OF THE PALATO-GLOSSI MUSCLES.

By J. SOLIS COHEN, M.D.,

OF PHILADELPHIA.

MR. H., about 40 years of age, consulted me, Decem- ber 1, 1877, on account of a peculiarity in his voice, the evident result of overstrain. As he opened his mouth preparatory to a laryngoscopic inspection, I noticed the anomaly depicted in the above illustration, for the opportunity of presenting which I am under ob- ligations to the artistic skill of my friend, Dr. John H. Packard.

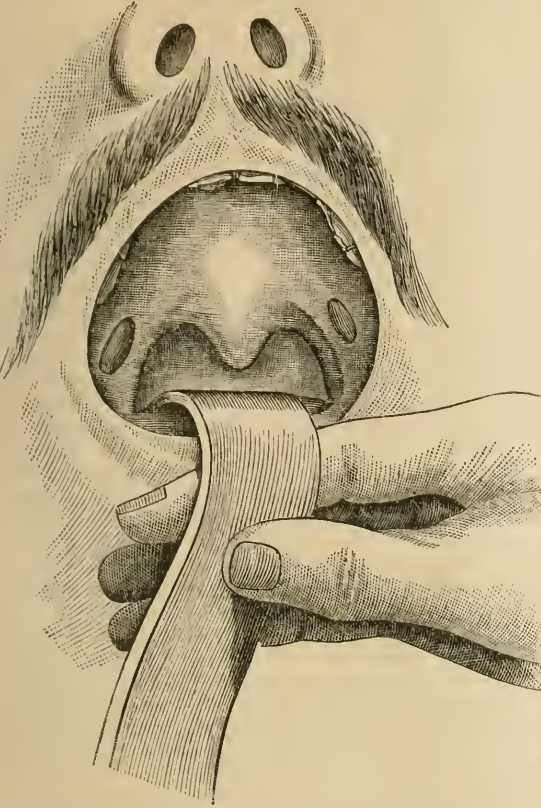
The anterior arches of the palate are incomplete upon each side, in consequence of an elongated oval aperture just above their lingual attachments, and which is large enough to disclose the anterior surface of the posterior arch behind. The inner and slender boundary of each abnormal opening is the main free portion of the palato-glossus muscle on each side re- spectively, the investment of the muscle being separa- te, instead of forming part of a continuous palatine

\* Berliner klin. Wochenschrift, Nos. 25 and 26, 1874.

† British Medical Journal, J. n. 1. 1876, p. 19.



fold, as in the normal subject. The entire palate, the tonsils, and the pharynx are free from disease; and the peculiarity of phonation under which the patient



labors is in no wise dependant upon the anomalous conformation of his palate.

Were it not for the position of these openings, they might have been readily mistaken, at first sight, for ulcerative perforations, the result of specific processes.

The only other recorded case of the kind, of which I am aware, is one reported by Dr. Wolters, of Göttingen (Hensle and Pfeuffer's *Zeitschrift für rationelle Medicin*, 1859, 3d series, 7th vol., p. 156, illustrated on plate IV.), for a knowledge of which I am indebted to Prof. Harrison Allen, whose attention I had drawn to the present case.

## PARACENTESIS OF THE PERICARDIUM AND THORAX.

By F. PEYRE PORCHER, M.D.,

ASSOCIATE PHYSICIAN CITY HOSPITAL, CHARLESTON, AND PROFESSOR OF CLINICAL MEDICINE AND MATERIA MEDICA AND THERAPEUTICS, IN MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA.

CYRUS WILSON, æt. 50, was admitted into the City Hospital, Charleston, under my care, May 1, 1878, with anasarca. He had been an inmate five years previously, but left without being relieved of his dropsy.

*Symptoms:* Very weak; compelled to sit propped up in bed; little appetite; respiration difficult, quick and short, pulse 104, weak, quick, oppressed—not being felt in left arm on account of swelling; face and right arm not much swollen; œdema of lower extremities; complete dulness with very slight and

deep-seated respiratory sounds over right lung anteriorly and posteriorly—dulness in front extending to an inch above the nipple—some dulness and diminished respiration at back of left lung also. Liver, as is usual in such cases, torpid, tender to touch, and slightly enlarged. Urine examined—no albumen.

*Treatment:* Nourishing food, stimulants, with calomel, squills, digitalis, and ipecac.

May 6th.—In such a condition, with the area of precordial dulness over four inches in diameter and reaching above the left nipple, with the sounds of the heart masked and feeble, feeling certain that no hypertrophy existed, I determined to use paracentesis for his relief. The trocar of the hypodermic syringe was entered into the centre of the area of dulness near the fifth rib, inside of the nipple, and about two inches from the border of the sternum. A drachm of sero-sanguinolent fluid was withdrawn from the pericardium, which coagulated under heat and nitric acid.

This afforded immediate relief; the respiration became less frequent and the pulse slower, as testified to by those present, Drs. Rose and DeSaussure, and Messrs. Rhett and Edwards, two of these gentlemen being the house physicians.

On May 7th, respiration and general condition improved; pulse 100.

In order to test the value and at least the innocuousness of the procedure used, I allowed the patient to remain undisturbed till the 14th, when I found the pulse 96, and I determined to remove the fluid from the right pleural cavity, using the hypodermic syringe to assure myself of its presence. The long trocar of Potain's (?) aspirator was then passed into the cavity of the thorax, at a point three inches below the lower border of the scapula, and two inches to the right of the vertebral column. Three pints and three ounces of a red sero-sanguinolent fluid were withdrawn. Pulse at end of operation, 86; respiration, 28.

June 6th.—The breathing becoming oppressed, and there being a reaccumulation of fluid in the pleural cavity, twenty six ounces of fluid were withdrawn by the aspirator, which was of a lighter color and thinner in consistence, with marked relief of all the symptoms. Time will be required to show what will be the permanent results.

Having had occasion several times to perform paracentesis thoracis with the aspirator, I have been in the habit of first using the hypodermic syringe as an exploring instrument to satisfy myself of the presence of fluid. I think this is especially needed where an attempt is made to enter the pericardial sac, more particularly in doubtful cases.

By the simple expedient which I have adopted of entering the fine hypodermic trocar beneath the skin, then creating a vacuum by lifting the piston as the needle passes deeper in, we are enabled to make sure, by the appearance of fluid in the body of the syringe (assuming our diagnosis to be correct), that the point has not entered the lung or the heart itself.

This expedient, which also suggested itself to my assistant, Dr. A. B. Rose, diminishes greatly the risk of this operation.

AWKWARD.—Said a juvenile daughter of a doctor to her father at the dinner-table the other day, when a well-known druggist and apothecary, Mr. X., was unfortunately present: "Papa! are there *medicine-stores*, where you buy your medicines?"

"Yes, my dear, I buy them of the apothecaries."

"Why, papa! I thought apothecaries sold postage stamps and soda-water, and such things, just as Mr. X. does."

## Reports of Hospitals.

### NEW YORK STATE WOMAN'S HOSPITAL.

#### SERVICE OF DR. FORDYCE BARKER.

THE following notes are given as illustrating the ordinary run of cases in Dr. Barker's service at the Hospital:

**CASE I.**—*Retroflexion, with Hypertrophy of the Uterus. Probable Periostitis of Sacrum and Coccyg.*—Hannah D—, aged twenty-nine years, is married, but has never been pregnant. Was admitted March 13, 1878, when the following history was obtained:

She began to menstruate when sixteen years old, and has always been regular, though suffering somewhat from dysmenorrhœa. The flow lasts five days. Her bowels are occasionally constipated, but usually are in good condition. She complains of considerable pain in the lumbar and sacral regions, and also, in part, in the hypogastric region. On a physical examination, it was found that the uterus was retroflexed, and that its cavity measured three and a half inches. An Emmet pessary was put in position after the uterus had been restored, and the patient placed on an appropriate tonic and generally-supporting treatment.

On April 1st, the uterus was found to be still in good condition, but the patient still continued to suffer a good deal of pain. From the marked tenderness along the sacrum, Dr. Barker was inclined to think that there was periosteal trouble, though this could not be determined with positiveness. There was a decidedly œdematous condition about the posterior wall of the vagina, and with a view to affecting the probable periostitis, repeated applications of strong tincture of iodine were ordered over its whole surface.

On April 22d the uterus was still in good position, although the pessary had then been removed, and the pain was very much relieved.

She missed one period in April, but the menses returned at the regular time in May, though the flow was not very free, and she complained of a good deal of pain in the back. About this time she was examined again by Dr. Barker, and he came to the conclusion that the external os was too narrow to allow a sufficiently prompt exit for the menstrual blood, and advised that it should be enlarged by incision.

May 24th, the patient was found to be free from pain, and greatly improved in every respect. She stated that she felt much stronger, and that she had gained over four pounds since her admission to the hospital. There was still a slightly loggy feel of the tissues behind the cervix, due, no doubt, to the œdema left after the recent menstrual period. This œdema was apparently caused by the fulness of the uterus at this time. On this day Dr. A. A. Smith, assistant surgeon, made a lateral incision with the uterotomy on each side of the *os externum*, afterwards plugging the latter with styptic cotton, and the patient was to be discharged as soon as the parts had healed.

**CASE II.**—*Old Pelvic Cellulitis and Proctitis: Left Lateral Version.*—Mary S—, thirty-five years old, and married. Has had one child, but no abortions. Admitted to the Hospital, Dec. 25, 1877.

She began to menstruate at the age of fifteen, and has always been regular. The menstrual flow ordinarily lasts three days when she lies in bed, and seven days if she is up and engaged in her usual avoca-

tions. The amount is moderate, and it is both preceded and accompanied by a great deal of pain. She was well up to the time of her confinement, which occurred eight years ago, and has never fully recovered her health since then.

An examination showed that the roof of the vagina was very hard and smooth, instead of yielding, and characterized by rugæ, as is the case in the normal condition. There was evidently old pelvic peritonitis and also pelvic cellulitis, which affected the left side principally. In consequence of this, it was found that the uterus was flexed towards the left side, and was in a state of rather firm fixation. Soon after her admission, the application of tincture of iodine all around the cervix, and especially to the roof of the vagina, was commenced, and has been pretty steadily kept up, at intervals of two or three days ever since. At times she complained of pain in both the iliac fossæ, and for a while the constant current was applied over the ovaries and to the cavity of the uterus, though this was not continued for a very long time. Appropriate tonics were given, as the case demanded, and the patient was placed under the best hygienic conditions.

May 24th. Her condition has been very much improved since she entered the hospital, and the uterus is found to be much more freely movable. But, at the same time, she has in the meanwhile had several little attacks of new inflammatory trouble, though these have been of a mild character. When they have occurred, the local iodine treatment has been suspended for the time being. To-day it was noticed that manipulation gave the patient very little pain, while formerly the parts were exceedingly sensitive when any sort of an examination was attempted. The application of tincture of iodine was made to the roof of the vagina and around the cervix, as usual.

**CASE III.**—*Retroversion (first degree); Endometritis, and Granular Vaginitis; Anal Fissure and Hemorrhoids.*—Laura F—, twenty-seven years of age, and single. Was admitted November 14, 1877. She began to menstruate when fourteen years of age, and has always been regular. She has suffered for a long time from dysmenorrhœa, the pain coming on about three days before the flow, and continuing for two days during the latter. For the last five years she has had a great deal of pain in the region of the left ovary, and also a very profuse leucorrhœa. There was found to be endometritis and chronic granular vaginitis, with fissure of the anus and hemorrhoids. In addition to constitutional treatment, impure carbolic acid was applied to the endometrium, a solution of nitrate of silver (forty grains to the ounce) to the vagina, and iodoform to the anal fissure.

About December 1st the endometritis and vaginitis had almost entirely disappeared, although she suffered more intensely than usual at a menstrual period occurring near that time; but towards the end of the month, when the applications were suspended, they both returned and became as troublesome as ever. The treatment was then resumed (iodine being now substituted for the nitrate of silver), and was followed by the same good results as before. In January she complained of great pain in the rectum and the back generally, and suppositories containing five grains of iodoform, one grain of hyoscyamus, and half a grain of belladonna, were ordered. The patient was discharged the first of February considerably improved.

She was admitted again on the 26th of April, and then, with the concurrence of Dr. Barker, Dr. Smith ligated her hemorrhoids. By the 6th of May the ligatures had all come away, and the patient was do-



ing well. The most troublesome features about this case was the vaginitis, which would disappear temporarily under the use of tincture of iodine painted over the entire surface of the vagina, but returned with the same severity after the applications had been discontinued.

CASE IV.—*Old Laceration of the Cervix, with Hypertrophy, Eversion, and Cystic Degeneration of the Injured Parts.*—Eugenia T—, twenty-five years of age; admitted May 9, 1878. She has been married seven years, and has had one child a year after her marriage. Has had none since, and no miscarriages. She always enjoyed good health up to the birth of the child; but since then has suffered continually from pain in the back, and also in the side when making any unusual exertion. Her menses return every two or three weeks; the flow lasting four or five days each time, and being quite free. There is considerable dysmenorrhœa, the pain being worse during the first two days of the menstrual period; and she has leucorrhœa of long standing. The act of walking is always painful to her. Bowels constipated.

A physical examination revealed the above state of affairs.

Dr. Barker expressed the opinion that an operation upon the lacerated cervix was the only thing that would relieve the patient's symptoms, and Dr. Smith proposes to operate as soon as he has prepared the parts by frequent hot-water injections, and puncturing the little cysts upon the surfaces of the laceration, as well as improved the woman's general condition by appropriate hygienic and tonic treatment. All this is in strict accordance with the views and practice of Dr. Emmet, who lays great stress upon the preliminary treatment in these cases, and thinks it almost impossible to obtain a satisfactory result unless this important matter is carefully attended to.

## Progress of Medical Science.

THE SURGICAL TREATMENT OF INTESTINAL OBSTRUCTION.—Dr. Thomas Bryant, of Guy's Hospital, in recording two recent operations of his own, states that no cases call for more thought and judgment than those of intestinal obstruction, the difficulty of diagnosis as to the cause being sometimes great, so that the question of operative interference has often to be based upon uncertain grounds. In reference to a diagnosis of the cause, and from a clinical point of view, he divides these cases into *acute* and *chronic*, the acute including strangulation of a portion of the bowel from internal hernia, omental, mesenteric, peritoneal, or fetal bands, or twists of the intestine (volvulus). The *chronic* arise from inflammatory or cancerous strictures of the small or large intestine; the occlusion of the bowel from the mechanical pressure of tumors; adhesions of the intestines from chronic inflammatory peritoneal changes; and last, but not least, the impaction of feces. Intussusceptions belong to both divisions, because when *strangulated* they may give rise to acute and when *incarcerated* to chronic symptoms, although the symptoms in their onset are always sudden. Perityphilitis and acute peritonitis, due to perforation of the bowel, may also simulate the acute form. Diagnosis should in all cases be based upon the principle of exclusion.

As to the comparative frequency of these different forms, the post-mortem records of Guy's Hospital

show 124 deaths ascribed to them. Of these, 33 were the result of acute internal strangulation from bands, twists, and internal hernia; 76 from chronic obstruction, and 15 from intussusception. Out of the 76 chronic cases, 3 were due to the impaction of feces; 3 to the mechanical obstruction caused by tumors; 23 to the matting together of the intestinal coils from inflammatory or cancerous disease of the peritoneum or mesentery; and 47 to stricture of the intestine—15 large and 2 small. Of the 45 cases of stricture of the large intestine, the seat of the disease was in the rectum and sigmoid flexure in three-fourths, and in the transverse colon in the majority of the remainder, it being exceptional to meet with stricture in the cæcum or ascending colon. The symptoms of *acute strangulation of the bowel* are sudden and definite onset of the illness, severe paroxysmal central pain, attended by sickness or more or less collapse, constipation, inability to pass wind downwards, and hiccough occasionally; also scanty urine, or even its suppression, and visible coils of distended bowels. There will be no abdominal tumor, tenesmus, or hemorrhage from the bowels. Even with these symptoms, it will be difficult to diagnosticate the exact cause of the strangulation, whether from internal hernia, twist of the bowel, or strangulation by a lymph-band stretching across the gut.

The chances of cure by natural means are very slight, and probably are about equal to those of ordinary strangulated hernia when left to itself, for these do occasionally free themselves when left alone. Since the operation of ovariectomy has shown that the exposure of the healthy bowel is not of itself a fatal measure, there is good reason to suppose that in the cases analyzed a good proportion might have been saved by a timely operation. Dr. Fagge, in Guy's Hospital Reports for 1868, says, "that there might, in many of the cases he analyzed, have been no little difficulty in finding a band among the distended coils, but I regard the facts derivable from our post-mortem records as indicating no insurmountable obstacles to the success of an exploratory operation in the great majority of the cases of true internal strangulations which are to be found in these records." Dr. Brinton, in his analysis of 600 cases, points to the same conclusion. The operation should not, however, be adopted as a *dernier ressort*, any more than herniotomy, but should be performed as early in the case as the diagnosis will justify.

In *chronic intestinal obstruction*, the clinical history is very different from the acute. It will usually be found that there has been for some time abdominal pain of some kind; some difficulty in obtaining a movement of the bowels; or in the act of defecation some discharge, probably of glairy mucus, of pus or of blood, separately or combined, at uncertain intervals; and finally, some change in the form and character of the stools, the motions at one time being liquid and loose, at another hard and marble-like, while at intervals they are pipe or tape-like. But acute symptoms may be grafted on to chronic ones, so that in addition we may have abdominal tympanitic distension, and probably pain; possibly visible peristalsis, nausea, vomiting, hiccough, and horborygmus. We then safely come to the conclusion that the case is one of chronic obstruction; that it is either stricture of the colon or rectum; the mechanical pressure of a pelvic or abdominal tumor, hydatid, ovarian, or cancerous; the matting together of the intestinal coils, from old and chronic inflammation of the peritoneum or mesentery, or from cancerous disease; or last, but not least, fecal accumulations. There are other causes, such

as adhesion between the bowel and a hernial sac, or some part of the abdominal parietes, etc., but they are rare. The results are necessarily fatal, through peritonitis or exhaustion, if the obstruction is not overcome.

Diagnosis of these chronic cases is not an easy one; if in the rectum, it can easily be found out; if in the sigmoid flexure, Simon's method may answer. When there is a tumor to the left of the umbilicus, there is probability that the disease is in the colon, but beyond these guides little can be determined even by the passage of long tubes, by palpation, percussion, or injecting fluid into the colon.

Fortunately pathological knowledge gives a series of facts upon which the surgeon may rely with confidence. Statistics show that there are four classes: 1. Where there is fecal impaction; 2. Mechanical pressure of tumors; 3. Contractures; 4. Strictures. The two first classes are comparatively infrequent. Contraction is the cause of obstruction in the small intestines, stricture of the large, and it is the most common affection of the four. The clinical history of the two classes of cases differ. In the former the symptoms are attacks of griping, colicky, abdominal pain, irregular and incomplete intestinal evacuations and the painless discharge of healthy motions. In the latter there is mostly an absence of abdominal pain beyond that due to distention, more or less complete constipation alternating with looseness of bowels, the occasional or frequent mixture of mucus or blood and painful defecation. In "contraction," when sickness exists, it will be passing and lasting only during the attack of colicky pain. In "stricture" it will occur only towards the close of the disease, when the obstruction is more complete. In "contraction" the abdomen probably will not be much distended, and only during the attack. The distention, moreover, will be central and hypogastric. In "stricture" the abdomen will to a certainty be distended, and the distention will be lumbar and epigastric. Large coils of bowel will also be visible, with peristaltic movements, the visible peristalsis in both cases being due to the chronicity of the affection, and consequently the hypertrophy of the bowel from overwork.

Now, as for the location of the seat of trouble. If the symptoms have pointed to disease of the large intestine, we know by statistics (104 cases from Guy's and Middlesex in which the disease was in the sigmoid flexure or rectum in 78, in the colon or its flexures in 19, and about the caecum in 7) that three-fourths of the cases are below that point of the bowel which would be opened by left lumbar colotomy, which operation is the one which should usually be done. Right colotomy is applicable when the exact position of the stricture cannot be made out.

As for contraction, much may be done by judicious medical means, by laxatives, those of an oily kind being the best. When these means fail, "enterotomy" should be done. It consists in opening the small intestines in the right or left iliac fossa, and so establishing an artificial anus.

It is also applicable in all other cases of obstructions, chronic or acute, where the weight of evidence in the former suggests the probability that the stricture or obstruction is above the ascending colon, and in the latter where the operation of laparotomy is set aside.—*The Lancet*, May 11-18, 1878.

**TREATMENT OF GASTRALGIA BY THE STOMACH-DOUCHE.**—Dr. Malbranc reports a case of obstinate gastralgia, that was treated successfully in Prof. Kussmaul's clinic in Strasburg, by the stomach-

douche, combined with the faradic current. The patient, a woman *ætat* 22, had suffered for four months from severe dyspepsia, and for nearly three months from intense gastralgic attacks, which could only be controlled by morphine. When admitted to the hospital, she was greatly emaciated, and so weak that she was scarcely able to stand. Three or four subcutaneous injections of morphia had to be given daily, in order to control the pain. Various methods of treatment were tried without result, until finally the stomach-pump was resorted to, under the use of which the patient began to improve. The œsophageal catheter was introduced early every morning, and the stomach washed out with warm carbonic acid water; at first, a little over half a pint of the water was used daily, but after a short time, from two to three quarts were used at a sitting, the stomach being filled and emptied several times. The water that flowed from the stomach after the first operation was almost clear, and only slightly acid, and contained a few masses of fresh mucus. After three weeks of the treatment, the patient could eat a varied diet, and was able to go about in the open air. Every time the bowels moved, however, which was only when a clyster was administered, the gastralgic pains again became severe, and morphia had to be administered. To relieve this constipation, Prof. Kussmaul then resorted to electricity. A catheter was armed with a wire, so as to form an electrode, which was introduced into the stomach every morning a few hours after breakfast, and a strong induction-current was made to pass for five minutes through the half-filled stomach and the abdominal walls. The other electrode was moved about so that all the abdominal muscles were exercised in turn. On the day the faradization was begun, the patient had an almost painless passage, and every morning afterwards she had a spontaneous, natural, and painless passage, soon after rising. After four weeks of treatment by the douche, and one week by electricity, she was discharged cured.

The positive diagnosis in this case could not be made, but the gastralgia was at all events the most prominent symptom. As the stomach contained but little mucus, and there was also but little flatulence and acidity, the favorable action of the douche must be ascribed solely to the quieting local action of the warm water and of the carbonic acid gas it contained. The influence of the faradic current, transmitted from the inner surface of the stomach through the intestines, was also in this case most striking. Prof. Kussmaul has repeatedly cured or relieved severe hyperæsthesias and cardialgias, particularly those left after the cicatrization of gastric ulcers, by the stomach-douche used in the morning while the stomach is empty.—*Berl. klin. Wochenschr.*, Jan. 28, 1878.

**BLEPHAROSPASM ENDING IN RECOVERY.**—At the meeting of the *Harveian Society* of London, on May 2d, Dr. Buzzard related a case of this rather rare affection, in a man aged fifty. It commenced by the eyelids closing spasmodically every few seconds. The patient was in excellent health in other respects. When talking or eating the spasm was worse. Pressure on the tragus of the ear checked the spasm. Some wax was found in the ear and removed, after which the constant current was applied. The spasm ceased during the time the current was applied, and the permanent condition was improved after each application. A blister was also applied behind the ear. The case got quite well.—*The British Med. Jour.*, May 18th.



# THE MEDICAL RECORD:

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## LEGAL REGULATIONS FOR THE PRACTICE OF MEDICINE.

### IV.

WE have seen that from 1806 to 1830 the practice of medicine was comparatively well regulated, for the unauthorized practice of physic and surgery was then a misdemeanor, punishable by fine or imprisonment, or both; and of course the culprits were not allowed to collect their charges. Some time before 1830, lobelia and other dangerous vegetable remedies were made the subject of extravagant eulogy by a notorious charlatan and his sectaries, and held up as panaceas, which were employed with blind rashness in almost all complaints. Lobelia is among the remedies which were employed by the aborigines of this country, and was long in the hands of empirics before it was introduced into regular practice by Dr. Cutler, of Massachusetts.

The legislature was petitioned to put some restraint on this practice, and the consequence was that in 1830 the Thompsonians succeeded in passing a section exempting all prescribers from penalties who merely used or applied for the use of sick persons any roots, herbs, or barks, however poisonous, the growth or produce of the United States. All other so-called doctors not authorized by law were fined twenty-five dollars, if convicted, for each act of physic or surgery.

This legalization of Thompsonian quackery was soon found to work so much injury, that in 1834 only those who used herbs, roots, or barks, without fee or reward, were exempt from fines.

Ten years after, the homœopathic delusion gained such headway among the demagogues of the State, that all persons were allowed to practise and collect fees, unless convicted of malpractice, gross ignorance, or immoral conduct, when they were subjected to a fine of not less than fifty, nor more than one thousand

dollars, or imprisonment for not less than one month nor more than twelve months, or both, at the discretion of the court.

There was no longer any necessity for a license or diploma, and the Act failed completely to define what degree of ignorance constituted grossness. The law merely declared it a misdemeanor for any person, while in a state of intoxication, to administer any drug or poison by which the life of the patient was endangered; and if death ensued, the prescriber was liable for manslaughter in the third degree, *i. e.*, imprisonment for not less than two, nor more than four years.

Such were the consequences, which lasted for thirty years, or up to 1874, of fruitless and unwise attempts to repress Thompsonianism and homœopathy. In 1844, a Dr. Paine, who had been some time in practice in the county of Orange, had offered, by public advertisement, to heal his patients either on the allopathic or homœopathic system, as they should wish, and had actually practised on the latter system. Notice was served upon him, requiring him to apply for and receive, if worthy, a certificate of admission as a member of the Medical Society of the County of Orange.

The Society rejected him, and attempted to suspend him from the practice of medicine and disqualify him forever after.

Judge Cowan decided the case against Dr. Paine, when the homœopaths applied to the legislature, and, with the aid of the late Judge Scott, overthrew almost all the former laws about the proper practice of medicine; thus for thirty years entailing almost untold injury to the public at large, which became the prey of numberless quacks and scoundrels of all degrees, and also striking a heavy blow at medical science and professional standing everywhere.

If the Medical Society of the County of Orange had dealt wisely and quietly with its one homœopath—even met him in consultation in cases of need, he would doubtless have been obliged to resort to the skill and science of regular medicine so frequently that the infinitesimal system would never have made much headway, and would not have enlisted all demagogic lovers of so-called toleration and fair play on its side.

In 1846 and 1847 the American Medical Association and the New York Academy of Medicine committed the same great mistake, which they have persisted in up to the present time.

The questions naturally arise, if the medical societies had dealt in a more worldly wise and politic way with the Thompsonians and homœopaths, whether less evils would not have ensued. As it was, the State and county medical societies were greatly crippled by law, and unfortunately both they and the profession at large added greatly to the mischief. It is true they preserved their organizations after a feeble fashion, but seemed to forget that they still had ex-

tensive powers which might be wisely used. Many influential members neglected to join their county medical societies merely because the legal penalties for not so doing were removed. The law remained, and men of high public spirit should have obeyed it, penalty or no penalty. In fact, they should have redoubled their efforts to fill up their ranks and increase their influence.

It is true that the position was a rather peculiar and difficult one, viz., that of restraining the Brobdingnagian grossness of Thompsonianism on the one hand, and the Lilliputian absurdities of homœopaths on the other. Numbers, science, and abstract reason, without the aid of broad common-sense and prudence, were and still seem destined to fail for a long time.

In 1846 and 1847 the American Medical Association and the New York Academy of Medicine perpetrated these errors of policy.

It is true that, in 1833, the medical societies of the State and counties of New York had declared that the medical profession should be exercised with fidelity to its scientific principles and approved doctrines, and that a departure from these constituted quackery. But in old times every homœopathic physician had been educated in the regular way, and almost all of them fell back, as they now do, upon approved methods in every great emergency, and some of them could have been led back into the regular ranks.

It is a wise saying that "all prejudices, however inveterate and apparently unreasonable, have, in some obscure way, an honest origin, and are most generally just inferences from narrow premises, which pride, passion, or interest prevent their adherents from at once acknowledging; and when ignorance comes in aid of any or all of these causes, it opens a wider scope to their influence."

All epidemics in the moral and scientific worlds must have a certain course or run, and require the wisest and most Christian or politic treatment. If prejudice is met with prejudice, passion with passion, pride with pride, and class interest by class interest, an endless war ensues, during which the public and the profession suffer.

It is not right to regard every one who differs from us in law, politics, religion, and medicine, as wholly a scoundrel. There were always in the homœopathic, and even in the eclectic ranks, men with a reasonable amount of knowledge of medicine, and of passable morality, who were honestly but blindly pursuing what they conceived to be new and useful light. The wonders of magnetism and electricity had excited a belief in the marvellous, and many have a pitiful but honest craving after miracles and marvels. Medicine was more imperfect forty years ago than now, and part of the usual practice with antimony, mercury, and bloodletting was as injudicious and perhaps as terrible, both in seeming and in results, as Thomp-

sonianism. Expectancy was considered preferable to heroic treatment by some of the most astute physicians, and homœopathy seemed to some a medium between doing too much and nothing at all. It was a very seductive and delusive system to many poetic and imaginative souls, and it finally threw great light upon the natural history of disease, which no one but enthusiasts would have dared to seek.

The best educated, most honest, and practical of the homœopaths would, perhaps, long ago have been in the regular ranks, if treated wisely and tolerantly. In the first burst of their enthusiasm, they, like Dr. Paine, spoke disrespectfully of the medical profession, and published severe and even slanderous newspaper and other articles against it. The larger mass of medical men thought they could easily crush a small band of unreasonable and unreasoning enthusiasts. But as long as the regular profession could not cure all diseases certainly, quickly, and pleasantly, a large number of the laity sided with those who believed they could and promised they would; and others saw no great choice in being severely vomited by tartar emetic or lobelia.

It is also true that the regular profession of this city devoted itself most earnestly to the study and diagnosis of disease, and founded the Pathological Society in 1844, while the exclusives, viz., the eclectics and homœopaths turned their whole attention to deluding themselves and the public that they had made and were constantly making the most wonderful advances in the treatment of all diseases, especially incurable ones.

The studies of the regular profession seemed to carry it away from the sympathy of the public, while those of irregulars appealed directly to it. Of course, the one became unpopular, while the others grew in public admiration.

This continued until the great discoveries by aid of the microscope, ophthalmoscope, laryngoscope, stethoscope, etc., etc., carried the regular profession so far in advance that specialties in medicine had to be established, followed by specialties in therapeutics, leading to the grand discoveries of the bromides, chloral, carbolic acid, nitrite of amyl, salicylic acid, the hypodermic syringe, and hosts of remedies for formidable diseases, which paled all the petty appliances of the homœopaths and eclectics, and commenced to convince the public and most of the irregulars that the regular profession was more than their peer, both in the study and cure of disease. Finally, the imperfect law of 1874 became the entering wedge for restoring the regular profession to its lost rights and influence.

The majority of the homœopaths use the new discoveries of the regular school more than they do their old remedies; the so-called new school of homœopaths has become the old school of medicine, and the Thompsonians and eclectics were always in their



doses and remedies merely an ill-cultivated branch of regular medicine.

#### • RURAL HYGIENE.

THE present season naturally suggests the feasibility of a temporary absence from the city and its possible advantages. Although the practice of ruralizing is becoming more and more extensive, the evils which have become associated with it have been proportionally magnified. In consequence of the demand for country board, a large number of farmers have thrown open their doors for customers, and vie with the country hotel-keepers in the general unsanitary condition of their premises. Even in the so-called model farm-houses, the first-class country hotels, and in the larger establishments of the more fashionable resorts, we often find the foul and reeking privy vaults in close proximity to a well; the rooms, if not small and close, at least unventilated; while the dietary is stamped with the most objectionable features of boarding-house management. Under the circumstances, except for the out-door life which the season invites, many of the guests would suffer from serious attacks of illness. The religious camp-grounds, in many instances, need much more sanitary supervision to make their continued occupation from year to year free from danger.

All these are certainly drawbacks; but there is no doubt that the benefits of ruralizing are sufficient to warrant every hard-worked, nervous, overstrained Metropolitan in being temporarily absent from his home—free for a time from business cares, and free to enjoy a change of scene and condition, which, at this season of the year particularly, he so much demands.

#### COUNTER PRESCRIBING.

FROM all accounts it would appear that the practice of counter-prescribing by druggists is on the increase, especially in the southern and eastern part of the city. Would it not be well, in the coming fall, for a committee of the County Society to investigate the matter and suggest a remedy? If these counter-leeches still persist in defying ordinary decency, they may only hasten the time when physicians will keep their own medicines.

#### THE MEDICAL SOCIETIES.

THE different medical societies in the city, and, indeed, throughout the country, have suspended their meetings until the fall months. This circumstance will afford us an opportunity for inserting during the summer many very interesting and valuable reports, which, in consequence of the pressure upon our columns, has been deferred. Many original communications, review articles, and hospital reports have been in this category, and will appear as the opportunity presents itself.

## Reviews and Notices of Books.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by DR. H. VON ZIEMSEN. Vol. xiv. *Diseases of the Nervous System and Disturbances of Speech.* By Prof. A. EULENBURG, Prof. H. NOTHLAG, Prof. H. VON ZIEMSEN, Prof. H. JOLLY, Prof. A. KUSSMAUL, and Dr. J. BAUER. Translated by E. Buchanan Baxter, M.D., and Alexander Morison, M.B., Edin., of London; David F. Lincoln, M.D., George B. Shattuck, M.D., Samuel G. Webber, M.D., of Boston; and J. Haven Emerson, M.D., and John A. McCreery, M.D., of New York. ALBERT H. BUCK, M.D., Editor of American Edition. New York: Wm. Wood & Co., 1877.

THERE is probably no class of diseases which the general practitioner meets in his daily routine to which he brings less positive knowledge and less definite ideas, and the care of which he therefore undertakes with less comfort to himself and less good to his patient, than diseases of the nervous system.

In large cities a certain number of such cases may be turned over to the care of specialists, or their counsel may be invoked by the physician in charge. But throughout the vastly greater portion of the land even this aid is not available, and whatever is done for the victim of neuralgia, chorea, or epilepsy, for the paralytic or the aphasic, must be undertaken by the general practitioner. It is with pleasure, therefore, that we note the amount of space in this Cyclopædia devoted to Diseases of the Nervous System. It is one of the greatest merits of a work like this that it not merely contains valuable treatises on the diseases we are most familiar with, like pneumonia and dysentery, but that it supplies its thousands of readers with equally exhaustive and practical papers on subjects with which they are but little familiar, and which are very briefly and unsatisfactorily handled in our general works on practice.

The volume now before us begins with an article on Vaso-Motor and Trophic Neuroses, from the pen of the well-known Prof. A. Eulenburg, of Greifswald. A few pages are first devoted to the subject of *Hemicrania*, with regard to the etiology and pathology of which the author confesses his ignorance in a way that is truly refreshing. When speaking of treatment he scouts the guarana humbug, finds quinia and ergotina of use sometimes, nitrite of amyl temporarily valuable, but dangerous, and attaches the greatest importance, both in treating the paroxysm and the intervals, to the constant galvanic current, for the employment of which he gives special directions. Let the numerous victims of migraine in the medical profession try it on their own aching heads, and they ought soon to accumulate abundant evidence for or against the remedy.

*Angina pectoris*, which next claims attention, is discussed in an able and instructive manner, being divided into the following types: 1. Excito-motor cardiac or cardio-centric, ganglionic angina pectoris, from direct lesion of the automatic excito-motor ganglia of the heart. 2. Regulator angina pectoris, from lesion of the cardiac nerves of arrest. 3. Excito-motor sympathetic angina pectoris. 4. Vaso-motor angina pectoris. The symptoms of these various forms are given, and the treatment, though confessedly unsatisfactory, at least makes an attempt at being rational.

After a brief discussion of unilateral progressive atrophy of the face—one of the curiosities in medicine—thirty pages are devoted to *Basedow's disease*, also called exophthalmic goitre. We regard it as a mistake in the translator or editor not to give this name as a

synonym in the text, nor allude to it in the index, inasmuch as, right or wrong, it is the name by which the disease is best known in America. The constant employment of the word "struma" for "goitre" is open to the same objection.

Prof. Eulenburg differs from von Graefe in not regarding the loss of power to move the lid in harmony with the eyeball, in looking up or down, as *pathognomonic* of Basedow's disease. Nothing new or definite is given on the pathology of the affection, while in the way of treatment the greatest good is claimed from galvanization of the sympathetic. Among the trophic neuroses, progressive muscular atrophy, pseudohypertrophy of the muscles, and true muscular hypertrophy each claim a section. In speaking of progressive muscular atrophy the author cautions against the "do-nothing" treatment, and claims that early cases are improved or arrested by the use of electricity and "medical gymnastics."

In a later portion of the book, Eulenburg again appears with chapters on catalepsy, tremor, and paralysis agitans, and a few words on Hammond's disease or athetosis.

Prof. H. Nothnagel, of Jena, occupies but a comparatively small space in an excellent discussion of the questions of *epilepsy* and *eclempsia*. He disagrees with Russell Reynolds in his rejection of "reflex epilepsy." The question as to the causes of epilepsy is divided into:

"1. What influences produce the epileptic change? and.

"2. What produce the outbreak of the symptoms?"

It is taken for granted that the change is brought about gradually, that it may depend on "lesions of a definite anatomical kind," or on "factors not appreciable anatomically," and again later (p. 210) we are told that "*epilepsy may be developed altogether spontaneously, without any inducing influences whatever at present known.*" But if anatomical changes are to be found, we are not left in doubt as to where to look for them. "The pons and medulla oblongata are the seat of epilepsy; if any anatomical changes exist they are to be sought for in these parts" (p. 262). And yet the author admits that "probably no uniform, constantly recurring histological change generally forms the basis of epilepsy." The entire discussion on the pathology of the disease will bear study.

In the treatment of epilepsy, Nothnagel puts more confidence in bromide of potassium than anything else, though by no means lauding it as infallible. He begins treatment with 75 grains (5 grammes) a day, and increases it to 10 or 15 or even 20 grammes (150 to 300 grains).

The section on *Tetanus* is contributed by Dr. J. Bauer, of Munich. It is rather more surgical in its character than most of the articles in the *Cyclopaedia*. The author does not believe in the inflammatory character of tetanus, nor does he altogether accept the theory of simple increased reflex irritability. Under the head of treatment he has a good deal to say about the treatment of the wound, and relies for the tranquillization of his patients upon chloral and bromide of potassium.

The subject of *Chorea* is handled by Dr. von Ziemssen himself in his usual interesting and instructive manner. The distinction is first clearly drawn between what should be included under this name and the so-called *Chorea magna sive Germanorum*, the dancing manias and simulated spasms formerly confounded therewith. Due credit is given to English observers as having furnished the most valuable contributions to the study of this subject. The cerebral

nature of chorea is maintained, though it is not claimed that the brain is the exclusive seat of anatomical change. The prognosis is declared to be generally good. The pages on treatment give quite a long list of remedies bearing some reputation in this line, among which arsenic seems to be most favorably noticed, while strychnia and bromide of potassium are declared to be useless.

Prof. F. Jolly, of Strasbourg, furnishes a thorough little treatise, covering one hundred pages, on *Hysteria*. He carefully goes over the whole ground of the relations of this affection—which he designates as a general functional neurosis—to various physical and psychical conditions. While, so far as we have observed, nothing new is advanced, the reader is furnished with a summary of what is at present known on this interesting subject.

But probably that portion of this volume most worthy of notice is the one which we shall be obliged to dispose of hurriedly in the limited space still left us. We refer to the three hundred pages occupied by Prof. A. Kussmaul, of Strasbourg, in a discussion of the *Disturbances of Speech*, which he himself modestly characterizes as "An Attempt in the Pathology of Speech." Notwithstanding the many uncertainties and obscurities in which this subject is involved, no thinking man can begin the perusal of these pages without being lured on from chapter to chapter by the fascination which belongs to this border-land between the material and what we have been wont to regard as the immaterial. The mere mention of some of the sub-headings of chapters will be sufficient to indicate the general range of the discussion: "Speech as a Movement of Expression and an Acquired Reflex; The Principle of Sound-Metaphor; Sensory or Instinctive in Contrast to Intelligent Judgment; The Three Stages of Language; The Centre of Speech; A Great Central Organic Mechanism; Speech and Consciousness; Sensory Channels of Language; The Localization of Speech; Aphasia; Word-Deafness; Word-Blindness; Syllable-Stumbling; Deaf-mutism, and the Education of Deaf-Mutes," etc., etc. Passing to and fro from the physical to the metaphysical, from physiology to psychology, Prof. Kussmaul interests his reader equally in the known and the unknown, and stimulates the keenest desire to penetrate still further into this mysterious realm of thought-mechanism and the philosophy of speech.

The subjects here discussed are too novel and unfamiliar to the general reader to be satisfactorily represented by a few quotations, or any attempt at a brief abstract of the same. We must, therefore, content ourselves with the above general reference to Prof. Kussmaul's admirable work, which, in our opinion, constitutes the great charm of this volume.

One thing which is quite noticeable in the later numbers of the *Cyclopaedia* is the increasing number of references to the other volumes, thus giving a unity in diversity to the work as a whole, and showing the high esteem in which it is held by the best thinkers in Germany.

POPULATION OF FRANCE.—According to the "Journal Officiel," the number of births in France during the year 1876, was 966,682, and the number of deaths 834,074, the excess of births over deaths being consequently 132,608. Of the children born in wedlock, 459,920 were males, and 439,456 females; of the illegitimate children 34,398 were males, and 32,908 were females. The number of still-births was 44,680. The number of marriages in the same year was 291,366.



## Reports of Societies.

### THE NEW YORK NEUROLOGICAL SOCIETY.

*Anniversary Meeting, May 6, 1878.*

THE meeting was called to order by Dr. E. C. SEGUIN, the retiring President, who gave a brief review of the work done by the Society during the year.

He then introduced Dr. J. C. SHAW, of Brooklyn, the President-elect, who thanked the Society for the honor it had conferred upon him in making him its presiding officer. In lieu of an inaugural address, he presented a contribution to the discussion of the paper for the evening, which was then read by Dr. E. C. SEGUIN, and entitled

#### A CONTRIBUTION TO THE PATHOLOGICAL ANATOMY OF SCLEROSIS OF THE POSTERIOR COLUMNS OF THE SPINAL CORD.

The essential symptoms in the case which was made the basis of the contribution were as follows:

A male patient, æt. 58 years, was first seen by Dr. Seguin, Dec. 7, 1876. At that time the following record was made: for four or five years he had had burning numbness in the feet and legs, and recently as high as the umbilicus. Within the last three months he had had the same sensation in the fingers of both hands. In the February following the same symptoms were present, with the addition of distinct constriction bands about the lower part of the abdomen.

Patient lost sight of.

He was seen again, October 14, 1877, when the leading symptoms were extreme anæmia and general debility. Diagnosis, agreed to by Dr. E. D. Hudson, Jr., pernicious anæmia. Numbness still present in legs and fingers. At that time, an attack of sharp pain, localized in the left heel, occurred, lasting several days. His daughter stated that he had similar pain in the left thigh, in the month of August. *Those were the only pains the patient had ever had. Repeated testing of co-ordination of hands and feet had failed to show any ataxia.* When first observed the patient could stand and walk with the eyes closed. At no time was there vesical paresis or spinal epilepsy, or atrophy of muscles, or anæsthesia. There were no symptoms in the head or the eyes. Death by asthema.

*Autopsy*, thirty-six hours after death, showed, besides a number of non-nervous lesions, slight opacity of the central arachnoid, an enormous accumulation of calcareous plates in the spinal arachnoid, over the posterior part of the cord, low down. The cord low down. The cord appeared normal to the naked eye. After immersion in bichromate of potash solution, the spinal cord showed to the naked eye well-marked sclerosis of the posterior columns. It was most marked in the upper lumbar enlargement, and extending to the uppermost part of the cord. It involved nearly the entire posterior median columns and more or less of the adjacent white matter. There existed, however, a band of normal white matter between the posterior horns and the sclerosed portion; consequently the distribution of the sclerosis was not strictly that of ascending degeneration or of the sclerosis of the columns of Burdach present, accord-

ing to Charcot, in the early stages of ataxia. It was a mixed type. The microscope showed the lesion to be sclerosis, and not secondary degeneration. The remainder of the cord was normal, with the exception of the part about the central canal, which showed a multiplication of nuclei, an enlargement of the peri-vascular spaces, and an obliteration of the central canal; probably peri-ependymal sclerosis.

THE PRESIDENT, Dr. Shaw, reported three cases in which there were almost no pains, yet well-marked ataxia was present in two cases at post-mortem, though sclerosis of the posterior columns existed. The third case was yet living. His patients were two males and one female, and aged respectively 43 (living), 36, and 62 years.

He was of the opinion that the electric-like pains were by no means uniformly present as an early symptom of locomotor ataxia.

Dr. HAMMOND doubted whether Dr. Seguin's case should be called one of locomotor ataxia. He thought that examination of the specimens with the low power showed that it was one in which there was simply sclerosis of the columns of Goll, and was like Pierret's case.

Dr. SEGUIN regarded it as a case in which the sclerosis involved more than the posterior median columns or the columns of Goll, and stated that examination with a higher magnifying power showed marked sclerosis in certain parts of the columns of Burdach. In that view he was sustained by Dr. Spitzka.

Dr. SPITZKA suggested that the peripheral numbness was due to causes of which at present we had but little knowledge, and in that opinion Dr. Seguin coincided.

Dr. HAMMOND referred to two cases which had lately come under his observation, in which the ataxic symptoms were well marked, yet in neither instance had the patients suffered from any pain whatever. He agreed with Dr. Shaw in the opinion that electric-like pains were not such early symptoms as had usually been supposed. He had come to regard inequality or marked contraction of the pupils as one of the earliest symptoms. In some cases the gastric symptoms were prominent very early, and might exist twelve or fourteen months before ataxia was developed.

Dr. McBRIDE referred to a case in which he had observed numbness of the fingers of both hands, violent pains of the sticking variety, inequality of the pupils, very slight anæsthesia, *absence* of the "knee phenomena," and yet there was no history of crises or ataxia. He further referred to observations made recently by Westphal, who maintained that the *absence* of the "knee phenomena" was a diagnostic point of great value. [The term knee phenomena relates to the following facts: "If the ligamentum patellæ be struck in a healthy man while the knee is flexed at a right angle, or nearly so, a sudden contraction of the extensor muscles on the front of the thigh may always be felt."]—*London Med. Record*, March 15, 1878.

The question of interest was whether the knee phenomena was not already present before the characteristic symptoms of posterior spinal sclerosis were developed; and also whether its absence might not, therefore, in some cases, afford material aid in forming an otherwise difficult or impossible diagnosis.

Discussion was continued at some length by Drs. Seguin, Shaw, McBride, Hammond, and Emerson.

The Society then adjourned.

## NEW YORK ACADEMY OF MEDICINE. SURGICAL SECTION.

*Stated Meeting, May 14, 1878.*

DR. STEPHEN SMITH, CHAIRMAN.

### PLASTIC APPARATUS IN TREATMENT OF FRACTURES.

Dr. S. B. ST. JOHN read a vigorous and exhaustive paper upon the above subject, in which he advocated the use of the plaster-of-Paris apparatus. The interest in the paper centred in the review and criticism offered upon the lecture given in Bellevue Hospital by Dr. Frank H. Hamilton upon the Treatment of Fractures of the Shaft of the Femur in the Adult, and published in *THE MEDICAL RECORD* for Dec. 1, 1877.

By the term "plastic" was meant any form of dressing, which, when first adjusted, was soft and yielding, and subsequently became firm and unyielding. Dr. St. John, however, confined his remarks to the plaster-of-Paris dressing, inasmuch as in the clinical lecture referred to it had been condemned without reservation.

### VALUE OF STATISTICS.

The value of statistics was first considered, and it was believed to be a fair and legitimate inference that such as came from large and well-regulated hospitals could be relied upon as a basis for scientific deductions. The qualification of, the competition among, and the honest emulation which stimulated the internes was regarded as a guaranty of the excellence and reliability of the clinical facts which they recorded and the statistics which they collated.

### DISLIKE FOR PLASTIC APPARATUS.

With reference to plastic dressings, they were disliked by three classes of surgeons:

1. Those who were fond of fussing and pottering, of tying and untying strings, of loosening and tightening straps, and of shifting pads and cushions.

2. Those who had invented splints to fulfil certain indications; and

3. Those who based their convictions, with reference to the value of any given plan of treatment, upon careful trial, accurately noted results, and a comparison of the results obtained with those derived by other methods in similar cases.

It was the latter class Dr. St. John hoped to reach.

### INDICATION FOR THE USE OF SPLINTS.

The indication in the use of splints in the treatment of fractures was, to hold the fragments of bone in position, and to accomplish that most successfully they should be equally fitted to the shape and contour of the limb.

### ADVANTAGES CLAIMED FOR THE PLASTIC APPARATUS.

The advantages claimed for the plastic apparatus were: 1. Little tendency to displacement of the splint; 2. Freedom to the patient to go about (in case of simple and uncomplicated fractures); 3. Less irritation, less pain, and less extravasation of blood; 4. Less liability to excoriation; and 5. Uniform compression.

In order to realize those advantages the gypsum splint must be judiciously applied. It was not difficult to apply a plaster-of-Paris splint so that it would present a very neat-looking appearance, but such a splint might be very far from a judicious dressing for the fracture. There were several conditions in which a limb might be placed that would decidedly contraindicate the use of any form of dressing which did not permit of its prompt inspection at any time. There were cases in which even the application of a simple

roller bandage was contraindicated, and most certainly such cases were not proper for the application of gypsum or any form of plastic splints.

### TEST OF VALUE FOR ANY APPARATUS IN THE TREATMENT OF FRACTURES.

It was believed that the test of value for any dressing applicable to the treatment of fractures, was its ability to prevent shortening or to reduce shortening, if it must occur, to the minimum degree.

### QUOTATION FROM THE CLINICAL LECTURE.

Dr. St. John then quoted from the clinical lecture to the effect that Dr. Hamilton had stated that the introduction of the plaster-of-Paris dressing was several steps backwards; that he had seen more shortening and crooked limbs since its adoption than ever before; that it afforded no means whatever for maintaining extension and counter-extension; that he had seen two or three deaths occasioned by its use; that he was happy to say it was almost abolished, and was sure that it would not be employed more than once or twice in country practice (see *MEDICAL RECORD*, 1877, p. 754).

Certainly no condemnation could be more complete, and Dr. St. John maintained that if those opinions were not endorsed by Dr. Hamilton's professional brethren, he (Dr. H.) had done the medical profession a great wrong.

If those opinions were coupled with a preceding sentence in the same lecture—"The fracture is so oblique, that unless the fragments are maintained in position by extension and counter-extension, they always (a general law) overlap each other"—a most promising text was presented to lawyers, from which they could prove that some of the most eminent surgeons in the world were ignoramuses and unworthy to be trusted in the application of their art.

### THE QUESTION FOR DISCUSSION.

The question for discussion was not whether the plaster splint was the best that could be employed, but whether it was, under any circumstances, a justifiable method of treatment.

### TEST OF VALUE FOR ANY SURGICAL PROCEDURE.

The test of value for any surgical procedure was: 1. Theoretical; 2. The endorsement it received by representative men; and 3. Comparative results, as shown by careful and accurate statistics.

With reference to fracture of the femur, one of the main elements in deciding as to the value of any method of treatment was its ability to prevent shortening, and upon that point Dr. St. John made the unqualified assertion that the plaster-of-Paris dressing could prevent shortening. When the fragments had been placed in proper position, the plaster could be so applied as to prevent any tendency to shortening. It was a passive apparatus when the muscles did not try to produce shortening, and became resistant only when the muscles became active.

### CONSIDERATION OF THEORETICAL OBJECTIONS.

The plaster-of-Paris splint had been objected to theoretically because when applied sufficiently tight to maintain extension, it became a source of constant irritation unless the greatest care and nicety was exercised in its application, and that such constant irritation was inevitably followed by damaging effects upon the perineal tissues. It had been maintained in the clinical lecture referred to, that if the plaster was put on so that extension was maintained, the pressure would cause ulceration, and the author of the lecture had referred to one case in which extensive ul-



ceration had occurred. [See MEDICAL RECORD for 1877, p. 754.]

CAN THE PLASTER APPARATUS BE APPLIED SO AS NOT TO PRODUCE IRRITATION AND YET BE EFFECTIVE?

Dr. St. John then asked the question, Was it possible to apply the plaster of-Paris splint so nicely that it would not be a source of irritation and yet be an effective dressing? The answer was in the affirmative, and in its support reference was made to 107 cases of fracture of the thigh treated in Bellevue Hospital with less than one-half inch shortening. If the splint had been able to give such results in so large a number of cases, and at the same time was liable to produce constant irritation, hence ulceration, there should have been more than a single case in which ulceration occurred.

In explanation of the single case of ulceration, which had been referred to in the clinical lecture, Dr. St. John remarked that the patient was a drivelling idiot, and his mental condition was such as to prevent him from making any complaint with reference to the splint.

Dr. St. John made special reference to the case in which the splint was applied under the influence of chloroform, and cited in the clinical lecture as an example of extreme shortening under the plaster treatment. [See MEDICAL RECORD for 1877, p. 753.]

In that case the age of the patient (83) was such as to render a perfect result only a secondary consideration. He believed that such cases as the latter should not be shown to students as a conspicuous example of the inability of the gypsum splint to maintain extension, nor should the form be presented as an illustration of the accidents specially liable to attend the use of the plaster-of-Paris apparatus.

Dr. St. John took issue with the view that the plaster splint, in order to be effectual, must make constant pressure upon the perineum. Practically it was not true that the splint made constant pressure upon that part. Theoretically, constant pressure was not necessary in order to keep the limb properly extended. In reality, pressure upon the perineum meant *intermittent muscular action*, and such intermittent pressure did not produce ulceration.

With reference to statistics, Dr. St. John protested against rejecting *all* statistics that were not tested by the collator or verified by his personal friends, for the value of statistics was directly related to the number of cases. For example, measurements might be made to the one-thirty-second of an inch in *five* cases, and be sworn to before a notary, and yet not be of much value; but measurements in *one hundred* cases, even with mistakes of one-fourth of an inch in a certain number, would go far towards establishing a principle. Unless, therefore, it could be shown that gross carelessness and dishonest statements had been incorporated, the measurements and statistics collated from a well-regulated hospital were valuable.

Reference was then made in detail to cases of fracture of the thigh that had been treated by the plaster apparatus in Bellevue, Roosevelt, St. Luke's, St. Francis', and other hospitals in this country and abroad, and he also referred to American, English, and German authorities in surgery, and reached the conclusion from the data thus obtained that the plaster-of-Paris apparatus was a valuable method of treatment, notwithstanding it had been so unreservedly condemned in the clinical lecture. He had gathered 150 cases from various sources, and the average shortening was less than one-half of an inch.

Of these there were from Bellevue Hospital 107 cases in which the average shortening was less than

one-half inch; from Roosevelt Hospital thirteen cases with an average shortening of five-eighths of an inch; from St. Luke's Hospital three cases with an average shortening of five-eighths of an inch; from Chambers Street Hospital fifteen cases with an average shortening of one-fourth of an inch; and from other sources twelve cases with an average shortening of one-fourth of an inch. Total, 150 cases with an average shortening of less than one-half an inch.

ANALYSIS OF CASES IN WHICH UNFAVORABLE RESULTS WERE OBTAINED.

A small number (five) of cases, in which decidedly bad results followed the application of the apparatus, were analyzed to see whether the result depended upon the improper use of the splint, or the improper management of the apparatus, or upon the unsuitableness of the case for the application of such an apparatus. The conclusion reached was, that in all the cases one or other of those conditions was present, and that the bad result was not necessarily attributable to the use of the gypsum apparatus.

The *first* case was recorded as a failure to take warning, from the evidence of impeded circulation, and remove the splint; the *second* case was unfit for the application of the apparatus, because of rupture of the popliteal artery; the *third* and *fourth* cases were those in which there were abundant causes for death, outside of the symptom produced by the splint; and the *fifth* case was one of deformity requiring refracture, and due to "taking in slack" in the splint instead of removing it and applying a new one.

A number of cases which entered Bellevue Hospital and were treated with Buck's extension with unfortunate results, were also mentioned. Dr. St. John did not attempt to explain why such unfortunate results followed, as two inches, one and one-half inches, two inches, and one inch shortening had occurred, but simply cited them as cases which proved that any plan of treatment might fail under certain circumstances.

USE OF ANÆSTHETICS.

From an analysis of the cases Dr. St. John reached the conclusion that an anæsthetic was not necessary to the successful employment of the plastic apparatus.

DISCONTINUANCE OF THE USE OF THE PLASTER-OF-PARIS APPARATUS IN BELLEVUE HOSPITAL.

With reference to the discontinuance of the use of plaster-of-Paris in the treatment of fractures in Bellevue Hospital, it was remarked that the frequency of the use of any apparatus depended at first, in a great measure, upon its novelty. Subsequently, when the experimental novelty had worn away, the details necessary to its success might be sufficient to prevent its use.

Dr. St. John then passed to the consideration of the cases in which its use was justifiable, and also noticed some of the rules which should regulate its employment. It was a proper dressing in most cases of simple fractures, compound fractures, comminuted fractures, sprains, and also for fracture of the ribs, in which instance it resembled the application of the plaster-of-Paris jacket for spinal disease.

One important rule regulating its use was, that it should never be applied so long as there was any doubt with reference to the integrity of the deep arteries and veins.

It was recommended not to cut away the splint upon the inside of the thigh, in case the splint became loose, but to remove it and apply a new one. Again, it was important to wait until the maximum of swelling had been reached before the apparatus was applied.

In cases in which, after the application of the plaster dressing, there was the least evidence of sluggishness of the circulation, the splint should at once be cut down. In so doing it was not necessary to cut through either the pelvic band or the covering of the foot, hence the points from which extension and counter-extension were made were preserved intact.

In conclusion, Dr. St. John recommended the plaster-of-Paris splint as an efficient and reliable apparatus to be employed in the treatment of fractures, and one which, in the hands of experienced surgeons, was free from special danger. It therefore deserved a front rank in our list of apparatus, and, instead of abandoning it in disgrace, we should give it hearty welcome.

The paper being before the Section for discussion, Dr. A. C. Post remarked that in the main he was disposed to agree with the author of the paper in the statements which he had made as to the value of the plaster-of-Paris dressing in the treatment of fractures. He was inclined, however, to impress a little more strongly upon those who were not fully conversant with its application, the dangers attending its use. It had been his misfortune to see several cases of extreme deformity, after fracture of the thigh and treatment with the plaster splint, applied by men inexperienced in its application.

Reference was made to one case in which fully *one inch* of shortening occurred in a simple fracture of the thigh of a boy nine years of age, and the limb was also very bowed. He had not seen, in simple fracture of the thigh, such bad results under the extension treatment in the hands of any surgeon who undertook the treatment of such a fracture.

Reference was also made to two or three cases which had found their way into the Presbyterian Hospital. The patients had been treated outside by surgeons who did not understand how to apply the plaster dressing, and the result had been either non-union, or union with great deformity; the degree of deformity exceeding what he had been accustomed to see under any other method of treatment. In his lectures to students he had, upon this subject, given the following advice: Never to undertake the treatment of fractures by means of the plaster dressing without making themselves thoroughly familiar with all the details necessary in order to secure its successful application. It would be much safer for those who had not acquired such experimental knowledge, to treat fractures by means of some apparatus which permitted the surgeon to see the limb from day to day, to make measurements, to guard against deformity, etc., which would result from the bad application of the plaster-of-Paris dressing. He had seen very excellent results obtained by treatment with the plaster dressing, and he had also seen equally good results produced by treatment with the extension apparatus—the weight and pulley.

Dr. FRANK H. HAMILTON remarked that the paper to which the Section had listened was precisely such an one as he would have expected from Dr. St. John—namely, one of the most complete papers written upon the subject under consideration. It was as fair and impartial as the argument from an advocate of any particular measure of treatment could be. The position, however, which Dr. St. John had taken did not in all respects accord with Dr. Hamilton's experience and belief. Dr. St. John had rightly stated that the question was, which apparel made the best limbs with the least amount of shortening? To that Dr. Hamilton added, the period had passed when the reply of Johnson to Radley was referred to as a precedent.

Radley claimed that without any apparel whatever

he had treated a certain number of cases of fracture of the thigh, and that *all were cured*.

Mr. Johnson said in reply: "That a cure took place we do not doubt, but the information we should most desire would be on the length of the cured limb and on a few other matters of that sort."

That period had passed, and yet not so long as might be supposed. It was not many years ago that the Philadelphia Hospital, the New York City Hospital, and the Boston Hospital published the recorded cases of fracture of the thigh simply as *cured*, and without reference to statements regarding the length of the limb. Only rarely was any statement made as to whether the cured limb was straight or bowed.

With the exception of the tables furnished by himself many years ago, it was only quite recently that we had been supplied with anything professing to be carefully prepared statistics upon this subject. The first series was furnished by Dr. H. B. Sands, the next by Dr. St. John, then followed Dr. Van Wageningen, and subsequently those of Dr. J. D. Bryant.

It was to be observed that all those gentlemen were, or had been, when their reports were made, connected with Bellevue Hospital. We yet remained without any statistics, giving measurements, from any other hospital in the United States, except perhaps from the New York City Hospital, from which Drs. Lente and Buck had made certain general statements as to results without giving tabulated reports. Dr. H. was not aware that anywhere abroad such statistics had been furnished, giving the length of the limbs, the mode of treatment, the form and seat of fracture, and the deviation from a straight line in the cases reported as cured.

It was to be specially noted, however, that when the records of Bellevue Hospital were carefully examined there was found a most astonishing deficiency with reference to *recording results*. In probably more than one-half of all the cases of fracture, there was no record whatever made of the results obtained. When the records were searched with reference to results following fracture of the femur, but little improvement upon the facts as they stood with reference to fractures in general, was found. That fact showed that the gentlemen who made the records had not taken any special interest in the termination of the cases, so far as the result with reference to shortening was concerned, and would also lead to the suspicion that when the record was made the opportunity was not embraced to note such details of results as were required at the present time.

We now had come down to the question of *lines*, and not of inches, when deciding with reference to the value of different methods of treatment. When, therefore, such nice questions were to be decided it required a great degree of industry and experience. Dr. Hamilton insisted upon the *experience*, and maintained that, notwithstanding the high qualifications which the young men who entered Bellevue Hospital possessed, they were deficient in just that practical experience necessary in order to make the accurate measurements necessary for valuable records of results in this class of cases.

Not one of the gentlemen who had given to the profession statistics from Bellevue, including Dr. St. John, had himself made the measurements reported.

Dr. Hamilton insisted that the rule laid down by Dr. St. John—namely, that statistics were liable to be vitiated by bad observations—if applied to the statistics furnished by Dr. Sands, Dr. St. John, Dr. Van Wageningen, and Dr. Bryant, would vitiate them all.

It would not answer to say there was no other testimony, and, therefore, we must accept these statistics as valuable; for they were not valuable.



The question was between *lines*, and not inches; and, therefore, he regarded all the statistics given as vitiated; and he made that statement without intending to imply any disrespect for the gentlemen by whom they were published.

Dr. Hamilton then made special reference to the statistics published by Dr. Van Wageningen as a "supplement" to Dr. Sayre's report to the American Medical Association in 1874 [See McClelland on Civil Malpractice]. There were thirty-two cases of fracture of the femur, and in only five out of that number did union take place *without shortening*. Such a result certainly was not very remarkable. Indeed, it was not so good as he himself (Dr. H.) had been able to obtain by another method of treatment.

Heretofore he had hesitated to separate his own cases from those belonging to other surgeons, but he would now do so, and show that the results reported by Dr. Van Wageningen were not so good as those obtained by himself. What he had been able to accomplish had already been published in part in the last edition of his Treatise upon Fractures (5th ed.). In that work he had reported twenty-four cases of fracture of the shaft of the femur, and in seven of those cases *perfect* recovery had taken place. The average shortening was less than one-half inch, and in not a single case did the shortening exceed three-fourths of an inch.

Dr. Hamilton stated that he had never had one and one-half inches of shortening in a case of fracture of the shaft of the femur which he himself had treated; while if reference was made to Dr. Van Wageningen's tables, it would be seen that in one case shortening occurred to the extent of  $1\frac{1}{2}$  inches, in one  $1\frac{1}{4}$  inches, in one 2 inches. Those cases were explained, in the report, by the fact that one patient had delirium tremens, one had pneumonia, and one had pleurisy. Dr. Hamilton thought that neither of those diseases, the delirium probably continuing only a few days at most, would have prevented better results had an attempt been made to obtain them by the use of Buck's extension apparatus; inasmuch as they simply prevented the patients from going about, a privilege regarded by some as essential to the success of the plan of treatment by means of plaster.

He then gave an analysis of his experience in the treatment of fractures of the shaft of the femur during the past year. The analysis related to forty cases of fractures of the femur treated in the fourth Surgical Division of Bellevue Hospital, which came more or less under his observation. Of those, only one was treated by plaster-of-Paris throughout. The number of cases of fracture of the shaft treated *exclusively* by Dr. H., not including fractures involving the knee-joint, or occurring at and about the neck of the femur, was *four*. Of those four, one was perfect, and a second was shortened only one-eighth of an inch. In computing the shortening, and in measuring limbs treated by other surgeons, Dr. H. had always been in the habit of admitting as perfect those which were shortened only one-eighth of an inch. According to that rule, therefore, there were two perfect cases out of the four. Including the cases previously reported by him in his book, fifth edition, he had treated seventeen cases of fracture of the shaft of the femur by Buck's extension apparatus, and out of those, seven had furnished perfect results; of those seven, only four were under eighteen years of age. In not a single case was the shortening over three-fourths of an inch; the average being almost exactly two-eighths of an inch or a fraction less.

Assuming, therefore, that the records from Bellevue Hospital as published by Dr. Van Wageningen were ac-

cepted, he had obtained *better* results than had been claimed for the plaster-of-Paris dressing, and every one of the limbs was straight. His standard accordingly was higher, and it was to make perfect limbs *always* if possible. With reference to the conditions of the limb, there was not a case of ankylosis or crooked limb in his own records, while in the statistics published by the gentlemen mentioned, a number of such cases appeared.

With such facts before him, how was the conclusion to be avoided that one was a better and the other a worse method of treating fracture of the femur, and that in the use of the plaster-of-Paris dressing we had made a step backwards. When he saw that a step backwards had been taken, he believed it to be his duty so to teach.

He had no predilection for any form of apparel. There was no form of apparel which he used when he first commenced practice that he still continued to employ without more or less modification. In the great majority of fractures occurring below the knee, he employed, by preference, the plaster-of-Paris dressing. Once he thought differently upon that point, but he had changed his opinion in that respect, and he might come to prefer the plaster treatment for fractures of the thigh, but such was not his expectation. He had used plaster-of-Paris dressing for fractured thigh, and should probably continue to employ it, but should very seldom, if ever, use it as a primary apparatus.

Other things being equal, that method of treatment was the best which was the least dangerous, and could be most safely applied by the inexperienced surgeon. What then was, by this rule, the best method? If the plaster-of-Paris dressing required extraordinary care in its adjustment in order to prevent accidents, surely it could not be regarded as the best.

For the country practitioner who could not see his patient daily, most certainly it was not safe, and, therefore, was not the best method.

#### THEORETICAL OBJECTIONS CONSIDERED.

With reference to the theoretical objections to the plaster splint, especially as bearing upon the question of extension and counter-extension, he had not found such extension and counter-extension maintained *effectively* in any case which he had seen. The splints had always seemed to him to be loose within three or four days after their application; at least, he had been able to push his hand down between the splint and the thigh. Gentlemen said that the splints should not be so loose; but they were, nevertheless. Dr. Hamilton did not believe that any apparel, which was thus loose, could maintain extension and counter-extension. It was a plain question of mechanics, and it seemed to him that it was easy to be comprehended that a loosely fitting dressing could not prevent the tendency to shortening. Dr. Hamilton did not agree with Dr. St. John in the statement that the tuberosity of the ischium was able to bear the pressure of the plaster splint, and thus give counter-extension. It was not able to accomplish any more than did the old *perineal band*, and the old perineal band never overcame the tendency to shortening; for the reason that the perineum could not bear its pressure.

Practically, the perineal band had been abandoned, because of the liability to produce ulceration. If pressure could not be borne on the perineum, it must be made upon the sides of the thigh; and if the dressing loosened from the sides of the thigh, its point of support was removed, and it could not but fail to maintain any counter-extension.

But the recommendation had been made to cut the

splint open. When, however, that was done, all extension was lost, if any existed, and the surgeon must again commence his treatment.

Theoretically, therefore, Dr. Hamilton regarded the doctrine that the plaster-of-Paris splint could maintain extension and counter-extension, such as should be made in the treatment of fracture of the thigh, as unsound.

With reference to accidents, he had never known or heard of a case in which gangrene had followed the use of Buck's extension apparatus, as had happened frequently after the use of the plaster-of-Paris dressing.

Dr. Hamilton subsequently presented a photograph of a patient who had sustained an extra-capsular fracture of the *left thigh*, which was treated by plaster-of-Paris, at Bellevue Hospital, five or six years ago; and who, having fallen, received an extra-capsular fracture of the *right femur* a few months ago, and was treated at Bellevue Hospital by Buck's extension apparatus. In that case the result was as follows: the *left leg*, treated by plaster-of-Paris, was one-half inch shorter than the *right leg*, which was treated by Buck's extension, and the left had opposite the trochanter major an ugly projection. Dr. H. regarded that as a test case of the relative value of the two methods of treatment. In conclusion, he read the following summary of the forty cases of fracture of the thigh treated at Bellevue Hospital, from January 1, 1877, to January 1, 1878.

Of the forty cases *one* was treated by the plaster-of-Paris dressing *alone*, from the beginning to the close of the treatment.

In thirty-two cases the treatment was *exclusively* by Buck's extension, or by some modification of that apparatus. In one case, treatment was conducted upon a double-inclined plane, the patient having a bent and ankylosed knee. In three cases plaster-of-Paris was used from two to seven days, and then removed on account of its inadequacy, or of the pain which it caused, and Buck's extension substituted. In the cases of two children, aged respectively 4 and 7 years, the first had been treated outside with plaster two weeks, and the limb was very crooked; extension was substituted, and the result was a perfect limb. In the second case, plaster was used from the 10th to the 19th day; from that time, the splint having given way, it was treated by plaster reinforced with a long splint.

DR. LEWIS A. SAYRE remarked that he was happy to find himself sustained by Dr. Hamilton in the views which he had always entertained with reference to the occurrence of shortening after fracture. He (Dr. S.) had held for many years that the point aimed at in the treatment of fracture of the femur, or any other bone, should be a *perfect cure*, or, in other words, union *without shortening*. In accordance with that principle he had claimed that proper treatment consisted in making only such extension and counter-extension as was necessary to produce an accurate adjustment of the fragments, and then apply something to *retain* them in that position. He did not hold to any special plan of treatment, but adopted that which he thought would best fulfil the indication and carry into effect the general principle for which he contended.

He was glad to hear Dr. Hamilton bring the standard of success, in the treatment of fractures, within *limits*, as we should probably, sooner or later, come to the agreement that a fractured bone could unite *without shortening*, if all the necessary conditions could be maintained. Whether all the necessary conditions could be maintained, Dr. Sayre was not able to determine, but he contended that, within reason-

able limits, they could be secured. Dr. Sayre thought that opening the plaster-of-Paris splint did not remove the extension and counter-extension. On the contrary, the extension and counter-extension was made before the application of the plaster splint, which simply *retained* what had been *obtained* by the extending and counter-extending forces.

As good a result as he had ever seen was obtained in a case which was treated without any apparatus whatever. The patient was placed in a chair so that his body and limbs were substantially in the position which would be given by using the *triple-inclined plane*. The man was run over by one of the teams belonging to a large manufacturing firm in this city, and when he recovered he brought suit against the company for damages. The jury failed to find a verdict for the plaintiff, because his injured leg was as long as the other, and in every respect seemed equally as good. Inasmuch as we had lately come to learn that measurements before fracture was necessary, in order to determine whether shortening was present or not after the fracture had united, all of the statistics heretofore given might prove to be of but little value.

Dr. ALLEN thought that the point had not yet been reached at which we were qualified to compare one method of treatment with the other. As a rule, he favored Buck's extension. Still, he had seen admirable results follow the use of the plaster-of-Paris dressing. If the patient was a person who required exercise, and was not able to endure the confinement incident to treatment by means of Buck's extension apparatus, it was, perhaps, well to take the chances of getting slightly less favorable results and adopt the plaster treatment.

DR. J. D. BRYANT remarked that he was a firm believer in plaster-of-Paris dressing. He thought that, if cases were gathered promiscuously, the results after treatment by means of Buck's extension apparatus would not be found to be so favorable as after treatment by means of the gypsum splint.

Dr. ST. JOHN remarked, by way of re-statement, that only 107 of the 150 cases he had reported were treated in Bellevue Hospital.

Dr. W. T. BULL, who had furnished Dr. St. John with a portion of the cases referred to as coming from outside Bellevue Hospital (Chambers St. Hospital), remarked that he had been fairly satisfied with the results obtained by the use of the plaster-of-Paris dressing. He well recollected when an interne at Bellevue Hospital that the results obtained in treatment of fractures of the thigh by means of Buck's extension were not so favorable as those obtained by means of the plaster-of-Paris splint, and he was somewhat surprised to hear the results which Dr. Hamilton had given.

With reference to loosening of the plaster splint, he believed that, when the swelling had been allowed to reach its maximum, the shrinkage, after the adjustment of the splint, would not be so great as had been represented.

Dr. ST. JOHN, in closing, said that Dr. Hamilton seemed to lose sight entirely of the object of the argument of the paper, which had been distinctly stated to be to claim a legitimate place for the treatment by the gypsum apparatus, and not to establish a comparison between this method and any other. He asked if Dr. H. still adhered to his assertion "that with this apparatus the limbs shortened as much as it was possible for it to shorten." (Dr. H. said that when he made that assertion he meant what he said, but he now desired to recall it.)

The cases adduced by Dr. H., treated by extension, showed remarkable results, but it was utterly unfair



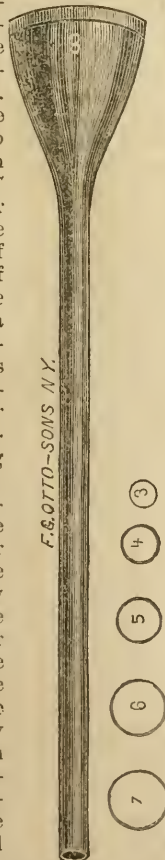
to ask that these cases treated under the personal supervision of Dr. H. should be compared with cases taken at random from general hospital statistics, for cases of extensive treatment taken in the latter way showed no such results as Dr. H. had brought forward. There was fortunately a set of cases in the statistics brought forward to-night which were treated under the personal supervision of one man, Dr. W. T. Bull, of Chambers Street Hospital, and these fifteen cases, which were all of the shaft of the femur, would bear comparison with the seventeen cases of fracture of the shaft adduced by Dr. H., the average shortening being the same, the maximum less, and there being no deformity. As for the extreme accuracy in measurements, brought forward by Dr. H. as showing the perfection aimed at in treating such cases, it was self-evident that the facts recently brought to light by Dr. Wight, of Brooklyn, and endorsed by Dr. H., as to a normal difference in the length of the two legs, rendered nugatory any such attempt at exactness, and overthrew all arguments for the superiority of any particular method which rested upon measurements to within the minute fraction of an inch.

## New Instruments.

### ZAUFAL'S TRICHTER OR SPECULA.

PROF. ZAUFAI, of Prague, has called the attention of the profession to Trichter or specula for the examination and treatment of the naso-pharyngeal space, of which the accompanying cut is intended to show the general shape and length (11 centimetres) and the size of the smallest. There are five different sizes. The circles in the cut are intended to represent the smaller ends, which should be respectively 3, 4, 5, 6 and 7 millimetres in diameter; the Trichter have these numbers. They are made of Britannia-metal (neu-silber) or of hard rubber. It is an advantage of the former that they can be made rather thinner than the others; a further advantage is that, being polished internally, the illumination is much better. An advantage possessed by those made of hard rubber is, that acids or caustics can be introduced through them without injuring them.

In order to examine the naso-pharyngeal space a Trichter of suitable size is passed through the inferior (or middle) meatus of the nose, the greatest possible care being taken by the operator to avoid injury of the Schneiderian membrane. In order to succeed in this, the most delicate manipulation is requisite. When the Eustachian catheter can be used, one of these Trichter can almost certainly be introduced. When in position the posterior wall of the naso-pharyngeal space, the mouth of the Eustachian tube, and the upper surface of the soft palate can be seen, local applications can be made under direct vision, and polypi may be snared out. Except



for their greater circumference and length, and the greater sensitiveness of the tissues of the nose, they present no practical difficulties that do not also apply to the use of the Eustachian catheter and the ordinary aural speculum. The parts are seen *erect* and not *inverted*, as when seen by means of the rhinoscopic mirror, which is an immense advantage as regards treatment. A good reflector, such as is used for the ear or larynx, gives from an Argand gas-burner or student's lamp a sufficient illumination. 3, 4 and 5 are the sizes most frequently required.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 7 to July 13, 1878.*

SMITH, A. K., Major and Surgeon. To report to Superintendent G. R. S. for duty at the General Recruiting Depot, David's Island, N. Y. II. S. O. 143, A. G. O., July 3, 1878.

MIDDLETON, P., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Porter, N. Y. S. O. 120, Dept. of the East, July 13, 1878.

POPE, B. F., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Schuyler, N. Y. II. S. O. 116, Dept. of the East, July 8, 1878.

KIMBALL, J. P., Capt. and Asst. Surgeon. Assigned to duty as Attending Surgeon, Governor's Island, N. Y. II. S. O. 143, C. S., A. G. O.

PATZKI, J. H., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Ontario, N. Y. S. O. 120, C. S., Dept. of the East.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Hamilton, N. Y. II. S. O. 116, C. S., Dept. of the East.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 13, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| July 6, 1878....  | 0             | 5              | 56             | 2                          | 28       | 24          | 0          |
| July 13, 1878.... | 0             | 8              | 44             | 4                          | 20       | 31          | 0          |

PROFESSOR VAN BUREN'S ARTICLE ON EXTIRPATION OF THE RECTUM.—In our last issue a singular blunder occurred through an oversight at the printing office. At the conclusion of Dr. Van Buren's article on "Extirpation of the Rectum" was appended a portion of the discussion on plaster-of-Paris splints, following Dr. St. John's paper. Of course, our readers could recognize in so palpable an error one of those occasional and annoying accidents that sometimes occur under the most careful editorial management. Professor Van Buren's article should terminate within two lines of the bottom of the first column, page 24.

**FIBROID TUMORS OF THE UTERUS TREATED BY SCLEROTIC ACID.**—Dr. John Williams reports two cases of uterine fibroid treated by sclerotic acid. This acid dissolves readily in water, and in so far differs from ergotine. One of the cases was that of a woman aged thirty-four, who had suffered from severe flooding for some time. A fibroid tumor was detected, and half-grain doses of the acid were injected under the skin of the abdomen twice a week. The flooding was much reduced, but returned during a temporary discontinuance of the treatment. When the injections were again commenced, the flooding was checked as before. The tumor was reduced in size. Like results were attained in a similar case, including a decrease in the size of the tumor. The injection caused a little pain at the time, but that was all. It was followed in about half an hour by uterine contractions.—*The British Med. Jour.*, May 18th.

**GREEN TEA AS AN ANTIDOTE FOR OPIUM.**—Prof. Sewell, of Quebec, reports (*British Medical Journal*) the case of a lady, who had taken for the relief of pain three drachms of Battley's liquor opii sedativus every three hours till sleep was produced—altogether she had taken about three ounces and a half of the solution. When seen by Dr. Sewell, at 11 p.m., she was totally unconscious, with pin hole pupils, an imperceptible pulse, and, what seems almost incredible, only three respirations in two minutes. A strong infusion of green tea was prepared without delay, and half a pint of it was injected into the rectum, where it was retained for half an hour. This was repeated at intervals till 4 a.m., when the patient had so far recovered as to be able to speak, and at 8 a.m. she was pronounced out of danger. Even then, however, her sight had not recovered; she asked the attendant to light the gas, although the sun was shining brightly into the room.

**HYPODERMIC INJECTION OF DIALYZED IRON.**—Dr. W. H. Johnston, of Selma, Ala., writes: "I find a communication from Dr. W. M. Kemp, in a recent number of THE RECORD (June 15th), in regard to the *hypodermic use of dialyzed iron*. I was also induced to make a trial of it by reading an account of the flattering results derived from its use by Prof. Da Costa. I first injected ten minims, which produced agonizing pain immediately, and in a few minutes my patient expectorated a teaspoonful or more of bright blood from the lungs. It was two weeks before she recovered the use of the arm, but had no abscess. She insisted upon a second trial, and I consented, thinking my former preparation was bad. I then used equal parts of the iron and water, injecting fifteen minims of the two. This gave great pain, and was followed by an abscess, which, when opened, discharged about a teaspoonful of fluid, very black and offensive. Her arm was so painful for two weeks that she could not bear it to be touched. I have used hypodermically brandy, chloroform, quinine, strychnine, ergot, and a good many other medicines, but do not think I could be induced to try dialyzed iron again."

*The Illinois Medical Recorder* is a monthly journal of 28 pages, edited by R. E. Beach, M.D., of Van-dalia, Ill. It is to be devoted to the interests of the local societies of that State. We wish it the success it deserves. Dr. Beach does not wish it to be understood that the journal is intended to supply "a want long felt," unless the same becomes apparent in the future. At all events, he is earnest in his determination to make a creditable periodical.

**NEW ASSISTANT SURGEONS U. S. ARMY.**—The following gentlemen have passed the examinations of the Army Medical Board in this city, and compose the first class, and are recorded in the order of their merit, with the college from which they graduated: Dr. Victor Biart, Belgium, St. Louis Medical College; W. W. Gray, Texas, Bellevue Hospital Medical College, N. Y.; Louis Breehemim, Penn., University of Penn. (Med. Dept.); Louis A. La Garde, Louisiana, Bellevue Hospital Medical College, N. Y.

**AMERICAN ACADEMY OF MEDICINE.**—The next meeting of the American Academy of Medicine will be held at Easton, Pa., on the third Tuesday of September, 1878, at 3 p.m.

**DR. R. M. WYCKOFF**, of Brooklyn, N. Y., has been appointed Registrar of Vital Statistics for that city.

**AN EXTemporized FORCEPS.**—Dr. J. T. Crow, of Carrollton, Ill., has extemporized a very simple forceps which may be made useful for many purposes. It is constructed of two pieces of wire of variable thickness, according to size and strength of instrument. Each piece of wire is made into a loop. The latter forms the blades, while the ends form the handles. The blades are curved like the ordinary short midwifery forceps. Instead of a hinge, there is a curvature of each handle, which, when the blades are slid or looped into each other, forms a place for the insertion of a cork or the finger as a fulcrum. By this simple arrangement, Dr. Crow claims that the forceps in different sizes can be adapted to an almost endless variety of uses.

**DR. BURKE'S CASE OF TRAUMATIC TETANUS.**—In line 19 of Case II., instead of "giving him 3 iij. doses every half-hour," it should read, "gtt. i. doses every half-hour." Again, the strength of the alcoholic solution of the solid extract of the "bean" should be eight grains to the drachm.

**TREATMENT OF HYDROPHOBIA.**—Mr. O'Hara Brady reports, in a letter to the *Lancet*, a case of hydrophobia that got well under rather unusual treatment. It consisted, on the night the patient was first seen, in the application of a strong preparation of cantharides to the spine from the nape of the neck down, and in a vapor bath, which produced very free action from the skin, previously hard and dry. After this the patient became quieter and more disposed to sleep, the muscles of the neck became less rigid, and he could swallow a little. On the following day, Mr. Brady prescribed the bichloride of mercury every three or four hours, his object being to bring the system under its influence as quickly as possible. The paroxysms continued for some days, but gradually became less violent, and ceased entirely when the salivary glands were affected. The patient is now tolerably well. Mr. Brady believes that the sedative or narcotic treatment, usually employed in hydrophobia, tends rather to fix the disease than to eliminate the poison. Another cure for rabies, which is stated to have often been successfully employed by the Catholic missionaries in China, is the datura stramonium administered in decoction. The stramonium is said to produce "a new rabies, which cures the other, as cow-pox destroys the virus of small-pox." The Chinese antidote for stramonium is the decoction of licorice-root. Another, and still more efficacious Chinese remedy for hydrophobia, is the Hoang-nàn, a plant like the ivy. It is said to have cured leprosy, snake-bites, etc.



## Original Communications.

### PRACTICAL REMARKS ON THE REMOVAL OF POLYPOID GROWTHS FROM THE EAR.

By ALBERT H. BUCK, M.D.,

INSTRUCTOR IN OTOTOLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK; ONE OF THE AURAL SURGEONS OF THE NEW YORK EYE AND EAR INFIRMARY.

It is my purpose in the present brief paper to discuss simply those points which are of practical interest in connection with the removal of polypoid masses from the ear. As the successful removal of such growths from the middle or outer ear is often the means of arresting permanently an otorrhœa that has for years been a source of great annoyance to the patient, and as such cases of chronic otorrhœa are very numerous, it becomes at once a matter of great importance that a procedure which may be productive of so much good should be as widely and thoroughly understood as possible. I am well aware that treatises on diseases of the ear discuss this subject very fully; at the same time I believe that much yet remains to be said in regard to many matters of detail, which are of the greatest importance in securing satisfactory results from operative interference.

In the first place, it may be laid down as a rule that *chronic otorrhœa owes its existence to the presence of granulation tissue (or polypi) in the middle or outer ear, or to a circumscribed caries of some portion of the temporal bone.* Phthisical or tubercular patients sometimes (apparently) furnish an exception to this rule, but in otherwise healthy individuals it is exceedingly rare not to find one or both of the conditions mentioned above underlying the protracted discharge from the ear.

The first practical question, then, in connection with this class of cases, relates to the best means of thoroughly exploring the ear in all its parts. The physician, we shall assume, is conversant with the use of the concave forehead mirror,\* and is able to illuminate the walls of the external auditory canal and the outer surface of the drum membrane. He finds the external auditory canal filled with pus, and is therefore obliged to remove it before he can ascertain the condition of the deeper parts. Whether he employs the syringe or not for this purpose, he must in either case resort to the use of the cotton-holder (or probe) armed with cotton wool, before he can see accurately all that is to be seen. Indeed, the ability to thoroughly cleanse an ear, to lay bare every nook and cranny of this deeply-situated organ, is the key—if any one thing is—to an accurate knowledge of the

pathological condition upon which the chronic discharge from the ear depends, and consequently to the successful treatment of such cases.

If the external auditory canal is filled with a very foul pus, it is generally pleasanter for the physician to remove as much of it as he can by syringing. If the discharge, however, is not specially offensive, it saves time to begin at once with the cotton-wool.\* The so-called "cotton-holder" is simply a slender malleable steel probe, six inches long, and roughened on its sides for a distance of about half an inch from the end which is to receive the cotton. To this roughened end the cotton is applied by a twirling motion of the fingers. By varying the amount of cotton used and the mode of applying it, the physician can make a mop suitable either for the removal of large quantities of pus or mucus in the broad external auditory canal, or for the thorough cleansing of a small sinus leading through Shrapnell's membrane into the recesses of the middle ear. Those physicians who have hitherto trusted solely to the syringe for removing the obstacles which prevented them from seeing the deeper parts of the ear, will find that by aid of the cotton-holder they will be able to obtain a very much clearer insight into the extent and nature of the disease than ever before. But oftentimes, even after the most thorough cleansing with the syringe and the cotton-holder, masses of cheesy pus or of epithelium will be found lying upon the deeper parts and concealing them from view. While they might probably be brushed away by a somewhat forcible movement of the cotton-holder, it is not desirable to wipe off these parts in any but the most delicate manner. It is necessary, therefore, to resort to other means for the removal of such masses. A slender probe, made of pure silver, and shaped like the one represented in the accompanying figure, will be found of very great value for just this very purpose. The so-called "curettes" (see accompanying cuts) may also sometimes be used to great advantage in these cases. With these instruments scab-formations, masses of epithelium or of cheesy material, etc., can be dislodged or loosened

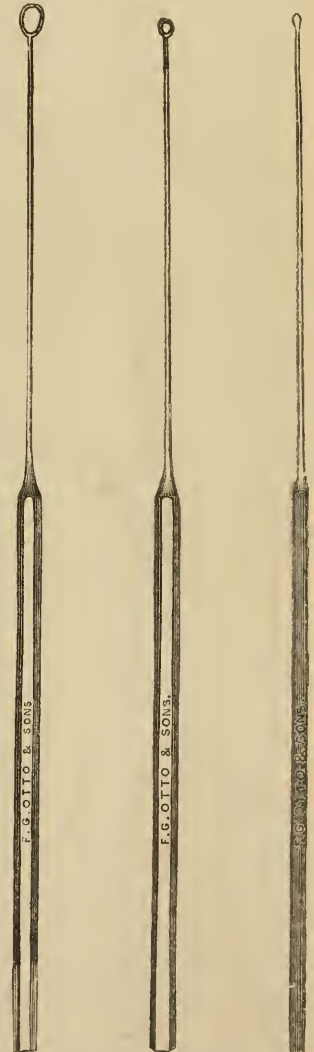


FIG. 1. — Malleable steel "curettes" and silver ear probe. Full size.

\* The ordinary forehead mirror, such as is represented in nearly all of the treatises on the ear, and such as nearly all the instrument-makers offer for sale, is of little or no use in examining the ear. The mirror is generally so large as to be clumsy and difficult to manage, and it does not, by reason of its larger size, furnish a better illumination than one of medium size. In the next place, the reflector is placed so near the forehead-plate that no room is left for the physician, who should use both eyes, to see between the two. Finally, the ball and socket joint is usually so constructed that the plane of the reflector cannot form with the forehead-plate an angle of less than 150 or 140 degrees. A forehead reflector, to be of practical use for otological purposes, should not be over three inches in diameter, and should be connected with the forehead-band or plate by a ball and socket joint situated not less than an inch and an eighth from the lower edge of the forehead-plate, and so constructed as to rotate freely from side to side and from before backwards, allowing the plane of the mirror to form with the forehead-plate an angle of 120 degrees. With such a mirror the physician may perfectly well use for illuminating purposes a gas or lamp flame situated at almost any elevation above the level of the patient's head; and besides, both his hands are left disengaged—a matter of no little importance, since the services of an assistant cannot always be secured.

\* The "absorbent cotton" is the best for this purpose.

from their attachments with little or no discomfort to the patient. Once detached from the underlying living tissues, these masses can readily be brushed out of the canal by means of the cotton-holder. In many cases, however, it will be found easier to lift out these masses by means of a suitable forceps with blades which form an angle of about  $135^\circ$  with the part held by the fingers. Here, again, it is necessary to call attention to the importance of using an instrument with *very slender blades* (length— $2\frac{1}{2}$  inches) and a *flexible spring*. Forceps cannot be used in the ear with delicacy and precision unless these two requirements have been fully met in their construction.

The external auditory canal once carefully cleansed, and the deeper parts exposed to view—so far at least as the removal of all extraneous matters can render them visible—our next step is to ascertain the exact limits of the region which is furnishing the constant outflow of pus. As already stated at the beginning of this article, *in the great majority of cases of long-standing otorrhea the discharge is kept up either by a curious process in some portion of the temporal bone or by a mass of granulation tissue situated in one of the following three places: the external auditory canal, the middle ear proper, or the mastoid antrum.* If the physician, therefore, expects to relieve his patient of his otorrhea, it is essential that he should ascertain, as accurately as possible, *where the caries or the granulation tissue is located.* It is not sufficient for him to ascertain in a general way that it is situated in the external auditory canal or in some part of the middle ear; he must ascertain the precise limits of the disease, just as the general surgeon does in caries of the tibia or in uterine polypoid growths. He must introduce his slender probe into every recess; he must touch with it every suspicious spot of redness; in a word, he must render to himself strict account of every portion of the ear within his reach. If the external canal is free from granulation tissue or from caries, and the pus clearly escapes from the middle ear through a perforation in the membrana tympani, he must pass his cotton-holder (armed with absorbent cotton) through the perforation and soak up the pus or mucus that fills the middle ear and prevents him from seeing the opposite promontory. In this way one can often bring to light a polypoid growth which otherwise would escape observation. But in many cases such a cleansing of the middle ear is not sufficient. The polypus may be so situated that no portion of it can be seen through the perforation. For instance, it may spring from the upper or outer wall, and may hang down on one side or the other of the opening. In addition, therefore, to the cleansing, it is advisable to bend the end of the probe slightly, and then, passing it in through the perforation, to rotate it in such a manner that it will be likely to bring into the field of vision any polypoid growth that may be located in the immediate vicinity. If these manipulations are executed with delicacy—the surgeon's eye being directed all the time upon the perforation, and account being taken of the exact situation of the (concealed) end of the probe—the patient will probably not complain of even a sense of discomfort, much less of pain. It is hardly necessary to add that the physician who does not possess delicacy of touch and the necessary skill in keeping any given portion of the ear steadily illuminated for a reasonable length of time, has no right to use either a probe or a forceps in the deeper portions of the ear.

This brings us finally to the question. What is the best method of removing polypi from the ear? If we bear in mind the fact that almost all aural polypi, no matter how large they may be, grow from a very

small and rather tender peduncle, we can readily appreciate how safe a proceeding it is to pull them out "by the roots." Further on we will call attention to the only exception which it seems necessary to make to this rule. Very few surgeons at the present day advocate the removal of aural polypi (*i.e.*, growths of an appreciable size) by any other than mechanical means. The slow, unsatisfactory, and sometimes painful plan of destroying them by caustics or astringents has been very generally abandoned. If a large polypus fills the external auditory canal and presents itself within easy reach at the outer orifice, an ordinary dressing forceps, or better yet, Hinton's polypus forceps, will serve the desired purpose as well as any other instrument with which I am acquainted.

The mass is firmly grasped between the blades of the forceps, and is then separated from its deeper attachments by a combined rotary and pulling motion, or simply by direct traction. If the polypus, however, is situated more deeply in the canal, and reflected light is required to render the mass visible, such an instrument as Hinton's forceps—unless the canal happens to be unusually large—will be found awkward to manage, and productive of pain to the patient. Blake's snare\* is the proper instrument to use under these circumstances. By aid of the slender silver probe the

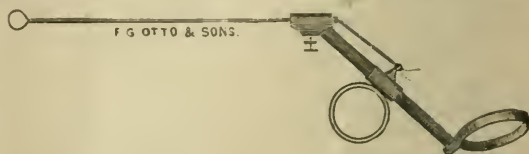


FIG. 2.—Blake's Polypus Snare. About half the full size.

physician can ascertain whether the mass grows from the cutaneous walls of the canal or from the middle ear or mastoid cells. Where the growth is of such size as to fill the canal, it is not necessary that he should satisfy himself of the exact situation of the base of the polypus before applying the loop of wire. It is sufficient for him to ascertain by actual probing that he can pass his snare over the mass to a given depth (distance from the orifice of the meatus) without encountering any obstacle. The loop is then

\* This instrument, which was introduced by Dr. Clarence Blake, of Boston, in 1869 or 1870, is sometimes spoken of as "Blake's modification of Wilde's snare." Those, however, who have compared the two instruments, and know from practical experience how different they are from each other, will agree with me that the more recent instrument is justly entitled to the name of "Blake's snare." In 1872 or 1873 the instrument was still further improved by the substitution of a simple canula of soft (pure) silver for the double-mouthed steel or German-silver tube usually sold with the instrument. The pure silver canula measures three inches (8 cm.) in length and but one millimetre in diameter (externally) throughout its entire length (except where it fits into the handle), while the steel or German-silver one measures two millimetres in diameter, and at the flaring end over two and a half millimetres. In cases where the external auditory canal is narrow, and where it is found necessary to remove a polypus which is situated within the tympanic cavity and which can only be reached through a comparatively small perforation in the membrana tympani, the great advantage of the slender silver canula is very apparent. But this is not the only advantage. In the double-mouthed canula the wire does not cut entirely through the polypus; a slender connecting cord of tissue always remains uncut between the wire and the septum which separates the two mouths of the canula. With this canula, therefore, the last step of the operation always consists in the tearing asunder of this connecting bridge of tissue—a procedure necessarily more or less painful to the patient. In the simple silver canula the wire, on being withdrawn into the tube, cuts the polypus off entirely at the point of seizure, all necessity for traction being thus done away with. As a result of this, the operation of removing a polypus from the ear is in very many cases an almost painless procedure. Finally, the employment of very fine malleable steel wire (size=No. 37), may be designated as the latest improvement which has been introduced in connection with Blake's snare. Wire of this size possesses all the strength required for the removal of the great majority of polypi, and at the same time causes far less pain to the patient, whenever it comes in contact with the healthy and very sensitive walls of the auditory canal or of the middle ear.



pushed in over the mass to this depth and tightened sufficiently to hold the polypus firmly in its grasp. Steady traction is then to be made, in the hope of pulling out the polypus, peduncle and all. In not a few cases this object will be attained; but even if the effort fail to remove the entire growth, at least as much of the mass will be torn off as would have been if the wire had been made to cut through the polypus instead of simply grasping it firmly. As soon as the bleeding has ceased, and the portion cut off by the wire loop has been removed with the bent forceps, the remainder of the growth is to be treated in precisely the same way as the first portion. The wire loop is to be applied again and again until the base of the growth has been cut away to the level of the surrounding mucous membrane or skin. In the first effort (or seizure) it is well to use traction, but if this effort fails to pull out the greater part of the polypus the subsequent efforts should be limited to cutting off as much of the growth as possible at each seizure, *no traction whatever being exerted upon the canula and wire loop.* If the polypoid mass springs from some portion of the external auditory canal it will be found as a rule decidedly firmer in texture and more sensitive than one of middle ear origin. In polypi of the latter variety we shall find that they spring more frequently from the upper and posterior portion of the middle ear (entrance to antrum) than from any other locality.

*It is a good rule in practice not to resort to the use of caustics until the base or peduncle of the polypus has been cut away with the snare to the level of the surrounding parts (skin or mucous membrane).* Furthermore, in deciding whether the peduncle has been cut away to the proper level, we are not to trust to the sense of sight alone; *the behavior of the peduncle, when circumscribed by the end of the probe, furnishes the only trustworthy guide to a knowledge of the exact relations which this peduncle bears to the surrounding parts.* When the mass has been so far extirpated that we cannot encircle it with a wire, we may, with benefit to the patient, resort to the use of caustics and astringents.

Before speaking, however, of the after-treatment, it would perhaps be well to consider for a moment the dangers, real or apparent, which surround the operative procedure just described.

As regards *hemorrhage* from the torn or cut surface of the mass, we need entertain very little anxiety. In malignant growths alone have I ever seen or heard of any loss of blood that could fairly be termed serious; and only once have I encountered anything like an arterial hemorrhage, requiring the use of a tampon or plug.

As regards the question of inflicting damage upon the apparatus of hearing in the middle ear, I have no doubt that clumsy and naskilful operative interference might result in serious impairment of the hearing. The hammer, however, and the firm ridge called Shrapnell's membrane, afford an excellent protection to the more deeply situated stirrup, which is by far the most important piece in the mechanism of the middle ear. Polypi are occasionally encountered whose peduncles include in their substance the handle of the hammer (the rest of the membrana tympani being destroyed). In such cases the wire must be applied with caution, and no traction whatever must be employed. The few polypi of this kind which have come under my observation were quite small, and were attached to the ossicle by rather slender peduncles. In one of them, however, I made the very mistake which I am now cautioning against (*i.e.*, I applied the wire to that portion of the peduncle which

included the handle of the hammer), and only discovered my error by finding that the wire could not be drawn back into the canula. By cutting the wire loose from the instrument and pulling upon one end of it, no difficulty was experienced in disengaging it from the ossicle.

Besides hemorrhage from divided vessels and injuries to the ossicles, I know of no other danger which may arise in the course of the operation for removing an aural polypus.

As regards the *after-treatment*, this must be modified according to the location from which the growth springs. If the polypus grows from the cartilaginous portion of the outer canal (as a result, for instance, of an abscess in this locality), and is firm in consistency, the application of nitrate of silver in solid form to the base which remains after the removal of the fleshy mass, will act rather as a stimulant to further growth. Fuming nitric acid, applied cautiously but thoroughly to the base, is the only remedy upon which we can depend to arrest promptly a further reproduction of the growth. As the fumes of the acid are apt to prevent the operator from seeing clearly what he is doing, an instrument called a "porte-acid" has been devised which enables the physician not only to apply the acid accurately to the desired spot, but also to confine its action in great measure to the region immediately cauterized. This instrument consists of a slender glass tube (four inches in length, not quite two millimetres broad, and somewhat flaring at both ends), through which a platinum wire of moderately small size passes. One end of the wire is bent upon itself, so as to prevent the mop of cotton-wool, which is wound round it, from falling off. When the instrument is to be used, the wire should be first pushed into the tube far enough to carry the mop end of the wire well outside of the flaring end of the tube. The mop having been dipped into the acid, the other end of the wire is then to be pulled out far enough to draw the mop well back into the flaring mouth of the tube. The base of the growth having first been thoroughly dried, the flaring end of the tube should be placed firmly upon the raw surface, and, while in this position, the mop should be pushed down firmly against the part to be cauterized. The reaction which follows is very slight, and the pain of but short duration. The best way to remove the mop from the platinum wire is to burn it off in the gas flame.

In a few cases of middle ear polypi, it will be found advantageous to apply nitric acid to the base of the growth in the manner just described. Where the base, for example, is unusually broad and firm in texture, nitrate of silver is apt to act rather as a stimulant to further growth, while nitric acid will much more surely repress the tendency to grow. In these cases,

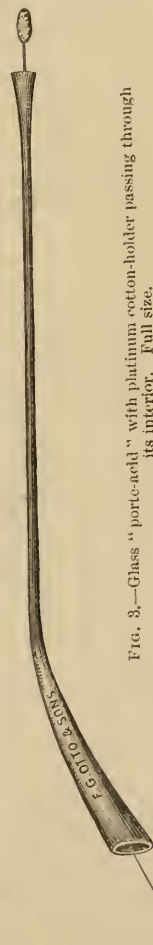


FIG. 3.—Glass "porte-acid" with platinum cotton-holder passing through its interior. Full size.

however, *the acid should be applied with great caution.* The firm pressure, which it is perfectly proper to use in the case of growths in the external auditory canal, would here be likely to produce a very unpleasant reaction.

As regards the employment of such reagents as chromic acid, acid nitrate of mercury, acetic acid, sulphate of copper, etc., for the purpose of checking the growth of granulation tissue or polyp, my own experience has led me to abandon them all. Chromic acid and acid nitrate of mercury are very treacherous remedies; they seem to penetrate to a much greater depth than nitrate of silver, or even nitric acid, and are apt to be followed by considerable pain. Absolute alcohol cannot be used properly unless it be made at the same time to bathe all the surrounding healthy tissues. Its effects seem to be superficial and evanescent. In the great majority of cases, pure nitrate of silver, fused upon the end of a cotton-holder or probe in the form of a rounded bead, will be found the most convenient, most efficient, and least painful of all the caustics. Each application should be followed by the mopping process with the cotton-holder, in order that the caustic may not spread beyond the limits of the diseased locality.

Oftentimes a single cauterization will suffice to complete the levelling process begun by the wire snare. In a few cases the snare will be found to have done its work so effectually that the intermediate stage of the treatment—that of cauterization—may be omitted altogether. It should be clearly kept in mind that the caustic is to be used for the express purpose of destroying the superficial portions of the stump of the growth, in order to bring it down to such a level that the surrounding healthy mucous membrane may grow out from all sides over the mass, and so furnish it with a natural covering of mucous membrane.

That nitrate of silver also exerts a beneficial astringent action,—that it sometimes seems to restrain in a most remarkable manner the tendency to the production of lymphoid elements (pus or tissue-forming cells), cannot be denied by anyone who is in the habit of using it much. In a large number of cases, however, it produces the very opposite effects. Hence the desirability of resorting as soon as possible to the use of pure astringents.

The third and last stage of the treatment consists in the application of astringents to the remaining stump of the growth. The parts are to be thoroughly dried with the mop of absorbent cotton, and then powdered burnt alum or iodoform (or a mixture of the two) is to be laid upon the dried surface pretty thickly. By moistening the end of the slender silver probe and then dipping it into the powder, one can readily take up quite a large mass, which will cling to the end of the probe with sufficient tenacity to enable the physician to transfer it to the desired spot in the middle ear or outer canal. These pellets of powder are to be applied again and again, until the granulating surface is thoroughly coated with the remedy. In a few cases I have observed that iodoform (finely powdered) has been able to completely arrest all further growth and all secretion of pus, when the alum had failed to accomplish the desired result. In my hands the iron and tannin preparations have not proved so efficient as the two remedies just mentioned.

If all these efforts fail to arrest the otorrhœa, we may pretty safely draw the conclusion that a carious condition of some portion of the temporal bone (the posterior end of the tympanic cavity, in the majority of the cases), or an undiscovered granulation-growth is the source of the continued discharge. In regard

to the caries, it would lead us too far to enter into a study of this question in this place. In the case of hidden growths, our best course is to abandon all active treatment and to simply examine the ear at longer intervals (say once in three or four months). After a varying length of time the growth may attain such a size as to encroach upon some visible part of the ear, when it will readily be discovered if the physician examines carefully.

Finally, in a limited number of cases, the external auditory canal is so narrow, or the anterior or lower wall so prominent, that we cannot obtain a view of the spot from which the polypus springs, although the greater part of the growth can readily be distinguished and easily removed. In these cases we are quite likely to experience defeat, so far as the attainment of a perfect cure is concerned; but the removal of the greater part of the mass will, as a rule, greatly diminish the otorrhœa, and oftentimes also improve the hearing, for a period of several weeks or even months.

If I have said nothing about the removal of polypoid growths by means of the galvano-cautery wire, it is simply because I cannot see what advantage is to be gained by the use of this instrument. Blake's snare fully meets all the requirements of the case, and in the matter of simplicity and cheapness it is far superior to the complicated galvano-cautery. I have also omitted to speak of the different solutions of tannin, sulphate of zinc, acetate of lead, nitrate of silver, etc., which some authorities recommend as useful in cases of polypus. As I long ago abandoned their use in such cases, I have not thought it profitable to waste any time here in speaking of them.

## RAPID AND FORCIBLE DILATATION OF CERVICAL CANAL FOR REMOVAL OF OFFENDING BODIES,

WITH DESCRIPTION OF INSTRUMENTS FOR THE PURPOSE.

By H. T. HANKS, M.D.,

NEW YORK.

Two years ago a patient of Dr. W. H. Hall, who had previously suffered from epilepsy, became pregnant. She had given birth to two healthy children before, and had carried them to full term without serious inconvenience to herself. At this time, however, the epileptic seizures became exceedingly frequent and alarmingly severe—so much so, indeed, that Dr. Hall and myself both decided that, since medicines had apparently no control in averting the attacks or mitigating their severity, the only safe and judicious course to pursue would be to cause the expulsion of the two months fetus. The patient lived a few miles out of the city, and it was the wish of the family that Dr. Hall and myself should take full charge of the case without calling in the local physician. Under these circumstances it became a question with me how to safely and thoroughly accomplish this end and make but one visit myself, and cause as little journeying as possible for Dr. Hall, and not oblige any physician to call until the following day.

I finally decided to rapidly and forcibly dilate the canal, give a full dose of ergot hypodermically, and then remove the ovum by means of the placenta forceps or loop of wire.

Knowing how little dependence can be placed upon Molesworth's, Barnes's, or the soft rubber air-dilators,

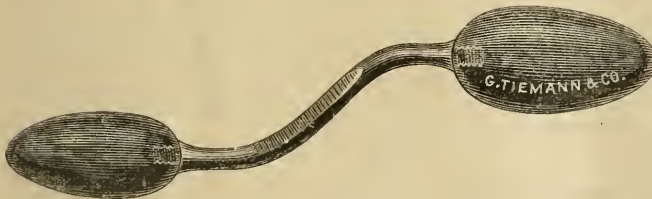


when they have been once in use and laid aside for a few months, and knowing from experience how well the healthy unimpregnated cervix uteri will bear rapid dilatation up to No. 24. American scale of bougies, without laceration, I decided to dilate in this case in the most rapid manner possible without injury to the parts involved.

We therefore anaesthetized the patient, introduced a speculum, seized the anterior lip, and in regular order introduced the common hard rubber dilators,\* from No. 16 up to No. 22, then changed to the smaller sized rectal bougie, and from this to the next larger, and so on up to No. 10. At this time a full dose of fluid extract of ergot was given hypodermically, after which the placenta forceps were introduced and the ovum was quickly removed. The whole operation did not last forty-five minutes.

The patient made a quick and in every way satisfactory recovery.

Since this time I have witnessed the bursting of several of Molesworth's and Barnes's dilators, and thought much of hard rubber dilators, to take the place of these perishable soft rubber ones. I have therefore had the Messrs. Stohlmann, Pfarre & Co., of this city, manufacture for me a set of *ten* dilators, two of which are herewith represented attached to the double-curved handle.



Each dilator is hollow and more or less ovoid according to its size, as may be seen in the cut. The length varies from two to three and one-half inches; the diameter from one-half to two inches, in proportion to the length. The larger end of each is made to fit either end of the screw-handle rod, which is curved in opposite directions at each extremity, flattened on one side, for security of grasp, and about five inches in length.

In using these dilators it is absolutely necessary to have a strong tenaculum forceps in order to firmly fix the cervix. The Messrs. Stohlmann, Pfarre & Co. have made for me a very convenient tenaculum forceps which will be found to fully meet the requirements of each case, and has never yet been known to tear the cervix.

With this instrument I seize the anterior lip—one blade inside, the other opposite—fully one-third inch from the external os, and firmly fix the cervix, either with, or without the use of a speculum, according as it is expected to have much or little trouble in removing the contents of the uterus. I then gently but firmly force the smallest dilator into and through the external os, and entirely enter the cervical canal. This end is then withdrawn, and the opposite and next larger dilator is in like manner pushed into the canal. When this end is tightly held within the canal, the smallest dilator, which is now grasped by the hand, is unscrewed and a larger one is screwed in its place. Then the ends are again reversed, and the same course is pursued until the canal is of sufficient size to allow the quick and safe removal of the offending body.

I have used this set of dilators with entire satisfaction in four cases. One patient I saw in consultation with Dr. J. R. Cypert. One in consultation with Dr. D. C. Comstock, and two in my own private practice, besides the one patient in which I used the rectal bougies as before mentioned, and in which the operation consisted in dilating in a similar manner.

The patient of Dr. Cypert had carried a dead three months fetus for several weeks when the Doctor first saw her. She had lost much blood. He applied a tampon after introducing a small sponge-tent. On the following day I saw the lady with him, and on giving ether we easily dilated with these instruments here described, and in about thirty minutes removed the bones and some other portions of the dead fetus.

The patient made a good recovery.

Dr. Comstock's patient was six weeks pregnant when attacked with uterine hemorrhage. He applied a tampon and gave anodynes. She had but little subsequent hemorrhage, but suffered from slight back-ache pains, and an offensive, dark-colored discharge from the vagina. On my visit I found the external os the size of the little finger, while the internal os was well dilated, and by making firm pressure a loose, fleshy body, the size of a pigeon's egg, could be felt near the dilated internal os. The patient was in good physical condition, and we decided to deliver the

ovum without giving ether or using a speculum. The anterior lip was seized with but little difficulty, and the four smaller sizes of the dilators in regular order quickly introduced, and in exactly sixteen minutes from the time I took my place at her side the ovum was removed. It was found to have been filled with a large clot of blood which had completely obliterated the embryo.

My own cases were much like this last. In both, the question of relieving the patient from the danger of hemorrhage and hours of suffering, together with the saving of much time for myself, came up, and was decided for me by the patients, who were eager to have the anxiety and suffering ended.

One patient had lost "great quantities" of blood before my arrival. The instruments were used in both cases without ether, with success, and both patients did well.

In conclusion, I can recommend the dilators, and should advise their use, where the cervix is healthy, and it is necessary to remove:

- 1st. A retained small or large piece of placenta,
- 2d. A fibrous polypus or tumor,
- 3d. An aborted ovum or dead fetus.

Even in cases where the child is viable, and it is found necessary (as in placenta previa) to dilate rapidly, I am certain these instruments would accomplish quickly and safely, in judicious hands, what no other dilators have ever done.

149 LEXINGTON AVE.

ASSASSINATION OF A PHYSICIAN.—Dr. José Guirado, of Zurgena, province of Almeria, was brutally murdered on the 24th of last May. He was first beaten with clubs until he was nearly dead, and his head was then crushed to a jelly by means of a heavy stone. When the body was discovered a piece of paper, on which the words "This is the first of three" were written, was found pinned to the wristband. The victim was one of the purchasers of some hills that belonged to the commune, and this was the only apparent motive for the crime.

\* See MEDICAL RECORD, Sept. 25, 1875, page 655.

## CLINICAL NOTES ON OPIUM HABITUATION.

By J. B. MATTISON, M.D.,

BROOKLYN, N. Y.

THE following notes are believed to be the first ever presented from an institution exclusively devoted to the treatment of the disorder to which they refer. As such, they may have more than a passing interest.

A. B., *et.* 32, physician, Minnesota; one year's habitation; maximum daily quantity, 5 grs. Morphia hypodermically; cause, migraine, with supposed cardiac lesion. The disastrous results of his addiction, which involved some very remarkable experiences—mainly mental—were noted in this journal, May 18, 1878. They were striking, somewhat exceptional, and may have been deemed overdrawn, yet doubtless were true; patient assuring us he was rapidly drifting towards insanity.

When Dr. B. presented himself for treatment his physical condition was good—an examination by Prof. Flint revealing only functional heart derangement—and being desirous of rapid abandonment, the morphia was withdrawn without the usual preliminary sedation, and, as a result, the attendant discomfort was much greater than in the other cases herein detailed. The initial distressing symptom was a severe cephalalgia—not of long duration—followed by cramps of the lower extremities, rectal tenesmus and restlessness. The remedies employed to meet these indications were bromide of sodium, chloral, and hot baths. They gave great relief, each exerting an influence for good in ameliorating some phase of the resultant nervous irritability. Chloral acted notably well as an anodyne, effecting marked and rapid relief to the gastrocnemial pain. The baths, temp. 100 to 110°, ten to thirty minutes' duration, as often as restlessness required, lessened greatly the general hyperæsthesia. No emesis; bowel relaxation slight. The nervous disturbance subsided in six days. Convalescence was rapid, only interrupted by severe sciatica, which proved rebellious to treatment until resort was had to superficial vesication over nerves affected—emp. canth.,  $\frac{1}{2} \times \frac{1}{2}$ , eighteen on one limb, nineteen on other, from hip to heel—when the pain departed and did not return. The same good result from like treatment under similar circumstances was noted in the RECORD, April 10, 1875. Patient was dismissed cured in less than a month. Tidings recently received report him doing well.

C. D., *et.* 38, physician, New England; four to five years' habitation; maximum consumption, 16 to 20 grs.; morphia hypodermically per diem; cause, toothache; initial daily dose, five minims solut. Magend., never exceeding ten. This sufficed for six months, then gradual increase, reaching, in two years maximum allowance. The effects of addiction were intestinal, vesical, and sexual torpor; conjunctival irritation; loss of memory; mental slowness; great drowsiness, with disinclination to rising, and marked muscular twitchings, the latter sometimes so violent as to force him from his seat or a book from his hands. Disastrous results related largely to these latter symptoms, interfering with his vocation—not rising till nearly mid-day, forgetting his patients, falling asleep while making a call or giving office advice, etc.—and change for the better became imperative as a matter of professional standing and financial economy.

For one month prior to admission, Dr. D. had been reducing his daily quantum, until on entrance it was only about five grains. His general health not being

much impaired, sedative treatment was at once begun, its effect secured, and the morphia withdrawn in five days. The principal sequelæ were moderate restlessness and lumbar pain. The therapeutics of the case included bromide of sodium, chloral, hot baths, and atropia hypodermically. The baths invariably relieved restlessness. Atropia,  $\frac{1}{16}$  gr., deeply injected in the lumbar muscles, acted exceptionally well in mitigating the local discomfort. Chloral was not largely used, its effect being unpleasant, seeming to intoxicate. No gastric disturbance, and the bowels not relaxed until nearly a week after the morphia was discontinued. The restlessness subsided in 56 hours. Convalescence prompt, and patient dismissed; recovered in less than four weeks. Recent advices state: "I am well, . . . looking well and getting stout. Have not suffered from the deprivation of morphia, and have felt no inclination to resume."

E. F., *et.* 42, physician, New York; ten years' habitation; maximum daily taking, 18 grs. morphia hypodermically; cause, peritonitis. The effects were alvine torpor—for years no evacuation without enemias; vesical and sexual debility; anorexia; indigestion; hemorrhoids—the hemorrhage sometimes profuse; mental depression; muscular weakness and emaciation; in general, a wreck-like state of mind and body.

On admission was pallid and weak. Tonic régime—strychnine, iron, and digitalis with generous diet—for ten days. Morphia reduced almost at once to six grains, without discomfort. Sedative treatment secured desired effect, and entire opiate withdrawal in eight days. During afternoon of last day's habitation—the final dose being one-third of a grain—had severe headache, of limited duration, relieved by hot sitz baths, and cold to the head. Moderate restlessness followed, subsiding in 48 hours. No other symptom of note. No vomiting; no diarrhoea. Treatment, bromide of sodium, hot baths, and general faradization. Patient made an astonishingly rapid recovery, and was dismissed cured in less than six weeks. In a recent letter he says: "Do you ask, 'does the old enemy ever assert power, and tempt me to the hypodermic?' Most gladly can I answer, 'No.' There is not the least physical desire for morphia."

The foregoing cases, fairly typical of opium habitation, present some features deserving detail. All had their origin in an opiate prescription. In a recent paper—*Med. and Surg. Reporter*, February 9, 1878—we expressed an opinion that 80% of cases of this disease had more or less directly a like inception. Our records furnish no exception. The care demanded in opiate prescribing is thus strikingly obvious.

The exceptionally ensnaring power of opium is shown in the fact that Dr. B.—a man of unusually fine physique, and possessed of sufficient stamina to survive Salisbury prison when the death-rate averaged 80%—found himself a captive after only four weeks' use of morphia.

The disastrous results of opium excess bear no regular relation to the extent of addiction, either as to time or quantity. Dr. B., after less than a year's habitation, gave decided evidence of mental deterioration. Dr. D., though more than quadrupling the former, presented nothing marked in that direction. The same obtains relative to inroads made upon bodily health. Dr. E., a ten years' habitué, was in much better physical condition than another physician, who, though only a four years' consumer, looked on admission like a patient well advanced in tuberculosis.

All these patients had made repeated, but futile,



efforts at self-cure. The result of institutional régime is a sufficient comment on its value. A query, often presented, relates to duration of treatment. If the general health, at the time restorative measures are adopted, be *good*, one month will, in most cases, suffice.

Tonics and sedatives constitute the therapeutic reliance. The effect of *preliminary* sedative treatment in obviating the discomfort of withdrawal is so satisfactory that we are most firmly convinced of its value. Patients express surprise regarding it. Dr. D. declared "he had no idea so much could be done in that direction;" and Dr. F., writing of his case, remarked: "What an effectual work, . . . and brief, too, as effectual. I never could have believed it possible before I experienced the practical demonstration."

Bromide of sodium is preferred for its pleasanter taste. It is given, largely diluted, three—occasionally four—times in the twenty-four hours. The plan of frequent and prolonged administration—30 to 60 grs. every half hour, etc.—is not regarded with favor. The effect of the bromide being rather remote, this method incurs the risk of surcharging the system, and entailing unpleasant, if not serious, results.

The efficacy of hot baths has been alluded to. Their value is beyond dispute.

For removal of the muscular debility, we have found nothing equalling general faradization, twenty minutes séances daily. The sense of exhilarating comfort resulting is very decided.

Strychnia is always employed, with cod-liver oil, phosphorus, iron, digitalis, and quinine, as the case may demand; and out-of-door exercise, especially pedestrian, with varied social enjoyments, form valued adjuncts in treatment.

Our experience proves conclusively the efficacy of therapeutical resources in overcoming this formidable disorder, and warrants a favorable prognosis in all cases not complicated by organic disease.

PARRISH HALL, Brooklyn, N. Y.

## CASE OF CANCER OF DUODENUM, WITH PERFORATION.

By J. L. HICKS, M.D.,

FLUSHING.

R. E., aged 54 years, came to me on the 2d of May last with symptoms pertaining to dyspepsia and debility. He was a man of large frame, and presented nothing in his general appearance to arrest attention as the possible subject of any grave disease of any sort. He had during the past three years two or three attacks of intermittent fever, none of which confined him to the house for more than a day or two. On the present occasion, however, he seemed to exhibit some anxiety about himself, and I accordingly made a rather more detailed examination of his case than I should otherwise have done. I could find nothing, however, beyond the symptoms first spoken of, which were a sense of fullness after eating, which persisted for many hours; flatulence, with eructations; constipation, which had been more or less a life-long habit, and latterly loss of appetite, which had led him to be very irregular in taking food. Some four or five days after this visit to my office I was asked to see him at his house, where I found him in bed. He said he thought he had been having some fever (though his temperature at that time was normal), and complained of being very weak. He then spoke of a vague, dull

pain in the region of the stomach, which he described as having its apparent centre in the *left* hypochondrium. This pain, without much variation in character or intensity, being at no time of an aggressive or lancinating type, persisted to the end, but was never accompanied by any special tenderness on pressure or evidence of tumor.

The only fact discoverable by manipulation was what seemed to be an unusually small liver. There was no history of jaundice, and no peritoneal effusion, no addiction to the use of spirits, nothing, in short, that would seem to point to organic hepatic disease. He said that some hydrochloric acid I had given him in bitters hurt his stomach, and the same effect was produced by wine or spirits unless largely diluted, and also by solid food of any kind. There was at this time, however, no vomiting or nausea, but simply the gastric discomfort above noticed. A few days after my attention was called to the character of the alvine discharges, which were black, grumous, and very offensive, and having the appearance of blood from some point high up the intestinal canal, and from this time forth every evacuation contained blood. The debility and associated symptoms continued without much change from day to day until the 21st of May, when I was called to him in the middle of the night, and found him supported by his wife in bed upon a chamber vessel, and apparently dead; breathing had ceased, the heart had stopped, and he was cold, bathed in profuse sweat. Instantly placing him in a horizontal position, vigorous restorative measures were used with ultimate success, and shortly after regaining consciousness there was an enormous discharge from the bowels, consisting for the most part of blood. A less severe syncope from the same cause, and followed by a large evacuation of blood, occurred about a week before his death.

His condition was now one of extreme prostration and exsanguination. He took and retained food, chiefly milk, broths, and meat extracts, up to a little more than a week before death, when he had a turn of vomiting; the matters rejected containing a little blood. This attack was repeated within two or three days, and more blood was thrown up, and finally a very copious vomiting occurred on the morning of the 18th of June, when not less than a pint of blood was ejected from the stomach. Discharges of blood in small quantities still continued from the lower bowel, and on the 21st of June the patient died.

Frequent examinations of the urine developed no evidence of renal disorder, the only significant fact discovered being the presence of indican in amount sufficient to lend additional probability to the suspicion of cancer, which daily observation of the patient had suggested as one of the possible facts in the case, while the order in which the hemorrhages occurred, first from the bowel, then from the stomach, the latter not until a comparatively short time before death, gave weight to the conjecture of the existence of duodenal disease in which ulceration was a probable factor. This view of the case was concurred in by Prof. Flint, who saw the patient with me two or three days before death.

Autopsy, forty-eight hours after death. Present, Drs. Goodridge, Merritt, and Badger. Body extremely exsanguinated and emaciated, though a pretty considerable thickness of fat, say one and three-fourths inches, still remained over the abdominal walls. Upon opening the cavity of the abdomen and drawing aside the folds of the greater omentum, a small quantity of brownish chyme-like material was seen lying upon the intestinal folds, but no lymph or other inflammatory

products presented themselves. The stomach was distended, partly filled with fluid (chyme, but no blood), and somewhat dilated. Its walls were not notably thinned, and its muco glandular structure appeared normal. The pylorus and the first four inches of the duodenum were natural, excepting a slight reddening of the coats of the latter. Occupying the middle third of the duodenum was found an irregular nodulated scirrhous mass, probably two and a half inches in average diameter, having matted into its substance a portion of the pancreas, which appeared to be involved in the structural degeneration of its neighboring organ. At the proximal end of the mass, or that nearest the pylorus, was a sacculation, such as might fit half an inch of the end of the thumb, in the bottom of which was an ulcerated opening, with rounded internal margin, and having rather a linear than a circular punched aspect. This opening was about half an inch in length. The calibre of the gut involved in the diseased mass was considerably diminished. The liver was unusually small, and presented no evidence of disease, so far as could be determined by ordinary inspection. The kidneys were healthy; other organs not examined.

Cancer of the duodenum, unconnected with cancer of the stomach, is undoubtedly a very rare circumstance. Certain it is that authorities, so far as my research has extended, have very little to say on the subject. Cancer particularly of the *head* of the pancreas is a somewhat more frequent occurrence, and in the present case the question suggests itself, whether the disease of the duodenum might not be consecutive to that of the pancreas. The preference of cancer to a certain extent for glandular structures gives perhaps some little plausibility to the suggestion.

The pouch-like diverticulum referred to, in the bottom of which perforative ulceration took place, and which at first view might appear like a mechanical dilatation from the arrest of fluids from the narrowing of that part of the gut beyond it, may also be accounted for as a congenital formation, as similar sacculations are occasionally found in that portion of the intestine.

The remaining points worthy of notice are the absence of jaundice, which might have been expected from the amount of disease surrounding the ductus communis and pancreatic duct and the absence of fatty stools, which in a certain proportion of cases are associated with pancreatic disease.

## Reports of Hospitals.

### PRESBYTERIAN HOSPITAL, PHILADELPHIA, PA.

SERVICE OF H. LENOX HODGE, M.D.

(Reported by W. C. HOLLOPETER, M.D., House-Surgeon.)

#### RARE CASE OF STRANGULATED HERNIA, WITH OPERATION—RECOVERY.

Mrs. S., æt. 39, white, born in England, married, was admitted to the hospital January 5th. General health feeble. Has had seven children, and aborted two weeks before admission, at the third month. Has had an inguinal hernia for several years, which she could easily reduce herself, and for which she never used a truss.

On Wednesday, January 2d, in the morning, the

hernia came down and she was unable to return it by her ordinary methods. Failing herself, she sent for her physician, who made several attempts at reduction, while the patient was under ether, but without success. Three days after its strangulation, at the physician's suggestion, she was brought to this hospital.

Upon examination, after her admission, the pulse was 108 and feeble, the tongue coated and dry, the abdomen flat and somewhat tympanitic. The tumor was in the right inguinal region, and was sensitive to the touch, and tense. The patient had never vomited, but had been taking "sleeping powders"—morphia, the day before. She had a passage on Friday evening, natural, well formed, and brown in color—the first since Wednesday evening.

It was determined to make an exploratory incision without further delay, or attempts at taxis, and thus determine the condition of the tumor. On exposing the sac, it was found to be the size of a hickory-nut, of a dark pearly color, very narrow at the neck and adherent at the internal ring. The layer of fascia outside of the sac was adherent to the sac and to the ring. The sac evidently contained but little fluid.

The ring was nicked with the knife, but finding that the sac remained tense, and that reduction did not take place easily, the sac was opened and found to contain flocculi of lymph and a purulent fluid. The intestine was ashy colored and adherent on all sides to the neck of the sac. The tumor was carefully examined, and found to be not a knuckle of intestine, but simply the *strangulated anterior wall of the bowel*. It was thought advisable to make an attempt to return the intestine. The adhesions were broken up by means of the broad grooved director, and the neck of the sac was nicked with the knife. Upon gently handling the intestine the tissues yielded, a portion of the intestine, about the size of a pea, coming away. A broad grooved director was passed into the opening of the intestine, and no stricture was now found to remain at the neck of the sac. That portion of the intestine which was held fast to the ring by adhesions was allowed to remain in the wound. No feces escaped, but only a small amount of muco-purulent fluid. The wound was allowed to gape in the centre, and the ends brought together by means of a few sutures.

January 6th.—Tongue moist, with whitish coating. Right side of face flushed. Abdomen not so flat as before; resonant upon percussion and exceedingly sensitive to the touch. Had a passage during the night, partly formed, dark colored, and somewhat large in quantity. Temperature, 102½°; pulse, 100; respiration, 22. Vomited several times during the night. Passed her urine twice during the after-part of the night. Was very restless and constantly twitching. Drank milk and beef-tea. Wound showed slight oozing of serum, and some swelling of surrounding parts. No appearances of feces at the wound.

January 7th.—Slight moisture over skin. Flush on face gone. No movement of bowels. Abdomen considerably distended, tympanitic, and painful to the touch. Drew off her urine for the first time. Urine natural. Leucorrhœa excessive. Suppuration of wound healthy. No feces apparent at opening of bowel, and no vomiting. Some redness, pain, and swelling of abdomen, but not so much as on the day before. Removed one of the sutures. Temperature, 101½°; pulse, 98; respiration, 20.

January 8th.—Tongue nearly clean, and moist. Abdomen not so tympanitic, less redness, and parts less swollen. Wound discharged freely. Removed



the remaining sutures. Temperature,  $100\frac{1}{2}^{\circ}$ ; pulse, 88; respiration, 20.

January 11th.—Abdomen almost normal. Wound doing well. Less swelling. Discharge healthy. Wound granulating from the bottom.

January 12th.—Has had no movement of the bowels for a week. Gave an enema without any result. Wound still doing well.

January 13th.—Second enema administered, which resulted in a free evacuation of the lower bowel. Passage normal in quantity and quality.

January 15th.—Wound healing from the bottom. Abdomen natural. Temperature and pulse normal. Continued to draw urine. Gave an injection resulting in a thoroughly healthy stool.

January 30th.—Wound nearly healed. The discharges thin and small in quantity. General health good. Passes water naturally. Menstruation has begun.

February 4th.—Wound closed. General health good. Appetite excellent. Bowels act normally.

February 10th.—Discharged entirely cured.

While in the hospital the patient complained of a sickening sensation in her stomach, which she attributed to the presence of a tape-worm, several segments of which she actually passed while in bed. A short time after she left the hospital her physician succeeded in obtaining several large segments, the longest being sixty inches in length, with two other pieces nearly as long. Barring this inconvenience, she is at present enjoying unusually good health.

## Progress of Medical Science.

### NITRE-PAPER FUMIGATION AS AN EXPECTORANT.—

The value of nitre-paper fumigation as an expectorant has, according to Dr. Duckworth, been of late years too little recognized. In those cases of senile bronchitis in which prolonged fits of violent and exhausting cough are ineffectual for the clearance of the trachea and bronchial tubes, and in which the irritation thus produced is sometimes sufficient to induce asthmatic paroxysms, this treatment will be found especially applicable. Painting the paper with several coats of Friar's balsam has been found a useful addition. The coarsest brown paper procurable is recommended, the old cordage in it proving of value in giving off tarry, empyreumatic fumes, and these, together with the oxygen from the potassic nitrate, and the benzoic acid from the compound tincture of benzoin, form an excellent stimulant smoke for inhalation. A piece of the paper, not less than four or five inches square, should be used each time, being burnt behind the drawn bed-curtains. The value of warm cordial drinks is also alluded to, getting their expectorant action by stimulation of the gastric branches of the vagus.—*The Practitioner*, May, 1878.

THE PATHOLOGY OF INFLAMMATION.—A further contribution to this subject, by Dr. Senfleben, has just appeared in *Virchow's Archiv*, important, not only for the care which the investigation displays, but also for the clearness with which it corroborates the views of Cohnheim. The observations were made upon the cornea of the rabbit, and chloride of zinc was used as the cauterizing agent, the cornea being hardened in chloride of gold. The most important element in the researches is the discrimination of the processes of inflammation and reparation of the damaged tissue.

Both these go on in curious spike-like processes, but it is asserted that the distinction between them is most conclusive. The nuclei in the regenerating process are a long oval in form, much less deeply tinted than those of the wandering round cells, and constantly show three or four nucleoli. On the other hand, the nuclei of the wandering round cells are smaller and tint much more deeply. Most of the cells contain two, three, or four nuclei, lying close together, and often distending the cell. The arrangement of the cells in the two processes is equally distinctive. In the process of regeneration the nuclei are far apart, while they are much closer in the inflammatory process, and the closer the more intense it is, so that they may come to be actually in contact. The course and arrangement of the spikes of cells are also in the two cases different. Finally, another characteristic of the regenerative process is that at the extremity of the spikes, the protoplasm often exhibits fibrillation, while no such appearance is ever seen in the inflammatory process. The regenerative changes go on concentrically and uniformly in the entire periphery of the cauterized area, and by this the corneal corpuscles which have been destroyed are restored, so that the cauterized area after a certain time presents a completely normal appearance. Senfleben concludes that the whole of this reparative process may go on without the presence of wandering corpuscles. The fixed corneal corpuscles proliferate, but only produce other fixed corneal corpuscles, never round pus-like cells. The path by which the wandering cells enter is threefold; first, by the nutritive channels of the cornea; secondly, between the fibrillæ of the cornua; and thirdly, along the nerves. Their number varies with the intensity of the inflammation. In their origin the fixed corpuscles take no part. If the inflammation is intense, portions of the cornea may be entirely destroyed by them; but if it is moderate, the cells which have entered may disappear, and the remaining corneal tissue may be repaired by the fixed corpuscles. Thus the latter play a reparative, the round cells a destructive part. On the presence of the round cells turns the distinction between the two processes, but they are also accompanied by characteristic macroscopic appearances. The inflammatory process, with its abundant cell-infiltration, is indicated by opacity of the cornea; the process of reparation, with participation of the fixed corneal corpuscles, by increased and increasing transparency. There are but two conceivable sources of the round cells—the episcleral vessels and the conjunctival sac. The passage of cells from the conjunctival sac into the cornea has been rejected as untenable by almost all observers; but some observations of Senfleben go far to demonstrate that such a passage does occur under certain circumstances, and that both of these sources may under different circumstances furnish the wandering cells.—*The Lancet*, May 18, 1878.

ACHROMATOPSIA AND METALLOSCOPIA.—M. Charco has ascertained that, in hysterical patients, the application of metallic plates, which have a controlling influence on the hysterical cutaneous anesthesia, cause the troubles of retinal sensibility to disappear, but only during the application of the plates. M. Charcot also observed that metallic applications cured the achromatopsia accompanying cerebral hemianesthesia (lesion of the posterior portion of the internal capsule) as well as those dependent upon hysteria.—*La France Médicale*, April 17, 1878.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## LEGAL REGULATIONS FOR THE PRACTICE OF MEDICINE.

### V.

IN this, the concluding article of the series, we propose to confine ourselves, as far as practicable, to those regulations which are not only defined, but can be enforced by law; although we may allude to some which should be compulsory. For instance, the degree and title of Doctor of Medicine cannot rightfully be obtained in this State, except after three years' study in the office of some competent physician, attendance on two full courses of medical lectures, a satisfactory examination in all the branches of medicine, surgery, and midwifery, the possession of a good moral character, and the attainment of twenty-one years of age. Hence, the State should protect the name and title of Doctor of Medicine, and any one who falsely assumes it should be liable, not only to prosecution, but also to proper punishment.

The law of 1874, if rightfully enforced, enables us to do all this, for it declares that "every practitioner of medicine or surgery, in this State, except graduates of some chartered medical school [of this State], or licentiates of some incorporated medical society [of this State], shall be required, and are commanded, to obtain a certificate from the censors of some one of the several medical societies [which had censors entitled by law, previous to May 11, 1874, to make such examinations], which certificate shall set forth that said censors, after due examination, had found the persons interrogated fully qualified to practise all the branches of the medical art mentioned in it; and such certificate *must be recorded* in a book provided and kept for the purpose by the county clerk of each county in the State."

Hence, it is the duty of the censors to have a list of all persons so recorded, and for the president of each county medical society to prosecute all unregistered

persons who are now practising without the possession of a diploma, license, or recorded certificate. The censors of each county medical society, aforesaid, are obliged by law to notify all practitioners of medicine and surgery of the terms and requirements above mentioned, and request such persons so notified to comply with them within thirty days after such notification; and if all such persons practising medicine and surgery within this State, shall not obey said legal request or command within thirty days, they "shall thereafter be subject to all the provisions and penalties prescribed by this act [of May 11, 1874], for any violation of the same, and the president of the society making such request" [or issuing such legal command], is required at once to commence proceedings against all delinquents by lodging complaints against them in the hands of the district attorney. The only latitude allowed the censors, before handing in the names of delinquents to the presidents of the county medical societies for prosecution, is such further time as may be allowed by special arrangement with said censors, not exceeding ninety days, in addition to the previous thirty days. But, in order to obtain this stay of proceedings, the notified persons must acknowledge the summons, and apply for and obtain the law's delay. The penalty for the first offence is a fine of not less than \$50, nor more than \$200. For any subsequent offence, not less than \$100, nor more than \$500, or by imprisonment of not less than thirty days, or both by imprisonment and fine."

These provisions of the law are so clear and simple, that the wonder is that they have not been carried out in every county of the State long ago. Almost every county medical society has been grossly negligent, and that of the Medical Society of the County of New York only less so.

In this county the purchase of a business directory, the employment of a person to make personal service of the notices or summons, and the printing of a sufficient number of copies of the law, would have been all the expense that would be required. The names of all who neglected to notice the first summons should have been reported at once by the censors to the president, who should immediately have placed the list in the hands of the district attorney for prosecution.

Those, and those only, who acknowledged the first summons should have been allowed the further legal grace of ninety days. Judgment for the first and lesser penalty should have been entered up against the first delinquents, and an immediate second summons should have issued, and the second and greater penalty enforced against the neglectful ones.

The only hard work of the censors would have commenced when applicants for examinations and certificates commenced to apply. But, according to the laws of the State of New York applying to the medical societies of the State and counties of New York, no license, and doubtless no certificate for medical



practice can be issued to any person, except those of good moral character, and who will solemnly declare that he or she will honestly, virtuously, and chaste conduct themselves in the practice of physic and surgery. This might reduce the number of applicants.

From May 6, 1844, to May 11, 1874, there was no necessity for medical education in the State of New York, except for those who wished to obtain a degree of Doctor of Medicine, or a license from the State or some county medical society, and any person was allowed to practise physic and surgery without a diploma or license, being only responsible for gross ignorance, immoral conduct, malpractice, and prescribing while in a state of intoxication.

The ordinary laws of the State, and those applying to chartered medical societies and colleges, have always required some evidence of moral character from all practitioners of medicine and surgery, and the law of 1874 cannot and should not dispense with it. The by-laws of the medical societies of the State and counties of New York also require of the medical man that his character should be that of a gentleman, exempt from gross vulgarity of manners, habitual drunkenness, swearing, gambling, and every species of debauchery. He is also disbarred for felony, misdemeanor, and if he has incurred penalties for heinous crimes. A physician in indigent circumstances is not permitted to embrace or exercise any business which will degrade the character of his profession; such as keeping a tavern, lottery office, gambling-, victualling-, or play-house. Any low trade or servile mercenary occupation is incompatible with the dignity and independence of medical avocations. In such extreme and derogatory situations a physician forfeits the privileges of his profession.

The law of 1874 also reaches those apothecaries who make a practice of prescribing for almost all the minor and some greater ailments. The only restriction upon this liberty which can be morally, but not legally, urged in a democratic and republican country, should be inability to pay a physician's fees. Copies of the law of 1874 should be served upon all apothecaries, and those who are determined to practice medicine should be obliged to take out a certificate of qualification from the censors. But no certificate should be issued to apothecaries who deal in patent proprietary medicines, secret and quack medicines or nostrums, for this is the great disqualification which prevents physicians who keep drug-stores and apothecary shops from obtaining membership in county medical societies.

The vendors of quack medicines and nostrums who assume the title of doctor can and should be prosecuted and forced to drop the title, at least; and it would seem that those unlicensed persons who advertise so widely in the *Herald* and *Staats-Zeitung* can most easily be dealt with, for their offences are patent, and widely and openly published.

The great difficulties in the way of enforcing the law of 1874 are the timidity of the censors, the belief of the lawyers and juries and judges in the idea that any one has a right to practise medicine, and the unwillingness of all to take any extra amount of trouble.

#### DIPHTHERIA AND SEWER-GAS.

DR. W. SNIVELY, physician to the Pittsburg (Pa.) Board of Health, lately read a paper on the cause of diphtheria in an outbreak of that disease in Pittsburg during the year 1877. Out of 856 cases, the total number reported, there were 366 deaths. Of these, 457, with 141 deaths, occurred in a particular district of the city in which the sewerage was almost criminally defective—i. e., there was insufficient grade, inadequate diameter of the main at certain points, absence of traps at the street drops, private connection-points and main termini, while the man-holes were tightly covered and there was an utter lack of ventilation. Slaughter-houses near the termini drained their offal and refuse through connections having no traps; and one of the latter emptied directly into an untrapped drop. Previous to last July, diphtheria had prevailed in only an ordinary number of cases. The epidemic set in during July, and raged about five months. During most of this period one main was choked for a distance exceeding 2,000 feet. Two heavy rainfalls occurred in July, two in August. Dr. S. infers from these data that sewer-gas emanations, propagating the disease in the poisoned human system, was the cause of that epidemic. He explains that heavy rains caused choking of the mains, and expulsion of stagnant sewer-gas into the dwellings through the private connection-pipes. He very properly insists that ventilation of the mains is of the greatest importance in preventing accumulation of sewer-gas, and its consequences, no matter how well constructed the sewer otherwise may be. Undoubtedly thorough main ventilation is of primary importance. But 'trapping' and ventilation of the *connection-pipes* are of equal moment, when there is danger from heavy rains forcing the gas, which may have been generated, into the dwelling. Sewerage is a subject which has been sadly neglected in practice, but we hope that later-day experiences, and the valuable advice of our sanitary authorities may soon bring forth ripe fruit and thus add another triumph to those of preventive medicine.

#### THE NOISY ELEVATED RAILWAY.

THERE is hardly a possibility of the existence of a convenience without a corresponding inconvenience, and generally the sweeter the rose the sharper the thorn. With the progress of civilization and the increased luxuries of cities, we have the inevitable association of noise, bustle, and all the other accessories of nervous strain. Perhaps never before was the in-

convenience of the latter more forcibly or suddenly presented to the people than in the running of the steam-cars upon the elevated railroad in Sixth avenue. In fact, the matter is such a serious one, that it is arousing the indignation of the people along the entire route, and there is such a demand for the lessening of the racket that there is a likelihood of a speedy mitigation of the evil. Partly from a respect for public opinion, but mainly for policy's sake, the officers of the road are instituting experiments in places by placing felt and other substances under and alongside of the rails, with the view of lessening the vibration of the roadway and by "petticoating" the running-gear to deaden its sound. So far, some success has rewarded their efforts, but, in the face of a disappointment that better results have not been obtained, it is gratifying to know that the directors are willing to continue their good work, and use their best efforts to secure the desirable end.

#### THE CARE OF INFANTS DURING WARM WEATHER.

THE publication by the Health Board of the circular in relation to the care and feeding of infants during the hot weather is a timely reminder of the necessity of the measure, and an illustration of the real utility of a centralized authority on matters of hygiene. It is a fortunate circumstance that the Board, composed as it is of gentlemen of high standing in the profession, is so well calculated to minister to the wants of the community, and is so well entitled to its respect and confidence. There is no doubt that the widespread circulation of the simple rules will be the means of saving hundreds of lives, which would otherwise be sacrificed to ignorance. We do not recollect having seen any instructions of their kind better calculated to meet the requirements of the case. A good purpose would be served, if all the daily papers would republish the document, and place the excellent advice within reach of every mother in the land.

#### HOW THE HUNTER'S POINT NUISANCE IS BEING ABATED.

Now it appears that the proprietor of one of the stench-breeding establishments at Hunter's Point, who has recently broken his promise in regard to the manufacture of sludge acid, pleads, on a second indictment, that there was a significant misunderstanding in his mind as to the exact bargain he had made; that, in fact, he did "not pledge himself to abstain entirely from the use of sludge acid." To prove that he has made some progress in the right direction, he now guarantees to remove his establishment, and cease, entirely and absolutely, the manufacture of the fertilizers in Newtown Creek. In view of this remarkable concession to justice, the Court has determined to suspend judgment for a month, and give this bold offender another chance to keep his promise. We wonder if the Health Board will be blamed for this at the next session of the grand jury.

## Reviews and Notices of Books.

#### TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, 1877.

THE annual volume containing the proceedings of this Society is again to hand, and will be welcomed by the profession. The communications comprise over thirty interesting papers, many of which emanate from members justly regarded as authorities upon the subjects presented. As many of our readers may desire to be reminded respecting the subjects treated and the names of the contributors, a brief notice of the volume will be made for that purpose. Taking the papers in the order presented, we find that Dr. R. W. Pease draws attention to his successful treatment of strictures of the urethra by incision, in preference to dilatation, and includes a tabulated statement of forty-five cases under his treatment. Two papers on the operations for closure of the hard and soft palate are recorded by Dr. N. Van Derveer, of Albany, and Dr. D. H. Goodwillie, of New York city, illustrated by wood-cuts. Dr. H. T. Hanks offers a tabulated table of cases of ante-flexion with relief of dysmenorrhœa. Dr. Hanks claims many advantages for his method, which he describes as simple and safe, and one that can be performed by any intelligent physician, even though he may not claim to be a specialist. Dr. John Ball follows with a kindred subject, advocating forcible and rapid dilatation of the cervix uteri for the relief of stricture and other uterine troubles. Dr. Thomas R. Pooley reports a case of irido-choroiditis in the puerperal state. Dr. S. L. Parmelee describes a case of punctured wound of right side, causing injury to diaphragm, lung, and liver. Dr. J. B. Graves contributes a paper "on a Fracture of the Base of the Skull," which was followed by a discussion, that will be read with interest. Dr. P. R. H. Sawyer also read a paper on this subject. Dr. Austin Flint placed before the Society his views on acute pneumonia, which he regards as essentially a fever, and not purely a local inflammation. He urged this doctrine from a pathological standpoint, as important in this respect, that it leads the practitioner to regard the rational object of treatment to be the essential disease, that is, the fever, rather than its local manifestations; in this way pathology is brought into unison with therapeutics based on clinical experience. This important paper drew forth an animated discussion from the members, one of whom expressed the opinion that the doctrine advanced by Dr. Flint would meet with the almost universal approval of the profession. Dr. M. P. Jacobi gave a history of two cases of convulsive disease without convulsions. Dr. Ed. H. Parker reviewed the question of heredity as an element in the production of crime and pauperism. "Some Practical Points in the Treatment of Stone in the Bladder," with analysis of eight new cases, was presented by Dr. J. W. S. Gouley. Dr. George Bayles, on the use of amyl nitrite in pertussis, is followed by Dr. C. H. Giberson, on a fatal case of scarlatina treated by cold baths. Dr. Alexander Hutchins draws attention to the drug jaborandi, and its power to produce diaphoresis, when desired, in any form of malady. A means of rendering vaginal injections safe and efficient, is described by Dr. Frank P. Foster. Dr. F. Hyde has a paper on some of the morbid conditions of the prostate glands and their treatment, and Dr. Norman L. Snow describes a case of pseud-membranous laryngitis in a child. Dr. Lewis



Post calls attention to his successful treatment of gangrenous sores by tar fumigations. In this case the sores were very persistent, and had defied the usual modes of treatment—but at once yielded to the influence of the fumigation, and at length healed up. In a note to this paper, Dr. Post stated that he was suffering from ill-health, caused by a sore just below the glottis, and he attributed this laryngeal trouble to his inhaling the poisonous emanations from the gangrenous wounds referred to in his paper. Dr. Post had a strong suspicion that such was the case, as he was at a loss to find any other cause to which to attribute the trouble. Dr. C. G. Pomeroy speaks favorably of the use of hydro-chlorate of ammonia (ammonia murias); he describes its therapeutic properties, and suggests its use in a wide range of cases.

The remaining papers are as follows: Dr. H. G. Piffard, On the Nature and Treatment of Lupus; Dr. Ira F. Hart, On the Hereditary Transmission of Disease; Dr. James C. Hutchinson, On Hæmophilia; Dr. I. Parsons, Experience in Arm and Shoulder Presentations; Dr. G. Burr, Wounds of the Knee-joint; Dr. H. N. Eastman, On the Action of Mercury; Dr. F. T. McFarland, On Opium Inebriety; Dr. W. H. Bailey, on Fatty Embolism; Dr. A. O. Kellogg, On Melancholias and Suicides. With such a varied list of subjects, the fault cannot lie with the matter; there is no necessity for speaking well of the work; in fact, it is one of the most interesting volumes that have been issued for many a year.

#### THIRTY-SECOND ANNUAL MEETING OF THE OHIO MEDICAL SOCIETY. 1877.

ASIDE from routine matter of purely local interest, Dr. Thomas W. Gordon's paper on the "Antipyretic Powers of Sulphate of Quinine" contains some observations that practitioners at large will find it worth the while to glance at, particularly as the discussion turns upon the advisability of administering large doses of the drug, and as the experience of the ablest men in the profession, South and West, is cited in justification of the practice. That such had been the practice of surgeons in the service of the United States, even before the example of Vogt, of Germany, could be quoted in its favor, is a fact familiar to those who have taken the trouble to look into the subject; but the experience of so many members of the profession in the ordinary routine of civilian medical work has not, so far as our recollection serves, been hitherto rendered accessible to the average practitioner. Dr. Tilden, of Sandusky, has given as high as 40. Dr. Holmes, of Florida, 80, and Dr. Suppington, of Memphis, Tenn., 80 grains at a dose, without producing any untoward result. Dr. Kingstone, of Missouri, is reported as having administered 200 grains in twenty-four hours, in a case of cerebro-spinal meningitis; the patient recovered. From 30 to 60 grains at a dose has frequently been given in the army, in cases of pernicious intermittent fever. Drs. S. S. Gray, S. F. Forbes, S. C. Ayres, J. H. Pooley, K. C. Scott, and C. S. Muscroft have papers on "Milk Sickness," "Manipulations in the Reduction of Dislocations," "Paracentesis of the Cornea," "Perityphlitic Abscess," "Purulent Ophthalmia" and the "Prevention of the Spread of Syphilis."

A PRACTICAL TREATISE ON AURAL SURGERY. By H. MACNAUGHTON JONES, M.D., of Cork, Ireland. 167 pages, 12mo.

This short treatise is a fair representative of a class of books of which, unfortunately, we nowadays see only too many. It commends itself to favorable criticism simply and solely because it advocates no harmful or

rash measures. One seeks in vain, however, for something new or specially characteristic of the writer's own experience. If our knowledge in this, as in other branches of medical science, is to be materially advanced, it will certainly not be by the publication of such works as this.

JAHRESBERICHT ÜBER DIE WIRKSAMKEIT DER (FRÜHER EVERS'SCHEN) Augenklinik im Jahre 1877; von Dr. H. SCHOELER, Doc. a. d. Univ. zu Berlin. Berlin, 1878. H. Peters. 8vo. 58 pp.

AFTER giving a table of the operations performed in the institution, Dr. Schoeler presents the history of a case in which, for the first time, the cornea of a dog was transplanted into a human eye successfully. After the insertion of the cornea into its new position, the wound was entirely covered with a flap of conjunctiva. Six weeks later a peritomy was performed, so as to cause the disappearance of this artificial pannus. The result was so far successful that the patient was enabled to recognize the movement of the hand at six inches. Several cases, showing the advantages of conjunctival flaps in the treatment of wounds of the sclerotic are narrated. In conclusion, Dr. S. gives very extensive details of a new operation, neurotomy optico-ciliaris, devised by him for obviating the danger of sympathetic inflammation. This operation is intended to replace enucleation in many cases. He has performed the operation ten times, and in only one of these, notwithstanding the complete anæsthesia of the cornea, was there xerotic keratitis. In this case the bulb was not covered by the lids for a long time, in consequence of an effusion of blood behind it.

#### TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA. TWENTY-EIGHTH SESSION, 1877.

SAVING the fact that our medical *confrères* of the fervid latitudes are a little given to orations and to the construction of rhetorical periods, this 198-page pamphlet of the work of the profession in Georgia contains an amount of original matter, that puts it in favorable comparison with similar reports recently noticed in these columns. But those who turn over its pages expecting to find the promised paper of Dr. J. C. Le Hardy, "On the History, Causes, Nature, Pathology, and Treatment of Yellow Fever," considering exclusively the epidemic of 1876 in Savannah, will be grievously disappointed, the dissertation having been deferred until next year—a thing to be the more regretted on account of some intimations in scientific journals that Dr. Le Hardy would demonstrate the inutility of quarantine, besides presenting a serried host of inductions as to the origin of the disease at its various southern centres of activity. The articles of practical interest are so numerous, that it is not easy to discriminate between them. Dr. A. W. Calloun has a disquisition on "Defects of Hearing and other Evils as the Results of Enlarged or Hypertrophied Tonsils," which, as both the symptomatology and the mode of operation are very fully and simply described, is a real contribution to medical literature, and one that should be carefully read by young practitioners. Dr. Calloun discountenances and discards all such complicated instruments as tonsillotomes, on account of the great trouble and inconvenience of applying them, and sketches an operation with a pair of double-hooked forceps and the common long-handled, probe-pointed, curved bistoury, that old practitioners even will find worth perusing. Dr. T. F. Walker describes the case of a woman, æt. forty years, in which a transverse rupture of the womb occurred through protracted labor; the infant, which had been dead

for some days, made its exit through the lacerated opening. There was no post partum hemorrhage of any consequence, and the patient rallied readily from the anæsthetic, though she was afterwards stupid for several hours in consequence of the exhaustion. She was put upon a supporting treatment of brandy, quinine, and opium, with good nutriment, and survived seventy hours without any suffering. There was no autopsy. Dr. E. L. Burdwell describes an operation for occlusion of the vagina, which proved successful. Dr. C. B. Leitner has a paper on the "Treatment of Carbuncle," in which he reports an application of the cupping-glass in several cases, and a subsequent washing with solution of carbolic acid, one part acid to eight parts water, as having been followed by excellent results. He exhausts the air until all the matter in the cribriform cells has been drawn into the glass, which in one case under treatment amounted to four ounces. The internal remedies employed in conjunction with cupping, were iodide of potassium, quinine, and iron. Dr. Johnson has a paper on "Stricture of the Urethra," in which, after discussing the Otis and Maisonneuve urethrotomes, Thompson's divulsor, and other ingenious contrivances, he decides in favor of Syme's operation (external urethrotomy) in old and neglected cases. His experience has been that an incision through the perineum, in the mesial line, just in front of the prostate gland, is less harmful than the cut usually made in the lateral operation for stone in the bladder. Dr. D. W. Hammond relates an extraordinary case of a boy, aged five years, who had been twice operated upon for stone in the bladder within a few months. The first stone weighed only thirty-two grains, the second eighty five grains; both were of the oxalate of lime variety. Another article of interest to surgeons, reports the successful transplantation of a rabbit's conjunctiva to the human eye for the relief of symblepharon. The operation was performed by Dr. A. W. Calhoun, of Atlanta, who also reports ninety-six cataract operations, with only six failures—from iritis, irido-cyclitis, and corneal troubles, of course. Dr. J. G. Westmoreland, of Atlanta, in the course of a valuable paper on the germ-theory of disease ("Progress in Medicine," pp. 78-86), claims for Dr. Salisbury, an American investigator, the origination of that theory.

place, the force of the impact was, in a great measure, broken before it reached the radius. In the second place, the lower end of the radius was specially fitted for receiving and breaking shock, when applied to the extremity in the direction of the long axis of the bone.



FIG. 1.

The first effect of a fall upon the palm of the hand was forced extension of the hand, and that movement was performed mainly at the *carpo-radial articulation*. Dr. Pilcher then exhibited a longitudinal section through the wrist-joint from the middle of the radius to the middle of the third metacarpal bone. (See Fig. 1.) The motion being mainly at the carporadial articulation, the bones were placed in the relation of two levers, A and B, which were held together by bands, C and D. (See Fig. 2.) When B was carried backwards forcibly—that is, forcible extension of the hand made—the band D was made tense. The opposite border of the lever having slipped forward as far as the band C would permit, abutted against the lower surface of A, which became a fulcrum for the farther action of the lever. If then the backward force was continued, either the band D must rupture or the lever be fractured. The band continuing to sustain the strain, the lever gave way and fracture occurred necessarily just above that portion controlled by the hand. (See Fig. 3.) The strain upon the lever was nearly transverse to its long axis, and it was by that direction that

the line of fracture was determined. A fracture had been produced by definite forces, at a definite point, and in a definite direction. Such was believed to be the exact condition present in the production of

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, May 16, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### ON INJURIES OF THE WRIST-JOINT, PARTICULARLY COLLES' FRACTURE—WITH DEMONSTRATIONS.

DR. LEWIS S. PILCHER, of Brooklyn, upon invitation, read a paper upon the above subject, in which he brought forward a new explanation of the manner in which forces operate in the production of the fracture at the lower extremity of the radius, commonly known as Colles' fracture.

The theory usually adduced in explanation of the injury was that the radius, being caught between two counter-forces, gave way at the weakest point, about one-half inch from its lower extremity.

Dr. Pilcher, however, thought that the facts of the case did not sustain that theory. For, in the first

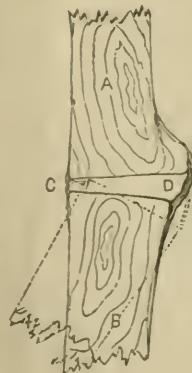


FIG. 2.

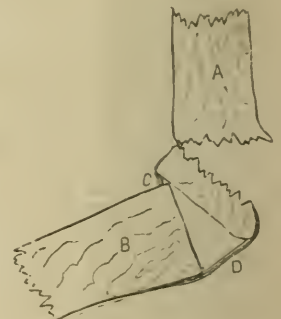


FIG. 3.

Colles' fracture. The combination of conditions was such as to make the bone weaker than the ligament, the very arrangement of its expanded extremity rendered it less able to resist a force of avulsion, and fracture accordingly took place. Dr. Pilcher then demonstrated his theory upon a hand and forearm removed from the cadaver. The hand was held



firmly upon the table and the forearm bent strongly backward until the structures gave way. Dissection was at once made, and it was found that the expected transverse fracture had not been produced, but a fracture had occurred. Several specimens were exhibited in which transverse fracture at the lower end of the radius within three-fourths of an inch of its extremity had been produced by precisely the same manipulation.

#### A SECOND FORCE.

In all the cases which presented the ordinary appearances of Colles' fracture, a second force other than that of extension was present, and was an important factor in the production of the forward and downward impulse of the radius, namely, a force compounded of the weight of the body and the velocity of the fall which had been sustained. That force was first received upon the anterior ligament and conveyed by it into a force of avulsion. If it was entirely expended there, sprain, or a sprain with transverse fissure of the radius, resulted. That force was imitated by striking with a mallet upon the sawn extremity of the humerus still articulated with the bones of the forearm. The experiment was not altogether successful, but in specimens produced in the same manner were exhibited the conditions which obtained in the more severe forms of this injury. A new point of motion was established, and the lower fragment of the radius virtually became a part of the carpus; the upper fragment driven downward and forward was entangled in the lower near its palmar margin. (See Fig. 5.)

#### DORSAL PERIOSTEAL PSEUDO-LIGAMENT.

Examination of the periosteum, reinforced by aponeurotic fibres, showed that it was not torn through, but simply stripped up from the back of the upper fragment according to the amount of displacement of the lower fragment (See Fig. 4).



FIG. 4.

The recognition of that band, firmly grasping the lower fragment, Dr. Pileher regarded as very important, for he regarded it as the key which unlocked the chief difficulties that surrounded the injury. In it rested the explanation of the absence of crepitus and the immobility so characteristic of Colles' fracture. The explanation of the tendency to immediate return of the deformity, the powerful extension necessary for reduction, and the great difficulty in retention mentioned by Cooper and Colles, were by its recognition explained. The theory of penetration, impaction, deformity from muscular action, and the power of an ulnar styloid process could all be explained by the agency of this untorn periosteal aponeurosis. The force having expended itself, entirely new forces began to operate, and finally the condition represented in Fig. 5 was produced.

Powerful extension and strong direct pressure were necessary in order to bring the lower fragment into place.

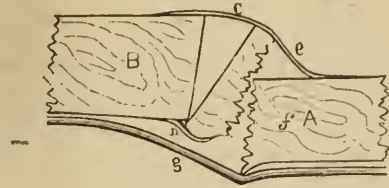


FIG. 5.—*c*, Dorsal periosteal pseudo-ligament. *f*, Point of entanglement. *g*, Flexor tendons.

#### RELATION OF THE ULNA TO THE RADIUS IN COLLES' FRACTURE.

The point of special interest in that portion of the paper was the explanation of the immobility of the ulna while the lower radial fragment remained unreduced. The chief cause of the phenomena was a strong OBLIQUE FASCICULUS OF THE ANTERIOR LIGAMENT, which extended from the cuneiform bone to the anterior border of the styloid process of the ulna. By the backward displacement of the carpus and the attached radial fragment, that fasciculus was put upon the stretch, limiting all rotation until relaxed. The action of this fasciculus was shown upon specimens.

To the casual glance there was apparent

#### DISLOCATION OF THE TENDON OF THE EXTENSOR CARPI ULNARIS,

but closer scrutiny showed that it was in its proper sheath and in its proper relation to the ulna. In concluding a description of the peculiar lesions presented by fracture of the radius near the wrist-joint, Dr. Pileher directed special attention—

1. To the important relations which the untorn aponeurotic dorsal periosteal strip, and
2. The relations and actions which the inner oblique fasciculus of the anterior ligament, sustained to the peculiar symptoms presented by this injury. Those relations, hitherto, had not been described.

#### REDUCTION OF THE FRACTURE.

Reduction of the fracture was effected by simply bending the hand and wrist backward, making slight extension in the line of the forearm, and making moderate pressure upon the dorsum of the lower fragment.

#### TREATMENT.

The fracture was both preceded and followed by a severe sprain. The sum of the injuries presented a sprain of the most aggravated description. The fracture never entailed permanent disability.

The sprain was first, both in order of time and importance, in its demands upon the attention of the surgeon.

After the reduction of the fracture, every support necessary for its satisfactory retention was afforded by the structures which surrounded it, with the simple addition of an adhesive strap snugly encircling the wrist so as to firmly grasp the injured structures.

No splint of any kind was useful in the treatment of this fracture.

Dislocation of the ulna, more or less complete, did not alter the indications for treatment, nor demand any material modification of the method to be employed.

Reference was made to forty-nine cases of Colles' fracture and forty cases of severe sprain of the wrist,

which had been successfully treated in accordance with the principles enunciated in the paper.

The paper being before the Academy for discussion, DR. FRANK H. HAMILTON remarked that he had listened to Dr. Pilcher's argument and witnessed his demonstration with the most profound interest. He was proud to know that it was an American surgeon who had made the observations, and felt highly honored that the New York Academy of Medicine was among the first medical societies to which those observations had been unfolded. Among the earliest writers upon the subject was Colles, yet Colles never made a dissection of a case of this fracture. As a consequence, he had entirely displaced the seat of fracture. The observations which had been made, from the time that Colles wrote down to the present, had, almost without exception, been upon old cases and museum specimens. Dr. Moore, of Rochester, had, somewhat recently, made two or four dissections which had brought to light a peculiar observation—namely, that in cases of Colles' fracture the tendon of the extensor carpi ulnaris was dislocated and the styloid process found entangled in the annular ligament. There was no doubt but that Dr. Moore saw just what he said he saw, but the inference which he made that such was the condition in typical cases of Colles' fracture, Dr. Hamilton believed to be incorrect. In order that our observations might be valuable, a certain class of cases, which had incidentally been described as cases of Colles' fracture, must be excluded; that is, those cases in which the person fell from a great height and died within a day or two because of the injury then received. Such cases should not be regarded as typical examples of Colles' fracture. For what might occur under such circumstances it was difficult to say. There might be a comminution of the bones and a general laceration of all the soft parts surrounding the joint. Nor were we to regard *fissure* of the lower end of the radius, so well described by Bigelow, of Boston, as an example of Colles' fracture. The typical fracture at the lower end of the radius, commonly known by the name of Colles' fracture, was the result of slight falls, such as slipping upon the sidewalk, etc., and as the person put out the hand to save himself he received a fracture, almost always transverse, and situated within one-half or three-fourths of an inch of the lower extremity of the bone. The fact that fracture of the radius at its lower end could be produced in the manner demonstrated by Dr. Pilcher, had been recognized by Bouchet, Nélaton, and Voillemier, but they had stopped at the making of the observation in connection with efforts at producing dislocation. Malgaigne had made the remark that *perhaps* the fracture occurred in this manner oftener than was supposed, but it had remained for Dr. Pilcher to *demonstrate* that it *did* occur oftener than we supposed. Dr. Hamilton, in conjunction with Dr. Stephen Smith, had performed the same experiments made by Dr. Pilcher, with the variation that the elbow was placed upon the table and the hand forcibly extended. In that manner a much less force was required to produce the fracture than seemed necessary when the hand was strapped down and the forearm forcibly bent upon it.

Dr. Hamilton regarded the oblique fasciculus of the anterior ligament as a very important anatomical element, and proposed for it the name of Pilcher's ligament, inasmuch as Dr. Pilcher was the first to demonstrate its importance.

It was important because it explained the peculiar disposition of the lower fragments.

The third point of importance in Dr. Pilcher's paper

was the demonstration that in a *certain proportion of cases*, when this fracture was produced, the periosteum posteriorly was elevated, but not torn across so as to leave the fragment free.

If attempt, therefore, was made to reduce the fracture without manipulation, resistance was offered by that tense periosteal strip, strengthened as it was by aponeurotic fibres, and reduction might be impossible.

Dr. Hamilton was not willing to say that he should never use splints in the treatment of this fracture, notwithstanding the absence of marked tendency to displacement after the fragment had been properly reduced.

He thought there was some danger in teaching that doctrine. But the important fact was that reliance should not be placed upon any particular form of splint. The main point was whether or not the fracture was reduced. If properly reduced, the splint should be soft and comfortable, and should be bound on only with very moderate tightness. It was not necessary that the splint should be curved, and pressure should *never* be made in any form in front of the lower fragment. It was possible that the splint could be dispensed with at the end of two weeks; at all events, it should be removed at the end of one week and free passive motion made.

DR. A. C. POST suggested that the fracture should be called Pilcher's fracture instead of Colles' fracture, because Colles made such a grave mistake with reference to the seat of fracture in this particular class of cases, and Dr. Pilcher had demonstrated its occurrence with such satisfaction. Dr. Post directed attention to one feature of the deformity in cases of the "silver-fork" fracture, or Pilcher's fracture, and it was that the *entire hand* was carried to the radial side, thus giving unusual prominence to the lower portion of the ulna. With reference to treatment, the most important point was to make early and thorough reduction. For the most part, that could be readily accomplished by means of extension combined with manipulation. He did not agree with Dr. Pilcher with reference to the inexpediency of using splints, but believed it to be important to support the limb so as to secure good position and perfect rest. At the same time, he believed that the apparatus, whatever it might be, that was employed, should be frequently removed, and bathing, friction, and passive motion applied.

DR. WEISSE presented a specimen illustrating the fracture described by Barton, and known as Barton's fracture.

DR. WILLARD PARKER remarked that he had listened with profound interest, and had been very much instructed by Dr. Pilcher's paper and his demonstration. He, however, was not yet ready to accept the view entertained by Dr. Pilcher, that these cases could be safely left to themselves after complete reduction had been effected. He believed that something more in the way of treatment was necessary than had been recommended. In olden times he used to teach that there were *three* indications to be fulfilled: 1. To put the parts in place; 2. To retain them in place; and 3. To guard against inflammation. The first implied complete, early, and thorough reduction of the fracture. The second implied the use of some form of retentive apparatus. The third, the use of such measures as each case might demand. Dr. Parker believed in resorting early to passive motion.

DR. SATTERTHWAITE contributed to the surgical pathology of the fracture under consideration by giving an analysis of twelve specimens, which he had examined in the New York Hospital Museum.



There were nine instances of *transverse* fracture. There were eight instances of *comminuted* fracture, the number of pieces varying from three to six. There were five cases of *fissure* of the radius. There were three cases of *impacted* fracture.

The conclusion reached from the analysis was: 1. That in a majority of these cases the fracture was *transverse*, and occurred within half an inch, often within three-eighths of an inch, of the articular surface of the radius; and 2. That *comminuted* fracture was of nearly as frequent occurrence as the transverse.

With reference to dislocation of the tendon of the extensor carpi ulnaris, Dr. Satterthwaite had had an opportunity of making one post-mortem in which dislocation of the tendon was present. In reply to a question by Dr. Hamilton, Dr. Satterthwaite stated that the patient died in consequence of other injuries produced by the accident. Dr. Satterthwaite, however, was quite positive that he had seen several cases in which dislocation of the tendon was present during life and was diagnosed, and yet the fracture had not been produced by unusual violence. With reference to cases of impaction, of which there were three in the twelve specimens examined, he thought the proper method of treatment was to employ an anæsthetic, separate the parts, and then reduce the fracture. Having effected reduction, almost any splint might be employed, but his preference was for the antero-posterior splint. He then stated that, without being willing to deny that a large number of fractures at the wrist-joint might be produced in the way that Dr. Pilcher described, calling, in such cases, for very simple treatment, still the lesson of the specimens at the N. Y. Hospital taught that other conditions in certain cases might also be present, and that we should have the possibility of their occurrence in mind when we are called upon to treat such fractures. He therefore very naturally regarded some form of retentive apparatus as a very important item in treatment.

Dr. PILCHER, in closing the discussion, remarked that he did not wish to be understood as claiming any originality in the production of the fracture by forcible extension, but the *particular manner* in which the force operated to produce it, the *rationale* of the production of the injury, he had not found explained by any authors whose writings he had ever had the opportunity of reading. He thought the prevalent impression was that the bone was caught between two forces and yielded at the weakest point.

With reference to impaction he could conceive that it was of frequent occurrence in cases in which the violence was extreme, and he also believed it to be a legitimate conclusion that a preponderance of such specimens was found in hospital museums. The cases of severe injury, such as those in which comminution was likely to be present, very commonly found their way into hospitals.

#### DEATHS FROM STARVATION AND WANT IN ENGLAND.

—A return has been made to Parliament of all cases upon which, during the year 1877, a coroner's jury returned a verdict of death by starvation or death accelerated by privation. From this we learn that there were seventy-one such deaths within the year, of which twenty-two were children of two years of age and under. Of the remaining thirty-seven cases, one was ninety years of age, and twelve others were sixty or more. In comparatively few cases was want or privation the sole or chief cause of death, these being generally mentioned (except in the case of infants) as tending to cause the fatal termination of disease.

## Correspondence.

### A PRACTICAL SUGGESTION.

#### HOW TO MAKE "CRINOLINE" BANDAGES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The "plaster-of-Paris" or Pirogoff's bandage has lately become, through the great and beneficent advance in the treatment of "Pott's disease of the spine," one of the most important items in the *armamentarium* of the surgeon. It seems to be settled that "cross-bar wiggins" or "crinoline" is, on the whole, best fitted for this bandage. If there is any question, it is between this and similarly woven fabrics which all present an objection, viz.: that it is impossible to tear them into strips. So far as I know, these materials have been rendered available for use by cutting with scissors. This is a very tedious and laborious process, as any one can easily ascertain by trying to make a single long bandage in this way. I have contrived a manner of obviating this difficulty, which has been found so very satisfactory in practice, that I venture to offer it to the notice of your readers. I have been very long in the habit of using long bandages of "pure rubber," have lately offered to the profession two papers on that method of practice,\* and am very happy to be frequently informed of its very wide acceptance and success. These bandages have to be cut with great smoothness and exactness, for on this perfectly even cutting depends their utility and durability. The rubber bandages are cut by rolling a long sheet of pure rubber over a cylinder or "drum." To this, while revolving with great rapidity, a perfectly keen knife (kept constantly wet) is applied, and in this way the work is very admirably accomplished.

While trying to make a lot of bandages from a piece of crinoline, it occurred to me that, possibly, in a similar way, this refractory fabric might be managed. I doubled about one inch of an end of the piece, tacked this doubled portion to a common curtain roller (about forty inches in length), placing the tacks just one inch apart. The cloth was then snugly and evenly rolled around the wooden cylinder. The position of the tacks was easily indicated by pencil marks on the outside of the roll. The object of making such marks being to avoid injury to the tool used afterwards. Around the roll were placed, at intervals of two or three inches from each other, according to the width of the required bandages, moderately strong rubber bands, such as are in common use for filing letters, etc. The whole was now ready for experiment, and was carried to the shop of a turner in the neighborhood, who was asked to mount it on his lathe and, if possible, cut the cloth into bandages of a proper width. The turner ridiculed the idea, and said that the cloth would simply be torn into rags. On my representing to him, however, that in that event a slight pecuniary loss to myself would be the extent of damage incurred, he placed my roll on the lathe. The rapid revolution of the curtain rollers in a few seconds tightened the roll of cloth so that it became almost as hard as wood. The tool, a keen thin knife, was applied in the usual way, and to the great surprise of the turner and my own satisfaction, the crinoline was,

\* On Surgical Uses, other than Haemostatic, of the Strong Elastic Bandage," in Transactions of the American Medical Association for 1877. Published also in pamphlet form by James Campbell, Boston. Paper on same subject in Chicago Medical Journal and Examiner for November, 1877.

in a very few minutes, converted into some fifteen or sixteen bandages of various widths, twenty-four yards in length and of the most perfect symmetry. I have used several of the bandages in practice, and find them in every way all that can be desired. Nothing can be easier than this way of cutting bandages, and there is no reason why they should not be sold at a price very little beyond that of the uncut cloth. Any turner would be glad to cut a single roll for twenty-five cents, and, doubtless, if a number of rolls were to be cut, for considerably less. My directions were to cut down to the wood, so that the surgeon has nothing to do but to saw off each roll of bandage as he wants it. These single bandages, each with its wooden core, can be most easily unrolled into either of the little machines contrived for "filling" the meshes of the cloth with plaster-of-Paris.

I hope that I have given a clear idea of my contrivance. If I have not, I am in fault, for nothing can possibly be easier or more simple. When Mawworm (in "The Hypocrite") made his famous sermon, he warned his hearers that, on the last day, they would be disappointed in their expectation of getting to heaven by hanging to his coat-tails, for on that day he proposed to wear a "spencer." I have no hope of reaching the dubious beatitudes of professional fame by attaching myself, in any way, to "Sayre's jacket." With no such hope do I send you these hastily written lines, but with a single and sincere desire that a suggestion, the practicability and usefulness of which I have fully verified, may be adopted, and so make a most admirable surgical apparatus somewhat more easy of application. HENRY A. MARTIN, M.D.

27 DUDLEY ST., BOSTON, July 4, 1878.

P. S.—In looking over the MS. I find that I have not explained the use of the rubber rings placed around the roll of crinoline. They serve, perfectly, to keep each bandage, as it is cut, from unrolling or becoming loose. I mentioned the contrivance described above to Messrs. Codman & Shurtleff, and they have since sent me two or three bandages made according to my directions. They are even neater and more perfect than those made for myself. I have no doubt that any physician, who chooses to take the trouble, can get them made as perfectly at any well-appointed turner's shop. H. A. M.

## New Instruments.

### DISCOTOME.

By B. A. WATSON, M.D.,

SURGEON TO JERSEY CITY CHARITY AND ST. FRANCIS' HOSPITALS.  
JERSEY CITY, N. J.

It frequently happens that surgeons are consulted in regard to the removal of granules of gunpowder, even months after the occurrence of the accident which gave rise to the defacement.

Heretofore, where the powder-granules were thickly imbedded, the desired object has been satisfactorily attained by dissecting up the integument, removing the granules and then replacing the flaps; but I am not aware that any plan has been previously suggested for the removal of the granules that are often found widely scattered over the face. About one year ago I was consulted in a case of this kind, and then de-

signed the instrument shown in the following wood-cut, which I have designated a discotome.



a. Handle; b. Screw; c. Guard; d. Circular cutting edge.

At my request, Messrs. F. G. Otto & Sons, of New York, made this instrument for me, and its use in my hands has been very satisfactory. It is prepared for use by adjusting the guard by the aid of the screw, so that the cut made may be of the required depth. This having been done, the circular cutting-edge is placed on the integument so as to encircle the granule of powder, and while slight pressure is maintained, the instrument is turned first to the right and then to the left. By this motion the integument is incised through its entire thickness; and now by the aid of a small tenaculum, made especially for this operation, the little disk thus cut is raised from its bed and the few connecting fibres at its base are separated by a scalpel or scissors. The diameter of the disk is about one line, so small that in healthy integument every trace of the operation will speedily disappear.

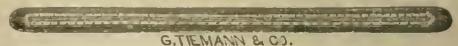
The following advantages are gained by the use of this instrument: 1st. The removal of scattered granules. 2d. This removal is effected with the least possible loss of tissue. 3d. The operation is easily, neatly, and quickly performed. 4th. No dressing is required, save possibly an occasional application of cold water.

### A MODIFICATION OF HODGE'S OPEN LEVER PESSARY.

By JNO. S. COLEMAN, M.D.,

AUGUSTA, GA.

The difficulties encountered in a change of form of Hodge's open lever pessary, and, sometimes, in its removal from the vagina (it being impossible to maintain a hold upon the smooth, hard rubber) induced me to attempt a modification of the material used in its construction, that would obviate these troubles. The pessary has been made for me by Messrs. Tieemann & Co., of New York, of copper wire and soft rubber.



This can be bent into any desired shape; the terminal end of each horn being of soft material, it does not impinge painfully upon the anterior wall of the vagina. It can be introduced as a closed lever, and the horns afterwards separated.

The soft rubber can be readily grasped, and the instrument removed according to Dr. Hodge's direc-



tions, or, the horns compressed, and then its removal is as easy as is the case with Dr. Albert Smith's pessary.

The open lever answers an indication fulfilled by no other form of pessary, *i. e.*, where the urethra is so sensitive that the slightest pressure upon it is intolerable.

My experience with this modification is, as yet, limited to three cases, but in them it was used with great satisfaction to myself and comfort to my patients.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 14 to July 20, 1878.*

BAILY, J. C., Major and Surgeon. When relieved, to return to his station, Presidio of San Francisco, Cal. S. O. 97, Div. of the Pacific and Dept. of California, July 1, 1878.

HUBBARD, V. B., Capt. and Asst. Surgeon. To report to Major Sanford, 1st Cav'y, for field duty with his command, relieving Surgeon J. C. Baily. S. O. 97, C. S., Div. Pacific and Dept. Cal.

AINSWORTH, F. C., 1st Lieut. and Asst. Surgeon. Assigned to duty with Battalion 8th Inf'y, ordered to duty in the field. S. O. 97, Div. of the Pacific and Dept. of California, July 1, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 20, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| July 13, 1878.... | 0             | 8              | 44             | 4                          | 20       | 31          | 0          |
| July 20, 1878.... | 0             | 8              | 51             | 1                          | 9        | 19          | 0          |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., July 13, 1878.

NATIONAL QUARANTINE REPORT.—The following information is furnished by the Surgeon-General of the Marine Hospital Service to State and municipal officers of health, etc., in accordance with the requirements of the National Quarantine Act:

*Havana.*—From twenty-six to thirty-four deaths from yellow fever, and more from small-pox, are now occurring weekly in the city of Havana.

*Cardenas and Sagua.*—Good health reported in bay and city.

*Matanzas.*—The captain and four of the crew of the bark Marie Donan were attacked with yellow fever on the 3d instant, in the harbor of Matanzas. Only one other case of fever has occurred in the shipping of that port. Sporadic cases are reported in the city, but the disease is of a mild character.

*Key West.*—Two cases of yellow fever have occurred in the harbor of Key West: one on the Norwegian ship Maria Frederika, and one on the Spanish bark Doña Talvafora. The city is reported healthy.

Two of the British vessels, which recently conveyed native Indian troops to Malta, had cholera on board during the passage from India. On one of the vessels nine cases and four deaths, and on the other, two deaths, occurred before the vessel passed the Suez Canal. The vessels were allowed to pass the canal without detention, though it is customary to send a vessel, on which a single case of cholera has occurred during the passage, back to Thor, 120 miles, there to remain two weeks or more in quarantine.—JNO. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

HOW TO SAVE INFANTS.—The Board of Health has issued the following circular in relation to the care and feeding of infants during the hot weather:

In nursing, over-feeding does more harm than anything else; nurse an infant a month or two old every two or three hours. Nurse an infant of six months and over five times in twenty-four hours, and no more. If an infant is thirsty, give it pure water, or barley-water, no sugar. On the hottest days, a few drops of whisky may be added to either water or food, the whisky not to exceed a teaspoonful in 24 hours.

If the infant must be fed, boil a teaspoonful of powdered barley (ground in a coffee-grinder) and a gill of water, with a little salt, for fifteen minutes, strain, then mix it with half as much boiled milk, add a lump of white sugar, size of a walnut, and give it lukewarm from a nursing-bottle; keep bottle and mouth-piece in a bowl of water when not in use, to which a little soda may be added. For infants five or six months old, give half barley-water and half boiled milk, with salt and a lump of sugar. For older infants, give more milk than barley-water. For infants very costive, give oat-meal instead of barley. Cook and strain as before. When your breast-milk is only half enough, change off between breast-milk and this prepared food. In hot weather, if blue litmus-paper, applied to the food, turns red, the food is too acid, and you must make a fresh mess, or add a small pinch of baking-soda. Infants of six months may have beef-tea or beef-soup once a day, by itself, or mixed with other food; and when ten or twelve months old, a crust of bread and a piece of rare beef to suck. No child under two years ought to eat at your table. Give no candies—in fact, nothing that is not contained in these rules, without a doctor's orders.

Summer complaint comes from over-feeding and hot and foul air. Keep doors and windows open. Wash your well children with cold water twice a day, and oftener in the hot season. Never neglect looseness of the bowels in an infant; consult the family or dispensary physician at once, and he will give you rules about what it should take and how it should be nursed. Keep your rooms as cool as possible, have them well ventilated, and do not allow any bad smell to come from sinks, privies, garbage-boxes, or gutters about the house where you live. See that your own apartments are right, and complain to the Board of Health. No. 301 Mott Street, if the neighborhood is offensive. Where an infant is cross and irritable in the hot weather, a trip on the water will do it a great deal of good (ferry-boat or excursion-boat), and may prevent cholera infantum.

NEW YORK FREE DISPENSARY FOR SICK CHILDREN.—The sixth annual report of the New York Free Dispensary for Sick Children, 217 East Forty-seventh Street, shows a creditable record, and evinces the value that may be given to an unpretentious institution having a real function in society, and fulfilling it instead of amusing the public with high-sounding

reports. A glance at the contents exhibits the fact that the institution has treated a grand total of 3,300 patients. Of these, 118 furnished surgical cases of some importance; 65 had diseases of the organs of circulation; of respiration, 1,122; of digestion, 1,069; of the nervous system, 73; of the skin, 246; eye and ear, 62; genito-urinary organs, 26; contagious diseases, 57; unclassified, 238. The number of vaccinations performed has been 92, and 132 patients have been visited at their homes; visits by district physicians, 248; prescriptions dispensed, 6,513. Saving the visits to sick children at their homes during the heat of the summer, for which purpose physicians had to be appointed and paid, the report of Dr. John C. Jay, the Treasurer, records disbursements only to the insignificant amount of \$1,655.63—a very creditable showing certainly in these days of frequent extravagance or worse in charitable institutions. The dispensary that can report such work as this at an expenditure so trifling, certainly vindicates its reason for being.

In other particulars the report conveys no noticeable lessons in medical science. The absence of pyæmia, erysipelas, and other forms of hospitalism, evidences the excellent sanitary administration of an institution that is not yet haunted by the bacterial spectre, and accounts for the low death-rate, considering the fact that 38 died of confessedly incurable diseases, leaving a balance of only 57 out of 623 dying of diseases not necessarily driving on to a fatal termination. The number of operations performed in the hospital was 37, none of them of mentionable gravity.

**TREATMENT OF TRANSVERSE FRACTURE OF THE PATELLA.**—Mr. Callender, of St. Bartholomew's Hospital, London, employs a very simple apparatus for transverse fracture of the patella. It consists essentially of a canvas slipper and of a sheet of plaster, fitted to the thigh and extending to the upper margin of the patella with loops on either side of that bone; the extension is made from the loops of plaster, the slipper serving as the point of counter-extension. By means of pulleys, the two fragments of the broken bone can be brought together, usually without difficulty. The patients are allowed to walk around with the apparatus on. The results obtained by its use have been very satisfactory.—*Medical Times and Gazette*.

**TREATMENT OF WHOOPING-COUGH.**—The following formula is recommended by M. Dervieux in the treatment of a commencing pertussis:

|                            |        |
|----------------------------|--------|
| R. Extract of aconite..... | gr. 4  |
| Cherry laurel water.....   | ℥ i.   |
| Syrup of ipecac.....       | ℥ xlv. |
| Mucilage.....              | ℥ vi.  |

M.

This is given as soon as the characteristic cough presents itself, in doses of a teaspoonful every hour to young infants, two teaspoonfuls to children over three years of age, and a tablespoonful to adults.—*Hospital Gazette*, etc.

**ACTION OF PARENCHYMATOUS INJECTIONS OF GLACIAL ACETIC ACID ON CARCINOMA.**—Dr. Gies injected diluted, glacial, acetic acid (1:3 aq. destil.) into a recurrent carcinoma, as large as a hen's egg, seated in the right side of the inferior maxilla; the injection excited suppuration, and the tumor was diminished to the size of a hazel-nut. A primary carcinoma, as large as a hen's egg, situated beneath the ear of the

same patient, was treated in the same way, and after 21 days had almost entirely disappeared; 25 syringefuls were injected before this tumor suppurated. A carcinoma as large as a hen's egg, situated in the left breast of a woman, suppurated after 10 injections, and in the course of a month had shrunk to a nodule about the size of a hazel-nut.—*Centralblatt f. Chir.*, No. 19.

**THE LONDON SMALL-POX EPIDEMIC.**—It is now little short of two years since the present epidemic of small-pox in London commenced, and the 56 fatal cases registered in the week ending May 11th raise the total of deaths from this disease, since the end of June, 1876, to 4,174. There has of late been a slight decline in the number of new cases and deaths reported weekly, but not enough to indicate a decided abatement of the epidemic. The proportion of unvaccinated persons dying from the disease is very large. One of the most remarkable features of the present epidemic is the comparative immunity from the disease, which the rest of England is enjoying at the present time. During the first three months of the present year, 716 deaths from small-pox were registered in England and Wales, of which no less than 627 occurred in London and its outer ring of suburban districts, and 44 in Harwich, Gravesend, Tunbridge, and Hitchin, while in all the rest of England and Wales only 45 fatal cases were registered.

**TURPENTINE AS AN EXTERNAL APPLICATION IN SMALL-POX.**—Dr. Farr, of Lambeth, ascribes great value to turpentine as an external application in small-pox. He claims that it at once relieves any smarting or irritation, effectually corrects the unpleasant odor given off in the more confluent form of the disease, and seems in a marked degree to arrest pustulation, thereby modifying and sometimes entirely preventing pitting. In consequence of its powerful antiseptic and disinfectant properties, it tends, moreover, to prevent the spread of the infection. Mr. Farr uses it in the proportion of one part of rectified spirits of turpentine to three or four of olive oil, and applies it night and morning by means of a feather.—*The Lancet*, May 11th.

**PROF. KARL ROKITANSKY.**—The death of Prof. Rokitansky is announced by telegraph from Vienna. He was born at Königgratz, in Bohemia, on February 20th, 1804, studied medicine in Prague and Vienna, and received the degree of Doctor in 1828. He was subsequently attached to the Institute of Pathological Anatomy in Vienna, and was afterwards appointed Demonstrator in the School of Chemistry. In 1841 he was made Honorary Director of the University of Prague, and Member of the Academy of Sciences of Vienna. In 1849 he was named Dean of the Professors of the School of Medicine, and in 1850 Rector of the University of Vienna. He was esteemed in Germany as the chief of the Viennese school of pathology. His principal work—*A Manual of Pathological Anatomy*—was published in Vienna in 1842. Three years later it was translated into English by the Sydenham Society, and published in London. A grand celebration of Rokitansky's seventieth birthday was held, in the hall of the Academy of Sciences, in Vienna, on February 20, 1874.

**PROF. BARTELS**, of Kiel, died on the 20th of June. A notice of his life will be given in a subsequent number.

▲ THERE are no yellow fever cases in the city.



## Original Lectures.

### LOCALIZED PERITONITIS—PROLONGED JAUNDICE—RENAL AND CARDIAC DISEASE.

A CLINICAL LECTURE DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK CITY.

By ALONZO CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE.

(Reported for THE MEDICAL RECORD.)

#### LOCAL PERITONITIS—ADHESIONS OF THE BOWELS—CONSTIPATION—COLIC.

GENTLEMEN:—This boy is twelve years old. Somewhat over one year ago he was hit in the abdomen by a snow-ball. The ball struck him just above the umbilicus and a little to the right of the median line. His mother says that in consequence of the injury thus received he was sick in bed, and that the physician who attended him thought he had peritonitis. At the same time it appears from the history that, although he suffered considerably from pain and had some fever, his bowels were readily acted upon by medicine. We should hardly expect that a blow from a snow-ball would give rise to peritonitis. It seems, however, that it was the opinion of the physician that it did. But a movement of the bowels would hardly occur if it had been *general* peritonitis. Inflammation of the peritoneum produced by violence or cutting, as in surgical operations, stab-wounds and bullet-wounds, is very apt to be local, and the same thing may be true of local injuries received upon the surface of the abdomen. It is possible, therefore, that this local external injury may have produced a local peritonitis. With reference to *general peritonitis*, it would be pretty safe to say that it did not exist, for the bowels were easily acted upon by medicine. Indeed, in general peritonitis, except in the puerperal form, cathartics have no effect whatever in the way of producing evacuation from the bowels. I am in the habit of saying, in my regular lectures upon general peritonitis, that cathartics administered under those circumstances will produce no more effect than if poured into a gun-barrel.

The mother also says that the boy vomited a small quantity of greenish material soon after he was taken sick. That would not be a diagnostic mark, but it renders it more probable that he had peritonitis to some extent.

The bowels were "swollen," we also learn—probably tympanitic—and this is another symptom of peritonitis. The sickness, then, which this boy had at that time, was probably a local peritonitis.

The mother says that, since recovering from his first sickness, he has had "several attacks of the *cramps*." He was nauseated when the first cramp or spasm came on, but vomiting did not occur, nor did the bowels become "swollen." The "cramps" have recurred at intervals varying from four to six weeks. When they occur the boy takes to his bed, the mother applies a mustard paste over the abdomen, gives him a dose of laxative medicine—usually senna and manna—and evacuation from the bowels is produced, relief follows to a certain extent, and at the end of about two days he is again up and about. Constipation is usually present before he has an "attack of the cramps." On physical examination of the abdomen there is evidently greater resistance to pressure upon the right

than upon the left side. There is nothing like a tumor or lump, but there is simply a little greater thickness of the walls of the abdomen. The percussion note is nearly the same upon both sides, which implies that the resistance to pressure is not made by fecal matter.

It is altogether probable that this boy a little more than a year ago had a local peritonitis, which resulted in adhesion of the bowels to one another, and to the walls of the abdomen through the region in which the inflammation existed, and that the adhesion of the intestine rendered him liable to attacks of colicky pain, which the mother calls cramps. When fecal matter reaches this portion of the intestinal canal, it is to a certain extent obstructed, and unless the accumulation above is sufficient to push the material onward, it may remain there and provoke pain. I doubt whether, during these latter attacks, the fever is very high, and the fact that they are relieved by a movement from the bowels is pretty good evidence that they are colicky in character.

The idea of the mother is that each attack is a new occurrence of the inflammation; but this view is hardly tenable, while the view which we have taken is rational, if we assume that the inflammation produced adhesion of the bowels.

There is then probably an imprisonment of the intestine at the point where the injury was received. For that, of course, there is no remedy but time; there is nothing else which will liberate the intestine. But we can save him from pain by the agency of laxative medicine taken every day, so as to move the fecal matters onward by stimulating the peristaltic action of the intestinal tube. The peristaltic action of the tube can be stimulated in the imprisoned portion as well as elsewhere.

For that purpose, therefore, I would recommend that the rhubarb and aloes, or comp. rhubarb pill be taken in such quantities as will give a pretty free movement from the bowels every day. With this condition there is a tendency to constipation, and the boy has that tendency. I think that a pill can be so graduated as to effect simply a full movement daily, and in that manner he will probably be relieved from the recurrences of pain.

#### JAUNDICE OF NEARLY FOUR MONTHS' DURATION—PROBABLE CAUSE—PROGNOSIS.

This man, *æt.* fifty years, and of temperate habit, has been intensely jaundiced since January 1, 1878. He has not at any time suffered from pain. He is a carpenter by trade. The first thing he noticed was loss of appetite and slight nausea. He has been able to work considerably since his jaundice commenced, but latterly has felt rather weak, and has not been able to perform much manual labor. About five weeks after the beginning of the jaundice, what he calls a diarrhoea appeared, which has continued up to this time. He says that at times he has had as many as six passages from the bowels daily; that they are clay-colored and somewhat consistent.

This can scarcely be called a diarrhoea. It would rather imply either impatience of the rectum in the discharge of any material that comes into it, whether the quantity be large or small, or an obstruction through which only a small quantity of fecal matter can pass at a time. At all events, the looseness of the bowels of which he complains does not deserve the name of debilitating diarrhoea.

He is drowsy a good deal of the time; the surface of his body is "all of an itch," and his urine stains his underclothes yellow. His skin, as you see, is of an

intensely bright yellow color. As we look at the abdomen it is seen that there is a fulness in the epigastrium; it looks as if there was something solid there. As I place my hand over this region I find that there is something beneath which resists pressure. The lower border of this tumor can be felt three inches below the free border of the ribs upon the left side, and the edge is pretty thick. The extent of hepatic dulness, on a line with the right nipple, is ten inches. There is a slight sulcus on the tumor under the free border of the ribs upon the right side, and a second one can be felt a little farther to the left. With these exceptions the surface is smooth.

We have then a patient in which jaundice appeared as the first symptom and has been constant since it began, in whom the passages from the bowels are clay-colored, who has an enlarged, and, with the exception of two slight depressions, a smooth liver, who has not at any time suffered from pain, and, as far as we can ascertain, who has not been addicted to the use of alcohol as a beverage.

With reference to the cause of these symptoms, I am inclined to the opinion that they are due to obstruction of the common bile-duct. The *ductus communis* can be permanently obstructed in a variety of ways.

One of these ways is by acute inflammation, which takes place in the capsule of Glisson. Again, it may become obstructed in consequence of a chronic process, in which the material which is thrown out is converted into fibrous matter that contracts and gradually constricts the duct.

This man has not had any pain which would lead us to the supposition that inflammatory action has been produced by the passage of gall-stones, an accident that occasionally happens.

I am, therefore, inclined to infer that the duct is obstructed by the contraction of new fibrous tissue, on its outside, just as it emerges from the liver.

If that is the fact, medicine will not do much in the way of affording relief. I would, however, have him take soda rather freely. I think it is a better choleragogue than mercury. It has at least one virtue, and that is the power of keeping the bile in a fluid state, thereby enabling it to pass through an opening which would not permit its escape were it viscid. I should recommend that this man take about ʒss. of carbonate of soda three times a day, and if it can be obtained, it may be taken in a glass of Vichy water, which renders the soda less disagreeable. I do not think that further medication will be of service except the daily use of iron, and the proto-carbonate or the chocolate iron lozenges is as good a preparation as can be employed.

It is one of the characteristics, when the outflow of bile is obstructed, that the liver should grow large and black.

There is a sequel to this history which I did not like to give in the presence of the patient. If our diagnosis is correct, he will go on from bad to worse, and finally die in consequence of exhaustion due to repeated hemorrhages. The hemorrhage is probably due to the fact that the blood-vessels are not properly nourished; they give way, and blood escapes from the mouth or from the bowels, or from some other part of the body. The hemorrhage will be repeated, and in three out of four cases the patient dies of exhaustion incident to its occurrence.

LEAD-POISONING—CARDIAC DISEASE—RENAL DISEASE—“THE TEAR LINE”—QUESTION REGARDING THE SIMULTANEOUS OCCURRENCE OF CHRONIC PHTHISIS AND CHRONIC CARDIAC DISEASES.

Our next patient is a man *act.* forty years, and a plumber by occupation. He says that about sixteen

years ago he had lead colic twice. There can be seen upon examination at the present time a slight trace of the blue line along the edge of the gums. He continued in his business, and has been able to work some during the past year. He has that peculiar, pale countenance which suggests the existence of Bright's disease. His urine has been examined and found to contain albumen.

His chief complaint is of palpitation of the heart and shortness of breath on going upstairs. He has noticed this especially during the past year. He has had attacks of articular rheumatism, the first occurring four or five years ago. He suffers considerably from headache. He has not at any time had *œdema* of the feet. He has spit blood within the last week. With the form of kidney disease now suspected, it is not at all uncommon to have no swelling of the feet when the urine passes freely. The best place to examine to determine whether there is any *œdematous* tendency, is at the inner border of the lower eyelid, just where the mucous membrane appears. The mucous membrane rises up and forms a bright line which looks like a small silver wire. It has sometimes been called “The Tear Line.” This is not distinctive of renal disease, but occurs in connection with diseases which give rise to *œdema* in other parts of the body. It disappears as the eyelid is drawn away from the eye. On examination of the chest, the apex of the heart is found beating at about five inches to the left of the median line and somewhat below the normal situation. There is a murmur, probably valvular, but it is not very distinct. There is probably mitral regurgitation. I would not expect that this man has much pulmonary disease.

Many years ago Rokitansky published the statement that there was an incompatibility between chronic phthisis and considerable disease of the heart. I had just finished reading the paragraph containing the statement, when I was asked to see a lady who had been an invalid for several years. I went and I found that she had advanced consumption and also advanced disease of the heart. I thought that was a rather speaking commentary upon the text I had just read. The two diseases, I think, exist in the same person and at the same time not infrequently; but I can hardly suppose that this man, who has had lead colic and still furnishes evidence of the existence of lead in the system, and has renal disease and cardiac disease, would also have pulmonary disease. A physical examination of the lungs, as you see, gives negative results. While examining the chest I discovered a peculiar, offensive sweetness of the breath, which is present when the system is not free from urea. Yet there is no *œdema*. His bowels are habitually constipated.

*Treatment.*—I should say that the best treatment for him would consist in the use of iron and diuretics, notwithstanding the absence of *œdema*. Iron may be used in almost any form, and perhaps as serviceable a preparation as any is the form contained in the chocolate lozenges just recommended.

It is because of the peculiar sweetness of the breath rather than *œdema* that I advise the use of diuretics, one of which should be infusion of digitalis, it having more power to cause separation of the salts of the urine than almost any article that can be employed. The salines will produce the watery elements of the urine, while digitalis is more likely to give urea and other substances which would be solid when the watery element is evaporated. As to the heart, it is beating regularly, and, I think, if he were not affected with renal disease, that he would scarcely know that his heart was in any way diseased. There is scarcely



anything to be prescribed for the heart. His food should be of the most nutritious kind, but more vegetable than animal. His urine will be examined for casts, and perhaps we shall know a little more what to do for him at his next visit.

## Original Communications.

### THE HEART IN TYPHO-MALARIAL FEVER.

By HENRY WORTHINGTON, M.D.,

LOS ANGELES, CAL.

THE cardiac variations in all forms of fever are interesting and highly important studies.

But so little has this department been investigated, and so meagre is the literature of the subject, that with the exception of Louis and Stokes, Gerhard and Huss, there is hardly an author with whom I am acquainted who has given anything like the elaborate record which the matter merits.

One would suppose that since Senac and Corvisart, Laënnec, Bouillard, Hope, and many others, have reduced the diagnosis of heart affections to almost a certainty—placing it, in fact, within the circle of exactitude, that there would have been more investigations in this promising field of research.

But, however silent most observers are with regard to the details of abnormalities in fever-hearts, probably all writers on fever are agreed that this organ plays an important part in questions of treatment and prognosis.

Moreover, my observations have convinced me that one of the most, if not the most, reliable guides, among the physical signs of fever, is the heart.

Huss's axiomatic statement, that "as feebleness of the muscular system is an index of the general depression of the vital forces, so the feebleness of the action of the heart, perceived in the alteration of its sounds, becomes the most exact measure which we possess of the general state of depression," is unquestionably applicable to the heart in this typho-malarial disease.

When we say secondary, it is not assumed that this is a specific fever. For the morbid principle is not identical with the typhoid material of the pythogenic disease, but it rests upon a double animal and vegetable base—a combination of septic and malarial elements.

The microscope has not revealed any special or pathognomonic changes in the heart substance in fever.

A parenchymatous degeneration of the muscular tissue is found, shown by flaccidity and softening; but this would not account for the violent disturbances of the heart's functions.

Hoffman's waxy degeneration is too exceptional to be pathognomonic. Nor are the granular changes infrequently noticed sufficient explanation. Nor can the teachings of the anatomical doctrines of Broussais be accepted; for it is not a carditis; there is no evidence of inflammation. It is the secondary effect of the fever-poison.

I do not know that any numerical laws could, at this stage of our knowledge, be laid down, even with the admirable researches of Dr. Woodward and the urny tables at hand; so that, as a matter of fact, our conclusions rest upon individual cases.

A class of cases of this typho-malarial disease may be observed having some peculiar characters. When the remissions are not so defined and the fever is more continued, the heart weakens progressively from systole to diastole, from left to right.

This is illustrated by a case transcribed from my note-book:

Jno. Rea, æt. 29, Englishman, began to have morning chill and evening fever every day, from Oct. 30, to Nov. 3, 1876. The fever became continued by the 6th, and on the 8th the temperature at 5 P.M. was 106°. Repeated sponging with ice-water and *agua-alicante* reduced the heat to 100½°. There was no intestinal hemorrhage, nor much tympany, but the tongue was dry and brown, and there was occasional low delirium at night.

On the evening of the 9th I discovered the first sound at apex gone, and the impulses very feeble.

The pulse throughout was soft and quick.

As the fever subsided, and stimulants were freely used, systolic contraction reappeared.

The order of results were: left ventricular debility, depression indicated by feeble impulse, weakened diastole, and a progressive return of power from right to left.

Liebermeister and E. Cyon state that this condition is due to increased temperature; according to Louis, "something the reverse of inflammation." Hertz claims that it is anæmia. Stokes refers it to an adynamic condition. Jaccoud, Trousseau, Bouchardat, Murchison, and Bartlett are silent.

Another set of cases are met with in which there is an excited but a feebly acting heart and right ventricular debility.

This is more frequent in the young in my experience, and occurred so often that I could not regard it as coincidental.

Sarah B—, a bright, intelligent native girl, aged 10 years. She was taken with a distinct chill, followed by an exacerbation of fever on Oct. 20, 1876. Daily remissions and exacerbations, which were controlled by quinine, occurred for four days, but by the 27th the symptoms were: red, dry tongue; cough, with expectoration of whitish sputa; light delirium at night; considerable tympany, but no tenderness; constipation; pulse ranging from 100 to 120, and temperature running up to 105½° on the 12th day. Respiration normal, nor was there any sign of the lung apices being affected.

Careful auscultation with the stethoscope twice daily showed that on the 14th day, although the heart was excited and impulse pretty violent (the pulse being small and compressible), the debility was beginning with the second sound at the base. The systolic contractions at apex did not show sign of weakening to any extent, nor was the apical second sound intensified. There was no murmur at the aortic orifice, nor were there any unusual pulsations of the carotids or the jugulars. This heart was not structurally or organically diseased, but simply poisoned by the morbid principle of the fever.

Cases were noted in which there was a want of relation between the heart and the pulse. Impending paralysis of the heart passes unnoticed sometimes if the pulse only is relied on.

Here again the heart is our safest prognostician, for "every hour of compelled life is a clear gain."

John Byard, æt. 50—Ireland. Admitted Sisters' Hospital, July 7, 1876. History of remittent fever from July 1st, contracted at the San Fernando Tunnel. Symptoms: Temp., 104°; pulse, 120; respir., 28; dry,

red-edged tongue; great restlessness and occasional delirium; abdomen swollen and tender; bowels constipated, and much difficulty in passing water. Slight hemorrhage from the bowels on the 13th, when the temperature was 105½°. The pulse now was 100, but the action of the heart was exceedingly quick and feeble. The first sound had disappeared and the impulse was almost imperceptible.

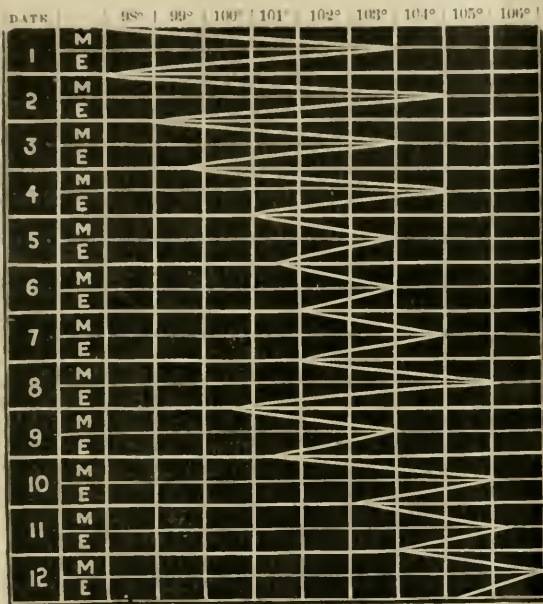
The heroic administration of whiskey and turpentine saved this man's life.

There is still another class of cases illustrating this secondary affection of the heart.

Adynamic typho-malarial fever presents a picture fully as terrible as the specific typhoid disease. Indeed, the characters are so nearly identical that, so far

as treatment and prognosis are concerned, they might be classed as one and the same disease.

The following is a schematic representation of three cases that died in the Sisters' Hospital here in the month of July, 1876. The patients suffered from the remittent type of fever in the beginning, which gradually became continued. A characteristic group of symptoms were present, such as dry tongue, cough with expectoration, usually vomiting, inconsiderable iliac tenderness and tympany; in one case diarrhoea, in one constipation, and the third, slight hemorrhage from bowels. They sank into an apathetic condition, muttering, delirium; in one case extreme jactitation, involuntary evacuations, and before death, the hippocratic expression.



DONNELLY, ET. 41.

## HEART.

Systolic debility; impulse weak; apical diastole prolonged.

Disappearance of first sound; loss of impulse; second sound short and valvular.

Before death, one weak, continuous sound, and no impulse — "Fœtal heart."

## POST-MORTEM.

*Brain*—Anæmic.

*Lungs*—Congested, and, posteriorly, splenization.

*Heart*—Soft and flabby.

*Stomach*—Mucous membrane red and softened.

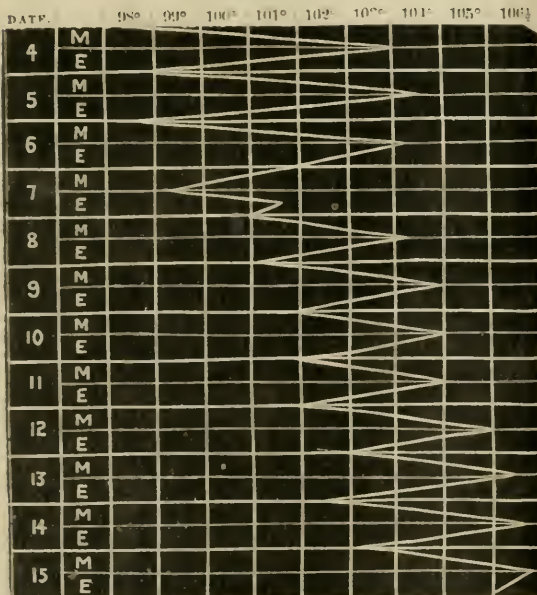
*Spleen*—Enlarged and easily torn.

*Liver*—Enlarged and brown.

*Kidneys*—Congested.

*Intestines*—Near ileo-cæcal valve several small ulcers, the edges inverted and subjacent mucous membrane undermined; Peyer's patches and mesenteric glands unchanged; mucous membrane throughout intensely pigmented.

*Bladder*—Softened and containing fetid urine.



HUBERT, ET. 39.

## HEART.

First sign of weakness at apex, followed by valvular diastole.

Sounds at the base somewhat feeble and muffled; impulse very weak.

Before death, action excited, and gradually both sound and impulse became imperceptible.

## POST-MORTEM.

*Brain*—Normal.

*Lungs*—Hyperæmic; hypostatic.

*Heart*—Pale and easily torn.

*Stomach*—Mucous membrane reddened.

*Spleen*—Soft and enlarged.

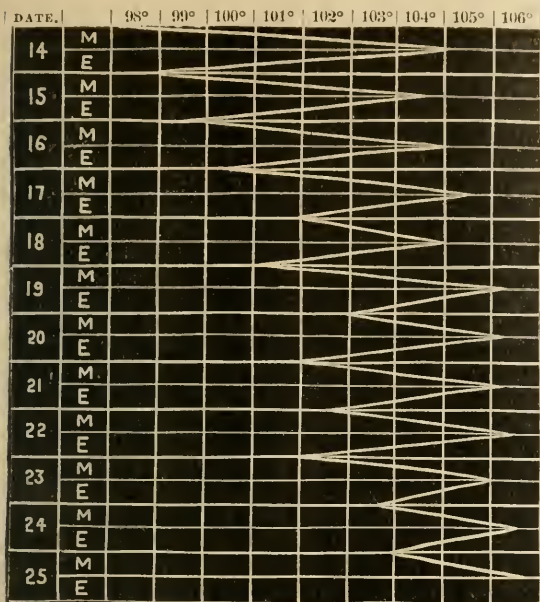
*Liver*—Hypertrophied and brown.

*Kidneys*—Enlarged and hyperæmic.

*Intestines*—Mucous membrane engorged and stained with pigmentary matter; mesenteric glands swollen slightly; Peyer's patches unchanged.

*Bladder*—Softened and very pale.





THOMAS, ET. 27.

| HEART.                                                                            | POST-MORTEM.                                                                                                            |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Systole weakening progressively, and diastole feeble and muffled; impulse feeble. | <i>Brain</i> —Healthy.                                                                                                  |
| A <i>bruit de soufflet</i> heard over situation of aortic valve.                  | <i>Lungs</i> —Congested, and, posteriorly, consolidated; pigment induration.                                            |
| Gradual loss of both sounds and impulse.                                          | <i>Heart</i> —Flaccid and pale; dilatation left auricle; pourtour of aortic valve red and velvety.                      |
| Death sudden from heart-paralysis.                                                | <i>Stomach</i> —Healthy.                                                                                                |
|                                                                                   | <i>Spleen</i> —Enlarged; trabeculae easily broken down.                                                                 |
|                                                                                   | <i>Liver</i> —Congested.                                                                                                |
|                                                                                   | <i>Kidneys</i> —Seat of small infarctions; enlarged.                                                                    |
|                                                                                   | <i>Intestines</i> —Mucous membrane swollen and red; mesenteric glands swollen; Brunner's glands enlarged and congested. |
|                                                                                   | <i>Bladder</i> —Normal.                                                                                                 |

These cases agree in this particular, that they represent a type of extreme adynamia; and one would look for mesenteric ulceration and other invariable lesions.

This exemption of the intestines from the specific disintegration, the unmistakable pigmentation of the entire alimentary tract, as pointed out by Woodward, and the thermometric curve, are pathognomonic.

The heart-lesions present nothing to account for the abnormalities during life. Nor does the microscope as yet afford us any assistance. What may be revealed in future investigation is but a matter of conjecture.

But the heart may escape this secondary implication. A very small proportion of cases were observed in which this obtained. The reason is inexplicable. As Stokes says, "One patient may have the heart engaged; in another with the same character of fever, it escapes. This is all we can say." I pass over the important study of the treatment of the heart—our means of preventing, if possible, the dire results of cardiac debility. It is, indeed, a consummation devoutly to be desired that we shall be able to ignore the ancient imputation, "*spera infestis, metue secundis*," and encounter successfully a Proteus that hitherto has mocked medical foresight. Maillot's first law, "to combat the visceral lesions," applies with double import to the heart in fever. I cannot omit to mention, in conclusion, a condition of irritability of the heart remaining after an attack of this fever, which not infrequently resists many methods of treatment.

The patient complains of shortness of breath on exertion, palpitation, and some distress about the cardiac region.

Upon examination the impulse is a little more forcible than normal, and there is unnatural epigastric pulsation.

No abnormal sounds are detected; nothing, in fact, to account for the distressing symptoms.

Da Costa states, in his paper on "Irritable Heart" (*Am. Jour. Med. Sci.*, January, 1871), that out of two hundred cases of this affection 14.5 per cent. followed fevers.

The majority of my recorded cases having been hos-

pital patients, I have not had opportunity of observing them subsequent to their discharge, and so get at the statistics.

## CLASS-ROOM LESSONS ON SYPHILIS, GIVEN AT THE COLLEGE OF PHYSICIANS AND SUR- GEONS IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

[For THE MEDICAL RECORD.]

### I.

#### CHANCRE, THE INITIAL LESION OF SYPHILIS—ITS MODIFICATIONS.

GENTLEMEN:—To-day we will begin the study of the characteristic forms of the initial lesion of syphilis, or the *chancre*, and the modifications which it may present.

*First*.—Chancre begins by a process of undue growth and multiplication of normal germinal cells, induced by contact (through a lesion of mucous membrane or integument) with diseased or degraded cells, derived from a person suffering from syphilis.

*Second*.—Cells thus generated accumulate at the point of initiation, in a circumscribed portion of the surrounding and underlying tissue, and also in the walls and interior of the blood- and lymph-vessels of the tissue so implicated, and thus form a characteristic neoplasm, which is termed the *initial lesion of syphilis*, of which there are five characteristic forms.

#### CHARACTERISTIC FORMS OF THE INITIAL LESION OF SYPHILIS.

*The Indurated Papule.*

*The Dry Scaly Patch.*

*The Chancreous Abrasion.*

*The Saucer-shaped Non-suppurating Chancre, with indurated Base and Edge.*

*The Elevated, Moist, Velvety Papule.*

## MODIFICATIONS OF THE INITIAL LESION OF SYPHILIS.

Of the modifications of the initial lesion of syphilis there are three :

*The Mucoid Form.*

*The Inflamed or Suppurating.*

*The Phagedenic or Gangrenous.*

We also see modifications arising from

Implantation of the *virus of chancreoid*, or other *vicious secretion*, upon the initial lesion of syphilis, of any one of the above described forms.

The initial lesion of syphilis may be concealed within the orifice of the meatus urinarius, the anus, or the mouth.

We will next study a little more in detail each of these characteristic forms of the

## INITIAL LESION OF SYPHILIS.

The differences in form of the initial lesion of syphilis are the legitimate and direct results of interference, to a greater or less degree, with the circulation of the tissues, at, or beneath, the point of initiation of the abnormal cell-growth. Thus, in regard to the first-named form: *The indurated papule* is a dense neoplasm, in the cellular tissue, *movable* under the skin, and hence not materially impeding its functions. Complete absorption of this morbid growth may take place, and the organism become thoroughly contaminated with syphilis, without the occurrence of any open lesion.

In the *dry scaling patch*, which always occurs upon integument, the cell-accumulation is more diffused and quite superficial, producing an induration which, to the touch, is like *parchment*; hence the term, "*parchment induration*," applied to this lesion. Interference with the circulation in this case is not sufficient to prevent the evolution of the epidermis, but its development is impeded, and layers of dry epidermic scales cling to its surface, giving it a characteristic scaly appearance.

*The chancreous abrasion* occurs upon an indurated papule, which by peripheral cell-growth has come to involve the circulation of the cutaneous or epithelial structures, to the extent of rendering them friable and easily abraded. Imperfect evolution of the underlying cell-elements results in a free shedding of the superficial layers from the moist surface of the lesion. Under the microscope these are seen to be like laminated epithelial scales, and constitute a significant mark of *chancreous abrasion*.

In the *saucer-shaped, non-suppurating chancre*, with *indurated base and edge*, a characteristic loss of tissue has taken place (almost entirely at the expense of the adventitious cell-growth) through the continuance and extension of the causes which produce the *chancreous abrasion*: loss of tissue as in that case also occurring, not through the suppurative or ulcerative process, but by that which Virchow has termed a *neerobiosis* (death from altered life), that is, from a gradual obstruction to the processes of nutrition of the affected part—the secretion of this form of initial lesion, scanty, free from pus, and presenting under the microscope the squamous epithelial elements found in the secretion of the chancreous abrasion.

*The elevated, soft, velvety papule* is neither more nor less than the previously described lesion, "*The saucer-shaped, non-suppurating chancre, with indurated base and edge*," upon which the *granulation tissue* of Billroth has been developed. This tissue is described in Billroth's *Pathology*, Am. ed., page 3, under the head of "*Proliferating Fungous Granulations*." He says: "The most frequent cause of the development of such

granulations is, *any local impediment to healing, such as rigidity of the surrounding skin*, so that the contraction of the cicatrix is difficult. This rigidity, in the case of the soft velvety papule, is caused by the characteristic induration of syphilis, always associated with this form of initial lesion.

We shall consider next,

## THE MODIFICATIONS TO WHICH THE DIFFERENT FORMS OF INITIAL LESION ARE SUBJECT.

*The mucoid chancre* is that modification of the *moist, velvety papule* which arises from the occurrence of a diphtheritic membrane, or deposit upon its surface, giving it the appearance of that secondary or constitutional manifestation of syphilis known as the *mucous papule*. This modification usually takes place coincidentally with the appearance of mucous papules, or patches, in other localities. The *induration* associated with the *initial lesion*, thus modified, and its entire absence in the *mucous papule*, will constitute the distinguishing difference between these lesions.

*The Inflamed or Suppurating Chancre.*—Any of the open initial lesions, subjected to persistent irritation from friction of clothes, repeated coition, application of caustics, alcoholic excess (especially in the scrofulous and debilitated), may set up an inflammatory action. This soon results in pus-formation and a more or less active necrosis, so like in character to that occurring in chancreoid that errors in diagnosis are easy. The now purulent secretion of the chancre is found to be contagious, producing, by auto-inoculation, a sore identical with true chancreoid, thus further obscuring the differential diagnosis. Previous history, and the induration more or less distinctly marked, will usually be sufficient to establish the true character of this lesion.

*The Phagedenic or Gangrenous Chancre.*—In certain cases of the inflamed or suppurating initial lesion, the indurated tissue becomes livid in color quite suddenly, and exhales a peculiar sickening odor, announcing the occurrence of gangrene. This results from arrest of the vascular supply to the induration, through an aggravation of the causes which led to the antecedent *neerobiosis*. This view is sustained by the known influence of mercury in staying or arresting the destructive process thus set up in the initial lesion, while in any other form of gangrene the influence of this drug is known to be pernicious; and also from the fact that the loss of tissue is usually limited to the induration. When the death of tissue occurs, by molecular continuity, the lesion is said to be *phagedenic*; when the induration sloughs out *en masse* it is called *gangrenous*. The influences which tend to convert the inflamed or suppurating initial lesion into the phagedenic or gangrenous are: *predisposition to suppuration from any cause*, constitutional dyscrasia, alcoholic excess, low, irregular life, etc.

## MODIFICATIONS FROM IMPLANTATION OF THE VIRUS OF CHANCROID, OR OTHER VICIOUS SECRETION, UPON THE INITIAL LESION OF SYPHILIS.

All forms of the initial lesion of syphilis may be modified and more or less obscured by the occurrence of ulceration, from any cause, upon the site of syphilitic inoculation.

No surface changes at the point of entry of the syphilitic virus, or principle can affect the course of the syphilitic infection after the disease-germ has passed into lymph-channels (spaces or vessels) below that surface. The characteristic local evidences of syphilitic infection may, however, be modified, and more or less completely obscured, by accidental lesions, such



as herpes resulting from contact with vicious vaginal and uterine secretions, or, by contact of the lesion of syphilitic inoculation with the virus of chancre. Such lesions pursue their course, uninfluenced by the syphilitic cell-proliferation previously inaugurated, and may thus obscure diagnosis, until evidences of constitutional infection are manifest. Hence, wherever the *possibility* of a syphilitic infection is present, any breach of tissue, whether a simple abrasion or fracture of mucous membrane or integument, or any vesicle or pustule, whether from general or venereal causes, whether healing as if simple, or pursuing the characteristic course of the chancre; then, in such case, opinions in regard to the *presence or absence of the initial lesion of syphilis* must be reserved until such time, from the date of latest exposure, *as will equal the longest period known to obtain between inoculation and syphilitic infection*, as indicated by induration of the local lesion and enlargement and induration of the adjacent lymphatic glands. This is not less than forty days.

*The Incubation of Syphilis.*—This is a term usually applied to the period which elapses from the date of inoculation to the appearance of the characteristic initial lesion, and varies in different cases, and according to different authorities, from nine to seventy days, the usual time being from ten to twenty-five days. Strictly speaking, syphilis has no period of true incubation, inasmuch as the process of cell-proliferation is undoubtedly established at the moment the virus (disease-cell or germ) comes in contact with the germinal or white blood-cell of the human organism.

The immediate effect of such contact seems to be a rapid increase in the process of proliferation of such of the normal white blood-cells as have become contaminated, or degraded, by the influence of the virus (disease-germ) of syphilis. Through accumulation of this degraded product, the tissue, including the vessels of nutrition at the point of initiation of this process, becomes densely packed (Biesiadecki), forming a neoplasm of greater or less extent. The process of degradation or infection is confined to the immediate locality of the inoculation, until the degraded cells have gained access to the interior of a lymphatic vessel. Through this channel the diseased cells are carried to the nearest lymphatic gland (the *gland of connection*, as it may be termed), and here are arrested by the peculiar conformation of the gland structure, for a longer or shorter period (usually about six weeks), during which time there is no further evidence of constitutional infection.

This period of *apparent rest* is usually termed the *second incubation of syphilis*.

## A LARGE DOSE OF STRYCHNINE, WITH RECOVERY—TEMPORARY PARALYSIS OF THE BLADDER.

REPORTED BY O. G. SELDEN, A.B., M.D.,

OF CATSKILL, N. Y.; FORMERLY MEMBER OF THE WISCONSIN STATE BOARD OF HEALTH.

(Read before the Greene County, N. Y., Medical Society.)

On the 9th day of September, 1877, I was called to see A. Manning, farmer, aged 44 years, residing in Monroe County, Wisconsin. I was informed that the patient had been for some months somewhat insane; at least that was the opinion of his friends and neighbors; also that the night before my visit, at about twelve o'clock, he had taken a large dose of strychnine with suicidal intent. He lived about ten miles from the

town where I resided, and when I arrived at his house it was seven o'clock A.M. I found him suffering from a very rigid tonic contraction of all the muscles of the lower extremities, rendering them fixed in a straight, extended position. No flexion of the legs could be accomplished either at ankle, knee, or hip, without making use of greater force than I thought justifiable. The jaws were also firmly set, and the patient could not open his mouth by any effort he was able to make. The muscles of the trunk, chest, and upper extremities, were but slightly, if at all, affected. Pulse 103, temp. 100°, body bathed in warm perspiration. Accompanying these conditions there was a peculiar nervous erethism, almost exactly resembling what I had seen in a case of hydrophobia several years before. The patient was very much alarmed and excited, slightly delirious, answering questions correctly when asked, but wandering when left to himself, and begged most piteously that I would not hurt him. I was forcibly struck with the very marked resemblance of the delirium in this case to that which I had often seen in *mania a potu*. The same nervous restlessness and fear of being injured, the same hyperæsthesia and shrinking from currents of air, made the similarity very striking. From the patient I learned that several days before he had purchased twenty-five cents' worth of strychnine, and that at midnight previously he had taken about half of it. He pointed out where the remainder was hidden, so that a member of his family found it and brought it to me. No vomiting had occurred since the poison was taken. The length of time that had elapsed from the taking of the poison made it evident that an emetic could do little or no good, and it was necessary to husband the strength of the patient. Then no medicine could be given per *orem*, without great difficulty and with little satisfaction. I therefore gave, hypodermically, fifteen drops of a solution of sulph. morph., five grains to the fluid drachm, and five drops of Tilden's fluid extract of belladonna, having had no atropine with me. In about half an hour the rigidity of the muscles was so far relaxed that the patient could open his mouth slightly, and ten grains of tannic acid were administered. The extreme nervous erethism of the patient was subsiding, and the profuse sweating somewhat diminished. Being obliged to leave my patient, I secured the services of an intelligent nurse to remain with him until my return on the next day. I explained to him the physiological and therapeutic action of belladonna, and directed four drops of Tilden's fluid extract to be given every two hours until extreme dilatation of the pupil took place, and continued every four hours thereafter, and ten grains of tannic acid every three hours until my return. I saw the patient next day, found the rigidity of muscles entirely relieved, also found him free from nervous agitation. I was informed by his wife that he was much more like his former self than for months before. It is unnecessary to detail the treatment day by day; it consisted in giving belladonna, sometimes with camphor, and free doses of tannic acid. Large doses of cathartics were at first necessary to procure a movement of the bowels, and the black draught seemed to do better than any other form of cathartic. After about ten days perfect paralysis of the coats of the urinary bladder came on, and the regular use of the catheter was necessary for about two weeks, when the normal function of the bladder was gradually restored. No specific treatment was had for the vesical paralysis other than general tonics of bark and iron, and the regular use of the catheter. In about two months the patient entirely recovered the use of his

physical and mental faculties, and up to March, 1878, remained, to all intents and purposes, *mens sana in corpore sano*.

In considering the above case the first question suggested is, how much strychnine did Manning really take? Unfortunately this cannot be exactly ascertained. Perhaps, however, the evidence in this case is as definite as we usually meet in similar cases. It is as follows: the patient, after his entire restoration to health, mental and physical, told the same story as when I first saw him; *id est*, that he had taken about half of what he had purchased. On my return home from my first visit to Manning, I went to all the drug stores in the town where I lived, and found that he had purchased from Gunn & Richards fifteen grains of crystallized strychnine, and the amount I had secured weighed a little over seven grains. This would make the dose taken between seven and eight grains.

Now, the largest dose of strychnine taken by any one who survived, that I have seen reported, is seven grains, and in connection with that report grave doubts are expressed as to the purity of the preparation taken. Manning took what appeared to be a pure article, and the bottle from which it was taken bore the mark of Powers & Weightman. Strychnine kills by producing a tetanic spasm of the muscles of respiration, setting up a mechanical asphyxia. Tetanic fixing of the cardiac muscles is also a probable factor in the cause of death. In the foregoing case the toxic effect of the poison seemed to expend itself on the muscles of the lower extremities and the jaws.

This man evidently escaped death in one of three ways: 1. The poison may have been impure. 2. He might not have taken the amount alleged. 3. From some idiosyncrasy the toxic effect did not take its usual course. Let those more familiar with strychnine-poisoning than the writer form their own opinions. Query: Is vesical paralysis a common symptom in those who survive strychnine-poisoning?

CATSKILL, June 14, 1878.

## Reports of Hospitals.

### PRESBYTERIAN HOSPITAL, N. Y., AND HOSPITAL DEPARTMENT OF COLORED HOME, N. Y.

#### ANTISEPTIC DELIGATION OF ARTERIES IN CONTINUITY.

SERVICE OF DR. CHARLES K. BRIDDON.

THE three following cases have come under the observation of Dr. Charles K. Briddon within the past few months: one in the service of the Presbyterian Hospital, the others in the hospital department of the Colored Home. They all alike illustrate in a very marked manner the advantages of the treatment of aneurism by the antiseptic method. Up to within a very recent period, those who have advocated the dressing in simple wounds, and even in those complicated by fracture of the long bones, have hesitated about applying the catgut ligature in the continuity of a large artery.

Previous experience in the "Home" justified the apprehension that any treatment was likely to be followed by disaster. One of the subjects was a broken-down syphilitic; the other had caries of the bones of the face at the time of the operation; yet in the first of these only one dressing was applied subsequent to the one used immediately after the operation: in the second case, two dressings were required: in the third

case, occurring at the Presbyterian Hospital, the parts were found entirely healed on the removal of the first dressing, seven days after the operation.

The only departure from the dressing advised by the distinguished author of the method was the absence of drainage-tubes; it was thought that the superficial character of the wound warranted the omission, and the results appeared to justify it. It will be remarked that a rather large (E violin string) ligature was used in all these cases; they were prepared by the operator himself, according to the prescription of Lister, and they were soft and pliable, and in every respect superior to those imported from Edinburgh; none of the sutures were removed; the loops disappeared, either by process of conversion or absorption, and the knots rubbed off into the dressings.

#### POPLITEAL ANEURISM—LIGATION OF FEMORAL ARTERY—CURE.

(Reported by ALBERTO LACAYO, M.D., House-Surgeon.)

John Gree, married, *et. 36*; Ireland; fireman. Admitted to the Presbyterian Hospital June 13, 1878, service of Dr. Briddon. Patient gives a syphilitic history of nine years' standing, and has had gonorrhœa twice, the attacks lasting about three months, and accompanied by suppurating buboes on each occasion. Otherwise he has always been healthy. About six months ago he noticed his knee was becoming stiff, and felt a very strong pulsation in the popliteal space. Ever since then he observed that a tumor was developing in that situation. The pain from which he suffered increased with the growth of the tumor. On admission, a lump about the size of a lemon was found at the upper part of the left popliteal space, presenting all the characteristic symptoms of aneurism.

June 17th.—The patient was anesthetized; the limb being slightly abducted and rotated outwards, an incision about three inches long was made at the apex of Scarpa's triangle over the line of the artery. After cutting through the integument and deep fascia, the sheath of the artery was exposed, opened, and an unarmed aneurism needle was passed under the artery from within outwards; then it was armed with a carbolized catgut (E violin string) ligature, and withdrawn. A nerve (supposed to be a branch from the anterior crural) was found in front of the artery; but was isolated to admit the passage of the ligature, which was secured by a square knot, and cut short. The wound was closed with catgut sutures. The lower part of the limb was enveloped in cotton wadding, secured with a four-inch roller-bandage. The operation was conducted under Lister's antiseptic method.

On the 24th of June the dressing was removed, and the wound was found healed by first intention; but, as a precaution, it was again dressed antiseptically. Patient was subsequently discharged cured.

(Reported by R. G. WIENER, M.D., House-Surgeon.)

Anne J., *et. 36*; N. Y.; widow, domestic, mulatto. Admitted to hospital department of Colored Home March 26, 1878, service of Dr. Briddon. Family and previous history good; been pregnant twice; regular and temperate in her habits. In good health until four months previous to admission. At that time a swelling showed itself at lower and outer portion of popliteal space, which was very painful, and was increasing in size; it was treated successively as erysipelas and synovitis. On admission, patient was in excellent physical condition. Examination reveals a pulsating tumor situated at the lowest portion of the popliteal space, behind and a little to the outer side of the external tuberosity of the tibia. Limb is semi-



flexed on thigh; tumor size of a goose-egg; bones in proximity not enlarged. On auscultation a soft blowing murmur is heard. Pressure on femoral causes a stoppage of bruit and pulsation; circumference of limb at tumor,  $15\frac{1}{2}$  inches; of healthy limb, at same place,  $11\frac{1}{4}$  inches.

March 30, 1878.—Dr. Briddon ligated the femoral artery, using Lister's apparatus and antiseptic dressing, as well as catgut ligature. Patient rallied well from operation.

April 7, 1878.—First dressing removed, because discharge presented itself. Dressing renewed next day. Permanently removed on April 15th, fifteen days after operation.

April 20, 1878.—Patient sits up; tumor very small size; no pulsation, no pain.

(Reported by F. HUBER, M.D., House-Surgeon.)

Ed. B., 35; m.; lab.; brown skin. Admitted to hospital department of Colored Home, March 3, 1878, service of Dr. Briddon.

Family history fair; a well-defined syphilitic history. Has had articular rheumatism; five weeks previous to admission noticed a swelling, gradually increasing in size, in the left popliteal space, accompanied by severe pain, especially at night, and progressive emaciation. On admission, patient is in poor condition, suffering great pain. The left leg is semiflexed, and in the popliteal space is situated a tumor the size of a goose-egg, giving all the signs of aneurism. Circumference of affected limb, at most prominent portion,  $15\frac{1}{2}$  inches; of other limb,  $13\frac{1}{4}$  inches.

March 18, 1878.—Dr. Briddon ligated the femoral artery, using Lister's apparatus and catgut ligature. The vessel was found with some difficulty, on account of its small size, and was adherent to the sheath. Patient rallied well from operation.

March 25, 1878.—First dressing removed; wound almost completely healed by first intention; no pulsation in sac. Patient comfortable; dressing renewed.

March 30, 1878.—New dressing applied.

April 9, 1878.—Dressing permanently removed. Patient stretches his limb; tumor markedly diminished in size.

April 20th.—Walks about ward.

## Progress of Medical Science.

THE NEUROSAL AND REFLEX AFFECTIONS OF THE HEART.—Dr. J. Milner Fothergill devoted the concluding lecture of his course on diseases of the heart to the neurosal and reflex affections of that organ. These affections are mainly palpitation, irregularity, and intermittency, of which palpitation is the most frequent. This may be often found with a debilitated condition of the muscular walls of the heart, where an increase of pressure within the cardiac chambers in diastole induces active ventricular contractions. It may also be found in subjects of gout, or lithiasis, or in women at or about the menopause, due to peripheral spasm and consequent increased obstruction to the ventricular systole. In the first form, that associated with muscular failure, digitalis, or strychnia, or belladonna is indicated; in the second form, relaxation of the contracted arterioles by the inhalation of amyl is the correct line of treatment. There is another form of palpitation which may be a reflex phenomenon, due to some uterine, ovarian, or genito-urinary affection, or which may be a true neurosis of

the cardiac ganglia. In the treatment of this form, the causal indications should be fulfilled as far as possible; bromide of potassium should be used to lessen the conductivity of the nervous tracts. The bromides, with or without iron as may be required, are indicated when the cardiac ganglia are involved. Where the palpitation is due to sudden changes in the peripheral arterioles, tonics, with which the bromides in some form may sometimes be united, are usually indicated. In chorea the palpitation subsides with the other symptoms; in Graves' disease it is very little amenable to treatment, but of all remedies belladonna is most frequently useful. The "Irritable Heart," of Da Costa, is sometimes benefited by cardiac sedatives, like aconite, while in other cases digitalis and strychnine are more useful. Irregularity of the heart's action is frequently found with dilatation, and, when palpitation on slight effort is also present, is of diagnostic value; in other cases it is of no moment. Intermittency may be a mere nervous phenomenon, or may be found with evidences of decaying arteries, where it is probably due to imperfect nutrition of the cardiac ganglia. Its value varies with its surroundings; it may be of great import or of no moment. Closely allied to this is the abnormally slow pulse of some persons or families; this is only a morbid state when the brain is insufficiently supplied with arterial blood. —*The American Practitioner*, June, 1878.

TREATMENT OF ACNE ROSACEA.—Prof. Hebra, of Vienna, reports six cases of acne rosacea, with the view of illustrating the different modes of operative treatment that may prove serviceable against this affection. Two of the cases presented the first degree of the affection, viz., cutaneous redness with dilatation of the vessels. These were treated by repeated punctures, which brought about the obliteration of the dilated vessels. The instrument used was a needle with a lance-shaped, two-edged blade, about one-twelfth of an inch long, and provided with a shoulder to keep it from penetrating too deeply. In performing the operation, Prof. Hebra stands behind the patient, who is seated in a chair, with the head bent backwards. He makes the punctures as close together as possible, and with the rapidity and regularity of a sewing-machine. At each puncture the needle is driven in, until it is arrested by the projecting shoulder with which it is provided. If possible, the entire morbid tissue should be operated on at a sitting. The hemorrhage is always considerable, but it is readily controlled by compression. The dressing consists of dry charpie secured by a bandage, and it should be renewed daily. Should suppuration occur, which, is rare, the dry dressing must be replaced by lead ointment or simple cerate. Sometimes it is necessary to repeat the operation several times before a cure is effected.

Two of the six cases presented in addition to the telangiectasis, considerable thickening of the cutis and numerous pustules. They were treated by scraping with the sharp curette. Although the curette only scrapes off the epidermis, the operation apparently causes obliteration of the vessels, as it is followed by disappearance of the redness and thickening. Not unfrequently, it is true, this result is only obtained after repeated operations and the development of superficial suppuration. Superficial nevi have sometimes been destroyed by a similar application of the curette. In the two cases reported, the operation was entirely successful.

Finally, the two remaining cases presented the third degree of acne rosacea, viz., great thickening of the skin of the nose, with the development of fleshy ex-

crecences. These were treated by the knife, the protuberances and hypertrophied parts being cut off or trimmed down. In one of the cases, a fleshy mass, which extended nearly an inch beyond the nasal cartilage, was removed by the elastic ligature for fear of hemorrhage, but Prof. Hebra states that in a similar case he would not hesitate to remove the mass at once with the knife. In each case he succeeded in forming a very presentable nose, to the great delight of the patients and his own satisfaction.—*Wiener med. Wochenschr.*, Jan. 5, 1878.

**THE OPERATION OF GASTRO-HYSTEROTOMY.**—A very interesting *résumé* of the operation of gastro-hysterotomy in America has just been published by Dr. Robert P. Harris, of Philadelphia. This is the result of eight years of labor, and, while all Cæsarean sections were diligently sought for, care was taken to exclude all cases in which the uterus was not incised. One of the greatest difficulties with which the surgeon had to contend has been the exhausted state of the patient at the time of operation, labor having frequently continued for days before relief was afforded. Of seventy-two cases occurring in the United States, but seventeen were operated upon within the first twenty-four hours; of these 70 per cent. of the mothers, and 80 per cent. of the children were saved. There are presented in all eighty cases for North America, with the recovery of forty-two women and the loss of thirty-eight. Nine cases more have been heard of as occurring in the United States, with six recoveries, but these are not included in the report. The propriety of employing uterine sutures is, perhaps, still a question, although in some of the cases death was apparently averted by their use. They were used in twelve cases with five recoveries; in three of the latter the silver-wire suture was employed. The experience both of this country and Europe tends to show that the catgut suture is unreliable, and the prevailing impression is in favor of silver wire as the best substance to be employed. A case is reported in which death took place thirty hours after the insertion of three silver-wire sutures in the uterus; at the autopsy, the uterine wound was found entirely united. Cold-water dressings and the antiseptic dressing of Lister have been used with advantage. Several cases on record were saved by reopening the abdominal wound above the pubes, and cleaning out accumulated discharges and secretions. It is thought to be fair to estimate the general result of American cases as a saving of 50 per cent. of the women; of the *timely operations*, from 70 to 75 per cent. of both women and children.—*The American Journal of the Medical Sciences*, April, 1878.

**DA COSTA ON GASTRIC VERTIGO AND THE HYPODERMIC USE OF IRON.**—The subject of the following clinical remarks was a widow forty-six years of age, who had passed the menopause, was free from constitutional disorder, rheumatism excepted, and whose life had been passed in comfortable circumstances. Palpitation and some uterine ailment were the only subjective affections additional to these now to be described. They consisted in giddiness, vomiting of greenish matter, with intense pain in the stomach, back, and eyes, and general debility. Palpation showed tenderness over the epigastric region, and auscultation a basic heart murmur. Temperature 98°; pulse 80; respiration twenty to the minute. The urine contained no albumen and no sugar. Specific gravity was low. Two distinct explanations of the difficulty had offered themselves: 1. That the case was one of brain disease with gastric disturbance. 2. That the

root of the difficulty lay in the stomach. The differential diagnosis turned mainly on the presence of a coated tongue and painful digestion, both belonging to gastric trouble rather than brain disease. Other additional peculiarities pointing towards gastric vertigo were: 1. Some relief of the symptoms when in the recumbent position. 2. The vertigo was objective, *i. e.*, external objects moved, not the body itself. 3. The giddiness came on in seizures (some every six months, lasting a few days). If in an attack a patient did but seize an object, the vertigo was temporarily arrested. Negative signs were absence of persistent headache, of motor palsy, or sensory disturbance. The ophthalmoscope might aid, though it was not well to lay too much stress upon it.

Prognosis is favorable, though recovery may be slow. Dr. Da Costa thinks a plausible explanation is the one that has been offered—*i. e.*, that it is a sympathetic disturbance of the vessels of the brain, due in some measure to the influence of the vaso-motor system. The direct anatomical connection between brain and stomach has been shown by Dr. Woakes, who traced "a filament of the pneumogastric nerve on its way to join the lower cervical ganglion, and from the point of junction to the labyrinth of the ear through the inhibitory nerves furnished to the vertebral artery from the ganglion."

Treatment consists essentially, after attention to the diet, in the giving of bitter tonics and alkalies. Alkaline waters, such as Vichy and Karlsbad, should be taken after meals. The stomach should also be invigorated by bitter tonics before meals; subsequently iron, with the thirtieth of a grain of strychnia, three times daily, is valuable.

Iron is a good remedy, both internally and by hypodermic injection late in the disease, when the stomach is improved, but not in the early stages, as it is not always well digested and may produce constipation. As for dialyzed iron by hypodermic injection, Dr. Da Costa has seen the most gratifying results in a case of chlorosis where the stomach was not very retentive. At first fifteen minims of pure dialyzed iron diluted was employed daily; this amount was gradually increased to thirty minims. Improvement was not marked. The menses came on regularly, digestion improved rapidly, the color returned to the lips, gums, and tongue, and the "venous hum" grew faint and distant. Subsequent results have not been so favorable. Constitutionally they have been good, but locally unsatisfactory, because of the local irritation produced.

Two bottles of dialyzed iron, purchased at the same time and from the same maker, have shown different results; one producing irritation, and the other not. Different effects were also obtained from the same bottle of iron. Still, its use has not been given up. Lately, however, he has used the ammonio-citrate of iron. He injects from two and a half to five grains of the ammonio-citrate in fifteen minims of distilled water, and has never seen any bad effect, locally or otherwise. These statements, however, are provisional merely. Instantaneous nausea is produced in some cases, but as this sometimes follows the use of plain water, imagination must largely be the cause.—*Bost. Med. and Surg. Journal*, June 6, 1878.

DR. EHLMANN, honorary Dean of the old Faculty of Medicine of Strasbourg, died on June 19th, at the age of eighty-six years.

DR. KARL MAXIMILIAN KOHLER, the Nestor of the medical profession of Württemberg, died recently at the advanced age of eighty-nine years.



# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## HOSPITAL APPOINTMENTS.

WITHIN the past few weeks the profession of Chicago has been much exercised concerning some hospital appointments that have been made there. As the experiences in the canvass have a universal application, we propose to state them previous to the offering of some remarks which suggest themselves under the circumstances.

The old hospital board was composed of twelve men—*i. e.*, the active board; nine were from the colleges and three from outside. It had almost without exception worked harmoniously. When, from time to time, however, a vacancy occurred, there had been complaint from men outside that the colleges were more than warrantably grasping. While this was true, it should be said that there was much greater contention among the college men themselves, as to which of the three regular schools should be favored in the filling of appointments. Many years ago the staff consisted of men not connected with colleges at all. Within eleven years no less than six men of that non-college staff have become professors in the medical schools, some in Rush, some in the Chicago, and some in the Woman's College. At the time of the revolution there were four voting members of the Board who were members of the faculty of Rush, and four who were of the faculty of Chicago College. But Rush had her four men on duty, while two of Chicago's men were not on the active, but the consulting corps of the Board. Besides, one other member of the active board held a subordinate position in Rush, and several of the non-college men notoriously favored Rush in voting. Naturally the Chicago College complained of this. The reply of Rush was that she sent two hundred and fifty students each year to the hospital, while Chicago—four miles away—sent none, and the Woman's sent yearly only perhaps a dozen.

The Board of County Commissioners, which has always had the appointing power heretofore, has always respected the nominations of the Medical Board whenever vacancies have occurred, until a year or two ago, when a man was nominated to fill a vacancy caused by the death of the late Prof. Freer, the nominee belonging to the faculty of Chicago College. This nomination was violated, and a Rush man elected by the political body. Doubtless this was brought about wholly by the political influence and exertions of the friends of the successful man; for the Rush faculty did not favor the move, but, on the contrary, they always deplored it as furnishing a dangerous precedent, to say the least of it. But some of the friends of Chicago College believe to this day that the Rush faculty aided in the matter. At any rate, the feeling of discontent on the part of the former college, at the ascendancy of the latter, has increased since that event. This feeling has had much to do in bringing about the present reorganization. It was doubly effective, as one member of the Board from Chicago College was exceedingly bitter in partisan feeling, freely declaring he would have justice for his college, or see the medical control turned over to politics and the irregulars entirely.

As soon as the Board of Commissioners were told by a member of the Medical Board how bad and rotten the latter was, how much it was run in the interest of Rush College, and how it needed reorganization, they believed it at once. Very innocently inferring that there must be something wrong, or they (the doctors) would not be quarrelling, they very magnanimously took matters into their own hands with the view of applying a suitable remedy.

Then there were several outside doctors of much political influence who pushed for places, and one who freely worked to revive an old moral scandal against a member of the Board, for the purpose of having him ousted, that he might have his place.

As the result of all this the Medical Board of the hospital was legislated out of existence by the Commissioners, and a new Board elected in the following manner: three men on nomination of Chicago College, three on nomination of Rush, while seven outside appointments were made.

There are a number of aspects in which this trouble can be viewed which may be profitable to other medical boards of hospitals similarly situated. There are good reasons why colleges should not monopolize hospital appointments; but, when the said colleges have no more than their proportion, the best interests of the profession and of the public are subserved. Of course, even under these circumstances, it is to be expected that there will be an active canvassing for the places to be filled by particular institutions; but nothing more should be done to effect the result. The moment a medical board quarrels and appeals to lay managers to settle difficulties, that moment its

prestige is gone, and, as in the present instance, what was first merely unfortunate becomes in the end positively disastrous. We have never known any medical board to be the gainer by such proceedings, but, on the contrary, the almost invariable rule has been to lose ground, to invite the appointment of incompetent men, and to open the door to persons who have more political than medical reputation. There is no doubt that the medical board in question has made a dreadful mistake, and that the end of the unfortunate squabble has not yet come. As an illustration in point, the Board of County Commissioners, on the day of election of the new medical board, were memorialized by the Homeopaths to appoint a representative of their body, by the Ladies' Christian Union to appoint one woman physician for the lying-in department, and by the Eclectics to be similarly represented. By the political accident of a forgone conclusion, none of these recommendations were heeded, else the consequences might have been even more regretful. There can hardly be any credit for good intentions on the part of the Commissioners, as a nomination of candidates from the Chicago Medical Society was significantly ignored.

The general profession of Chicago very properly feel greatly scandalized by this move in the direction of political management of professional matters, and many of the Commissioners are also disgusted with what they themselves have done.

The hospital loses by the change Dr. Bogue, who has done excellent duty in the surgical wards for years; Dr. Fitch, who has been one of the gynecologists for many years; Dr. H. M. Lyman, and others, and gains a number of untried men, two or three of whom can hardly do clinical work, and one of whom has not been in Chicago a year.

But this is nothing but the old story—delivering the citadel to the enemy because of a petty quarrel among the garrison. The old fable of the bird who fouls his own nest has a certain application to the history of this and similar troubles. Not only does the bird do a very unnecessary and stupid thing, but he spoils the nest for his companions, and makes himself homeless.

#### QUACKERY AND THE CLERGY.

In its efforts to educate the people upon sanitary matters, and in its struggles to elevate medicine to a science before the public, the medical profession has no more formidable antagonistic influence than that exercised in general by the clergy. The latter, as educated men, are looked upon as teachers for the community, have an influence with their audiences which is almost supreme, and yet choose to use that influence in an ignorant and prejudiced manner against legitimate and scientific medicine. There are exceptions to this general rule, it is true, in many leading clergymen, who abominate quackery in medicine as

they do hypocrisy in religion, and who at all times and on all occasions uphold the hands of the physician; but these, alas! are only exceptions, too insignificant to weigh in the balance against the host of their brethren who, not only in the way of omission, but of commission, openly, nay defiantly, sin against our profession. How often is the physician called upon to blush for some prominent divine who boldly recommends a patent medicine, who certifies to its efficacy either upon himself or some member of his family, who endorses fraudulent testimonials of cure-alls, and who eloquently advises the public to patronize some miserable, bare-faced quack. But this is an evil which is growing into such proportions that it is time the clergy as a body should have its attention directed to it with a view of suggesting some remedy. It strikes us that they are travelling out of their sphere in professing such a knowledge of medicine as enables them to prescribe remedies for the sick, and especially the latter whom they can only reach through the advertising columns either of the secular or religious papers. Then, again, diagnosis is a science to which the profession have for centuries paid a good deal of serious attention. Aside from the ridiculous presumption of the undertaking to diagnosticate and treat disease, there is a responsibility about it which few right-minded and conscientious men would care to assume. Unfortunately, the practice of medicine cannot be dispensed, even by experts, in a wholesale manner, and no particular cough mixture, medicated lozenge, kidney stimulator, or blood purifier has such a wide-spread application as, for instance, a sermon on original sin, on human depravity, or on the necessity of spiritual regeneration. If the profession would turn about and from its standpoint preach sermons upon these texts, how many striking examples could be found among the very men whose vocation is to teach us to avoid even the appearance of evil. The religious press are in no small degree accountable for such a state of affairs—in fact, openly encourage it by the insertion of the most objectionable quack advertisements. When the latter is done under the guise of religious instruction, language is too weak to express our condemnation of the hypocrisy. When medical men discuss theological questions and oppose sectarian doctrines, they are stigmatized as infidels, but clergymen can cure consumption with stewed chamomile, and can arrest Bright's disease with oyster shells and saltpetre, and still be the trusted advisers of the people. Is it not time that these frauds should be exposed?

OREGON STATE MEDICAL SOCIETY.—At the fifth annual meeting, held at Portland, Oregon, June 18th, the following officers were elected for the ensuing year: President, Dr. H. Carpenter, of Salem; Vice-President, Dr. F. A. Bailey, of Hillsboro; and Secretary, Dr. Curtis C. Strong, of Portland. The next annual meeting will be held in Portland.



## Reviews and Notices of Books.

A MANUAL OF OPERATIVE SURGERY. By LEWIS A. STIMSON, B.A., M.D., Surgeon to the Presbyterian Hospital, N. Y., etc., etc. With three hundred and thirty-two illustrations. Philadelphia: H. C. Lea. 12mo, pp. 477.

The work before us is a well-printed, profusely illustrated manual of over four hundred and seventy pages. Our author has endeavored, as the result of much painstaking and careful study, to present to the student and practitioner a trustworthy digest of the most approved methods of operating. In such efforts he has been signally successful. As he truthfully says, "In a preparation of a work of this character large drafts must be made upon the results of the labors of others," but the presentation of the general subject from his standpoint proves him to be capable of making judicious selections and judicial comparisons. The novice, by a perusal of the work, will gain a good idea of the general domain of operative surgery, while the practical surgeon has presented to him within a very concise and intelligible form the latest and most approved selections of operative procedure. Perhaps a better idea of the general scope of the manual can be given by the following reference to the contents: Part I. treats of the accessories of an operation, in which, among other matters described, is the induction of anesthesia, arrest of hemorrhage, the antiseptic method, sutures and bandages; Part II. comprises the ligature and surgical anatomy of special arteries; Part III., amputations; Part IV., excisions of joints and bones; Part V., neurotomy and tenotomy; Part VI., plastic operations on the face; Part VII., operations upon the eye, ear, mouth, pharynx, neck, thorax, stomach and intestines, genito-urinary organs of male and female, and lastly miscellaneous operations. The precision and conciseness with which the different operations are described enable the author to compress an immense amount of practical information in a very small compass. The illustrations are on the whole well selected, and with the exception of those on plastic operations are well executed. The original ones are very few in number, a fact to be regretted, considering the admirable manner in which they serve their purpose, particularly those marking the different lines of incisions in a few of the amputations and excisions.

NERVOUS DISEASES: THEIR DESCRIPTION AND TREATMENT. By ALLAN McLANE HAMILTON, M.D., one of the Attending Physicians at the Epileptic and Paralytic Hospital, Blackwell's Island, New York City. With fifty-three illustrations. 8vo, pp. 512. Philadelphia: Henry C. Lea, 1878.

"It has been my object to produce a concise, practical book; and should the satisfaction be ever accorded me of knowing that I have made the subjects of Diagnosis and Treatment of Nervous Diseases more simple to my readers than I think they now are, I will be amply rewarded for the task I have undertaken," says the preface. From a very careful examination of the whole work, we can justly say the author has not only clearly and fully treated of diagnosis and treatment, but, unlike most works of this class, it is very comprehensive in regard to etiology, and exposes the pathology of nervous diseases in the light of the very latest experiments and discoveries. Chap. I. treats of Diseases of the Cerebral Membranes; Chaps. II. to VII., Diseases of the Cerebrum and Cerebellum;

Chaps. VII. to XII., Diseases of the Spinal Meninges and Cord; Chap. XII., of Bulbar Diseases; Chaps. XIII. and XIV., of Cerebro-Spinal Diseases; and the remaining four chapters expose Diseases of the Peripheral Nerves.

The introduction gives valuable hints on examination of patients, and on what is especially valuable to students and general practitioners, namely, post-mortem examination in cases of nervous disease. Lombard's and other complicated and expensive instruments are not recommended, except for experimental purposes, the author considering Seguin's surface thermometer (which is figured) amply sufficient. Sieveking's athesiometer is preferred to all others, and a full table of athesiometric distances is given. Beard and Rockwell's Eulenberg's piesmeter is recommended. Mathieu's and the author's dynamometer are illustrated, and the latter recommended on account of its simplicity and reliability. For office practice it is undoubtedly excellent, but not as portable as Mathieu's instrument. The dynamograph and myograph are described. Loring's ophthalmoscope is figured and recommended; that of Liebreich is considered "quite unreliable." Hutchinson's rules for ophthalmoscopy are laid down as a guide. The author says (p. 29): "I do not believe that it [the ophthalmoscope] possesses any positive value in the diagnosis of brain diseases, *except where the condition of the fundus is the result of an organic disease of the brain or cord*, or when it is possible to connect such disorders with errors in refraction." He makes reference to Dr. Hammond's remarks about pert pretenders, and justly shows their indelicacy, to say the least. Electric apparatus and other instruments are described, the author recommending his modification of Dr. J. J. Putnam's gas cautery. He condemns the use of the spinal ether spray in conjunction with gas or Paqueulin's or like cauterics. Simple and chronic pachymeningitis are well illustrated by clinical cases. Haematoma of the Dura Mater is an exceedingly good article, clinically and pathologically. Acute tubercular (granular, as it is here called) meningitis is clearly and fully treated, the diagnosis being especially good. We agree that "... the affection is usually associated with a scrofulous cachexia; that it appears among children who are badly nourished, and in whom the nervous diathesis is well developed."

He considers the apoplectiform variety of cerebral hyperæmia a hemorrhage generally. We must take exception to the view so *positively* stated in a note on page 71, preferring to consider disturbance of cell-function as the cause of the symptoms. The etiology and pathology of cerebral hyperæmia are unusually well stated. The treatment is most judicious, and diet is brought prominently forward. Cerebral Hemorrhage is the best article in the book, being quite exhaustive, occupying 29 pages. Sleep is considered dependent upon change in nerve-cell function, primarily, changes in the cerebral circulation being secondary thereto. Weir Mitchell's treatment is given under the head of cerebral anemia. Auditory vertigo is well summed up; also cerebral embolism. We think the author has rendered students a great service in simplifying the classification of inflammations of the brain, and including them under the simple head of "Cerebral Softening." Apropos of aphasia (asemasia, as he prefers to call it), he very clearly states the relation of ideas and symbols; the whole article is excellent, and localization of brain-centres well illustrated by very fine wood-cuts and clinical cases. "Brain Tumors" is a very complete chapter (19 pages), and illustrated by eight excellent

wood-cuts. Spinal diseases are thoroughly considered. It is unfortunate that the misnomer, spinal irritation, was ever coined. It should be expunged from nosology, and substituted by some such name as sympathetic spinal neurosis, or the like. Our author does not consider it wholly dependent upon *anania spinalis*, but upon depressed function, in part, at least. We notice that no mention of phosphide of zinc, as recommended highly by Hammond and Flint, Sr., is made in the treatment of locomotor ataxia. Anterolateral amyotrophic sclerosis, a rare disease, is prominently brought to view, aided materially by a very interesting case of Seeligmüller. Tetanus is very carefully treated, and the Long Island district is figured in map form.

The author's article on the treatment of epilepsy is worthy of the most careful perusal, as it is exceedingly judicious. He strengthens his position by some valuable tables, and his entire remarks must go far toward diminishing the routine treatment by large doses of the bromides to the exclusion of all other remedies. We must acknowledge our decided preference for glosso-labio-laryngeal paralysis to "bulbar paralysis," which Dr. H. borrows from French authors. This is not a paralysis of the medulla oblongata (*le bulbe*), but a lesion in that organ causes paralysis of the tongue, lips, and larynx. We are not a little surprised to find no reference to Dr. J. Lewis Smith's elaborate article on cerebro-spinal fever in the *American Journal of the Medical Sciences*, Oct., 1873, pp. 313 *et seq.* Cerebro-spinal sclerosis, alcoholism, and hydrophobia (or, as the author prefers, rabies canina) are well considered; the McCormick case is fully given under the last heading, and the disease is considered as one of general blood-poisoning. Hysteria occupies fourteen pages, and is fully up to the standard, the author not believing that it is a form of insanity. Hystero-epilepsy is the same article as appeared, from the author's pen, in the *Amer. Jour. Med. Sci.*, Oct., 1877, pp. 448 *et seq.*, with the addition of a wood-cut. Curiously enough, he does not speak of its prognosis or treatment. There is a splendid chapter on chorea, in which he justly condemns the use of eserine. Dr. Yeo's case of exophthalmic goitre is illustrated.

Diseases of the peripheral nerves obtain due and satisfactory consideration; traumatic paralysis, tetany, reflex spasm, and professional cramp being especially noticed. Ninety-five formulæ, which is really an advantageous feature for students, follow, and the work is finished by a very full index. Synonyms and duration of each disease, reports of clinical cases, prominence of syphilis in its modifying influence upon nervous diseases, are other admirable features of this work. The author's style is concise and peculiarly clear, the language elegant, barring such an affectation as *ancient cases* (p. 247) and common expression as "stiff" dose (p. 439). Bouchut is spelled Bouchet in two or more places, Guersant as Guersent (p. 59), Carville as Carvaille, Küssnaul as Kausmalt, etc., undoubtedly typographical errors, as well as Fig. 5, which is marked 7 in the wood-cut on page 97.

In two of the formulæ, chloroformæ should be chloroformi. Neurosis we have always considered as *essentially a functional* affection, and we must dissent from its use as a *synonym* of affection or disease, see pp. 223, 231, etc. Mrs. Jacobi, on page 239, might well be changed to the lady's more professional title. These are, of course, minor defects, but a work otherwise so excellent should be perfected in future editions, which we predict. The drawings are excellent, and well selected. After this careful revision we can heartily recommend this work to students and general

practitioners in particular as being a full exposition of diseases of the nervous system, their pathology and treatment, to date, the equal of any and, in some respects, the peer of some, because of its concise comprehensiveness.

#### PROCEEDINGS OF THE FOURTH ANNUAL MEETING OF THE OREGON STATE MEDICAL SOCIETY. 1877.

THE two papers that will strike Eastern readers in this Pacific pamphlet of eighty pages will be Dr. W. B. Cardwell's carefully digested report on the "Medical Topography and Climatology of Oregon," which furnishes an excellent summary of facts drawn mainly from personal observation, and the "Report of Cases from St. Vincent's Hospital, Portland," by R. G. Rex, M.D., which affords a series of illustrations of the diseases of the Pacific coast. Of the 33 deaths enumerated in the report, phthisis was responsible for 8; typhoid fever for 4; pneumonia for only 1; cancer for 2, and diphtheria for 2. From Dr. Cardwell's report on climatology it appears that during the year 1877 the mean barometrical pressure was 30.04, with 30.65 as the highest, and 29.43 as the lowest term, 148 days of fair weather, 145 rainy days, and 70 days of weather described as cloudy. The mean temperature of the year was 50° F., with 51°, 64°, 52° and 40° as the mean spring, summer, autumn, and winter terms. The thermometrical range is from two or three degrees above zero to eighty-five. Humidity is not reported upon. The President of the Society, Dr. W. H. Watkins, opens the proceedings with an address on the "Origin of Disease," which is more positive in its adherence to the bacterial or germ theory than a cautious physician would care to be in these days of keen and rapid inquiry. This sense of security in relation to the operations of micrococci cells, ferment germs and such minute bodies, as accounting for all or most physical ills, would be very delightful, were it not for the rude shock of awakening that often follows the premature acceptance of an undemonstrated hypothesis. In reality, the bacterial theory of disease is losing ground with the best microscopic observers, and unless some remarkable discovery should result in giving it a new vitality, it must soon make way for a deeper and more enlightened view.

THE CURE OF RUPTURE, REDUCIBLE AND IRREDUCIBLE, also of Varicocele and Hydrocele, by New Methods. By GEORGE HEATON, M.D. Edited by J. Henry Davenport, A.M., M.D. Boston: H. O. Houghton & Co. 1877.

IN this little treatise the author has seen fit to give to the profession the method that he has for many years practised for the cure of hernia. After reviewing the various forms of "Abdominal Hernia," etiology, pathology, frequency, and diagnosis, he proceeds in the second chapter to the "Radical Cure of Reducible Hernia." This is produced by "tendinous irritation," the irritant material being a combination of the fluid and solid extracts of quercus albus, with a small amount of sulphate of morphine. The operation is performed with an instrument similar to the hypodermic syringe; the needle of this is passed into the inguinal canal, the cord and sac being avoided, and about ten minims of the irritant deposited near the internal ring; the sac is returned when possible, before operating, but its presence in the canal does not prevent a cure. If, through error, the irritant is deposited within the sac, no curative effects are to be expected. Immediately after operating a bandage is tightly applied with a compress over the inguinal canal. "Following the operation there occurs a dull local pain which, after



attaining a moderate degree of acuteness, gradually subsides and disappears altogether in from six to twelve hours." No further pain, swelling, redness, or increase of temperature follows. The patient is kept on his back for a week or so, when exercise is carefully resumed. Cloths wet with spirits and water control any excess of irritation, should it occur. The operation causes very little pain. Patients once operated upon have no fear of a repetition, should this be necessary.

Irreducible is claimed to be converted into reducible hernia by perseverance in taxis at several sittings. "The fore-finger invaginated in the scrotal tissues can frequently be insinuated within the inguinal canal, and then be slowly yet forcibly swept around the neck of the sac, thus effectually disengaging it and breaking up all attachments." Failing in this the author does not hesitate to cut down and dissect away the adhesions. Omentum which has become hardened is ligated and removed, experience having proven that when returned within the abdomen it acts as a foreign body. Varicocele is treated by the author by ligation of the veins at two or more points (subcutaneously) with silver wire, the latter left in the scrotum. Hydrocele is treated by introducing about two grains of red precipitate on a moistened probe through the canula after removing the liquid. Many cases are given upon which the author has operated for hernia. We hope to see the operation tested by others.

#### TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY, 1877. TWENTY-SEVENTH ANNUAL SESSION.

EXCLUSIVE of routine matter, the Transactions of the Indiana State Medical Society at the last annual session consist of thirteen papers, most of which are discursive dissertations on general questions, rather than practical additions to the literature of medicine. For example, Dr. J. W. Hervey, of Indianapolis, who has had considerable experience as a member of the State Board of Health, gives his views at length as to the best methods of securing medical legislation. Taking his own observation of thirty years' practice in the State, together with the information gathered from correspondence and from mortuary statistics, his conclusion is that twenty deaths in every hundred are in consequence of preventable causes, and that two thousand lives are sacrificed yearly in the State of Indiana to ignorance and ineptitude. He concludes with the suggestion, practicable everywhere, that the Society appoint a Standing Committee on the Public Health, and that the members and the profession at large be requested to report to that committee, on the occurrence of all epidemics during the year, the circumstances attending their appearance, the extent of their prevalence, and any modifying influences or other data that may appear to have part in determining them; the purpose being to amass accurate information respecting the influence of water-dams, stagnant streams, ponds, and pools, on the public health, and respecting the influence upon the same of drainage, cultivation of the soil, etc. The annual reports of the committee, while analyzing and classifying the facts furnished by correspondents, should, he thinks, discuss the remedial measures essential in the case, specify the amount required to put them in operation, and thus furnish the basis for an annual appeal by the Society to the Legislature of the State with a view to adequate statute provisions. Of course he has not forgotten the most essential feature of such a system, namely, the free distribution among the people of as many copies of the annual address of the Committee

on Public Health as can be conveniently provided for. Dr. J. I. Rooker, of Noblesville, has a criticism on the indiscriminate use of hypodermic medication, which evinces a healthy reaction in the medical sentiment of the West, against the prevailing fashion of using the hypodermic syringe (with morphia) without due consideration of the possible consequences. A curious case of anencephalia is reported by B. J. How, M.D., of Orleans. The papers on the "Pathology and Treatment of Cancer," on "Goulon's Treatment of Colles' Fracture," and on the "Hereditary Transmission of Disease," discuss these topics rather generally, and from their literature, than in the manner of original investigation; and the same criticism is applicable to Dr. Hobbs' dissertation on medical testimony in courts of law, although it abounds in excellent suggestions, and is thoroughly intelligent as respects the latest aspects of medical jurisprudence. In his article on the "Therapeutic Properties of Opium," Dr. L. L. Todd, of Indianapolis, has a note on the use of the drug in cerebro-spinal meningitis, which condenses the testimony of experts on that question in a manner to make it of practical value to the profession, and to obviate the present necessity of collating from many volumes before forming an opinion.

#### THE PHYSICS OF THE INFECTIOUS DISEASES. By C. A. LOGAN, A.M., M.D. 12mo, cloth, pp. 212.

THE author spent, recently, four years upon the west coast of South America, in an official position, which afforded him exceptional facilities for study and research. This region is remarkably exempt from infectious diseases, and the author attributes this to its remarkable physical features, which he fully describes and discusses. Part I. treats of the infectious diseases, their history, classification and geography. Part II., of the physical aspects of the Pacific coast of South America, and contains a large amount of information heretofore inaccessible, such as the electric atmospheric changes due to earthquakes, etc. Part III., of the medical aspects of the Pacific coast of South America, with descriptions of its cities, prevalent diseases, etc., etc. Part IV., of the physics of specific causation, comprising a discussion of the bacterial and other hypotheses; and the development of a theory by the author, in the discussion of which the questions of energy in general, the vital energy, the construction and functions of the nervous system, etc., are considered in a thoroughly philosophical and very interesting manner. Part V., of the therapeutics of the infectious diseases, embracing suggestions as to treatment, founded upon the views of causation, laying special stress upon oxygen and ozone, as disinfectants and curative agents. Part VI., of the question of energy as related to general disorders of the nervous system, with suggestions as to general treatment.

We especially recommend this modest little volume to all who are interested rather in the *causes* of disease, and scientific treatment based thereon, than in mere empirical routineism. It is a handsomely printed and bound volume, which should be found in every physician's library.

ILLEGITIMATE CHILDREN IN BERLIN.—According to the figures of the City Bureau of Statistics, 5,987 illegitimate children were born in Berlin during the year 1877. Of the mothers, 1,565 were house-servants, 1,077 seamstresses, 1,104 workwomen, 318 widows, and 349 housekeepers; the remainder were teachers, shopgirls, singers, actresses, laundresses, etc.

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, June 20, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### THE MOST EFFECTUAL METHOD FOR CONTROLLING THE HIGH TEMPERATURE OCCURRING AFTER OVIARTOMY.

DR. T. GAILLARD THOMAS read an interesting paper upon the above subject. He regarded the establishment of clinical thermometry as one of the most important advancements made in medicine in the nineteenth century. It was important with reference to diagnosis and prognosis, and not this merely, but the knowledge of the fact that high temperature killed the patient had led to devising methods for its reduction, the most valuable of which was refrigeration of the surface by water having a temperature several degrees lower than the temperature of the body. The author of the paper then reviewed the literature of his subject, and found that although Curry used, and in a well-written book recommended, the use of cold water to reduce the abnormal temperature of the human body, and was the first to place its use upon a scientific basis, the antipyretic influence of cold water when applied to the surface of the body was recognized by Celsus, who lived and wrote in the first century of the Christian era. With Curry originated clinical thermometry, and an instrument made and used in his day (now over 100 years old) was exhibited.

Dr. Thomas regarded cold water as the most valuable therapeutic agent that had been employed for the reduction of high temperature. His experience in the use of salicylic acid and large doses of quinine for that purpose had not been so gratifying as that related by many therapeutists, and had led him rather to sympathize with the revival and elaboration of the desultory efforts made to reduce high temperature in the days of Celsus.

Notwithstanding the demonstrated value of cold water as an antipyretic when applied to the surface of the body, the cold bath or the cold affusion was not generally resorted to, and the question arose, Why was general refrigeration of the surface of the body, by means of cold water, so little employed? The reason was to be found in the difficulties attending the application of the method. Sponging the surface of the body, however, with water was so uncertain and imperfect that it was not worth resorting to, and the cold pack of the hydropath soon amounted to fomentation; but they were the methods commonly substituted for the cold bath or the cold affusion.

#### HOW DOES MERE LOWERING THE TEMPERATURE SAVE LIFE WHILE THE DISORDER CREATING THE PYREXIA IS EXISTING?

The answer to the above question was given by illustration. For example: in *sunstroke* there were marked changes in the blood, and alterations in the sympathetic ganglia and in the vagi, and yet the high temperature of the condition was not the essential disease; it was merely one of the attendants which favored the changes in the organs and tissues of the body, such as contributed to a fatal issue.

In typhoid fever life was destroyed either from perforation of the intestine, hemorrhage, syncope, ex-

hausting diarrhœa, etc., but by far the greatest number of deaths were effected through the agency of prolonged high temperature, which so disturbed vital action as to directly produce morbid changes in the blood and tissues favorable to a fatal issue. Reduction of high temperature, therefore, during the progress of any disease, disarmed it of one of its most formidable weapons, and by so much favored nature's effort to establish a recovery. All that had been said with reference to clinical thermometry, in connection with high temperature in any disease, was applicable to ovariectomy for the first two or three weeks after the operation.

#### DANGERS AFTER OVIARTOMY.

The two greatest and most frequently destructive complications which arose after ovariectomy were peritonitis and septicæmia, both of which began their existence by rapid rise in temperature.

The *first* was liable to develop its existence within the twenty-four hours next succeeding the operation; the *second* generally developed between the fourth and fourteenth days.

The special object of the paper was to bring before the Academy the advisability of consulting the temperature and resorting to means for its control before the nervous centres were depreciated both in their function and force. To remove an ovariectomy patient from the bed to a bathing-tub was a procedure that was attended by very great risks. To obviate such danger, and yet give the patient the full advantage of refrigeration of the surface by the application of cold water, the author of the paper recommended the employment of what was known as

#### KIMBEE'S FEVER-COT.

The cot consists of a strong, elastic, cotton netting, manufactured for the purpose, through which water readily passes to the bottom below, which is of rubber cloth, so adjusted as to convey it to a vessel at the foot. When not in use it can be closely folded (see *MEDICAL RECORD*, vol. xii., p. 79). The method of management was the following: Place upon the cot a blanket or sheet two or three thicknesses, which is to cover the patient's hips, a portion of the trunk, and a portion of the thighs. The patient, transferred from the operating-table to the cot, is covered with folded blanket or sheet, which is kept constantly wet by pouring cold water upon it. The temperature should be taken every hour. In some instances the temperature had been reduced to 96° F., but it was readily restored by using warm instead of cold water. Bottles of warm water should be placed to the feet and hands. Taking the temperature every hour, the patient remained upon the cot as long as necessary, constantly enveloped in the wet sheet and constantly exposed to the influence of cold water. The urine was drawn with a catheter, and a bed-pan used, so that no necessity arose for changing the sheet or in any way disturbing the patient.

The aim should be to keep the temperature of the body at 100° F., or a little less. The water collected in the tub at the foot of the cot was usually 8° or 10° F. warmer than when poured from the pitcher. In one case the water was elevated in temperature 12° F. by passing over the patient's body. It was not expected, by the method of constantly keeping a portion of the body wet with cold water, to cure peritonitis or septicæmia, but the hope which Dr. Thomas had was to rob those diseases of one of their chief weapons—hyperpyrexia.



## ILLUSTRATIVE CASES.

Dr. Thomas then gave the history of cases which illustrated the power cold water had for controlling the high temperature:

*Case I. Acute Peritonitis following Ovariectomy.*—The symptoms were rise in temperature (103° F.), acceleration of pulse (130), intense pain in the abdomen, and vomiting.

In this case it was demonstrated that too cold water was employed at first (50° F.); the effect upon the patient was too severe, and it was subsequently used much warmer than at the beginning. The pain was quieted by the hypodermic use of morphine. That acute peritonitis was progressing was shown by the discharge of pus from the abdominal incision, and at autopsy it was found that gangrene of the intestines had occurred; yet the temperature of the body was maintained at 100 and 101° F. during the entire progress of the case.

*Case II.*—In this case pleurisy and pneumonia were found at autopsy, and it was open to the suspicion that they were developed by the use of the cold-water affusions.

Dr. Thomas did not share in that opinion, however, and believed that the uniform capacity of refrigeration of the surface to control temperature was demonstrated.

*Case III. Acute Peritonitis following Ovariectomy.*—Water at a temperature of 70° or 75° F. was employed, and the affusions repeated nearly every hour. After ten affusions the pulse fell to 98, temperature to 100° F., at which point it was maintained, and the patient steadily progressed to recovery.

*Case IV.*—The third day after the operation the temperature began to rise. Water at 74° F. was employed, and after three affusions the pulse fell to 96, temperature to 100 $\frac{2}{3}$ °, and from that point the patient went on to convalescence.

*Case V.*—The temperature rose to 105° F., pulse to 130 and 140. The patient was placed on the fever-cot, and water at 80° F. used. At the end of one hour and a quarter the temperature was reduced to 102° F., and the pulse to 118. Four more affusions, and the temperature was lowered to 100 $\frac{6}{10}$ °, and the pulse to 104. The cold affusions were kept up for about one week, and recovery took place.

*Case VI. Peritonitis following Use of Pessary.*—In this case Dr. Thomas was sure that opium alone would not have cured the patient. The opium was much more effectual when the temperature was reduced by the cold affusions.

*Case VII.*—The case had been operated upon in Owego, N. Y., and left in care of Dr. Ayer, whose patient she was. It was reported as a case illustrating the power which refrigeration of the surface had in preventing the development of peritonitis.

In concluding the paper, Dr. Thomas remarked, he did not claim that peritonitis and septicæmia after ovariectomy were absolutely checked, but simply that their course was robbed of much of its destructiveness by the use of cold affusion for controlling high temperature.

For sensitive persons it was well, perhaps, to begin with water at 98° F., and gradually reduce its temperature to 75 or 70° F., or lower if borne well and further reduction was necessary to control the temperature of the body. The Doctor was sure, in the light of his experience in the use of this means, that in the future cold affusion for reducing high temperature would earn the position of honor and trust from the ovariectomist.

Dr. JOSEPH W. RICHARDS remarked that his father, who was a physician, read and recognized the great value of Curry's book as a literary production, yet he never put its doctrines into practical application. He belonged to that class of which Dr. Thomas had spoken, and of which there was such a large number, who were willing to acknowledge the great merit of cold water as a therapeutical agent for the reduction of high temperature, yet never resorted to its systematic application. As early as 1825, Dr. Richards, then a young practitioner, had treated the hot skin of scarlet fever (no thermometers in those days) by means of cold water applied from the ordinary garden sprinkling-pot, and with the most favorable results.

Early in his practice he resolved to treat the high temperature present in cases of what was then known as Cullen's cynochus, probably typhoid fever. An epidemic was prevailing, and his father not opposing him, he applied cold water to the surface of the bodies of his patients. He soon found that the application was grateful to the patients, and, without knowing anything about how it operated, or in what danger the molecules of the body were on account of high temperature, he continued to apply cold water to the surface of the body, "because the patients wanted it." His father had passed through several epidemics of the disease, and his remark was that he "had never passed through one so well as this," and yet it was one of full average severity.

He had also used cold water in the treatment of peritonitis. The method had been to wring towels from cold water, and apply them directly to the surface of the abdomen. The degree of cold could be very much increased by waving the towels in the air back and forth a few times. Dr. Richards thought that among all the cases which he had treated by means of the application of cold water to the surface of the body, lung trouble had been developed in one or two instances.

#### PORTRAIT OF THE LATE DR. EDMUND RANDOLPH PEASLEE.

The President, on behalf of the executor, presented to the Academy a portrait of the late Dr. Edmund Randolph Peaslee.

On motion, the portrait was accepted by the Academy, with thanks.

Dr. A. C. Post seconded the motion with appropriate remarks.

The Academy then adjourned, to meet in September.

## Correspondence.

### THE LOCAL ADMINISTRATION OF IODINE FOR SYPHILIS, ETC.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—On page 492 of your No. 398, occur some very valuable conclusions on the subject of syphilitic struma, from a paper read by Dr. H. R. Storer before the American Medical Association. The points that struma, the result of syphilis, is comparatively seldom recognized during life, that syphilis causes consumption, and that syphilis is never entirely eradicated from the individual, appear to me among the best made. But, while the radical cure of syphilis is in doubt, we have the power to relieve our patients, and prolong life.

It is for the purpose of bringing to your notice a useful method of administering iodine for tertiary

syphilis and syphilitic struma that I send these few lines. In very many cases I have found that the internal administration of the iodides produced such disagreeable symptoms that my patients quietly suspended the use of the mixtures. Having a case of tertiary orchitis, very sluggish in its course, I applied tincture of iodine to the scrotum. This benefited the condition of the testes, but caused so much irritation of the scrotum that the patient would not permit another application to that region. As he was disagreeably affected by the internal administration of the iodides, and the application of the tincture appeared to have acted more powerfully than a mere counter-irritant would have done, I concluded to apply tincture of iodine externally with a view to its absorption by the skin, and its constitutional effects. The result was highly satisfactory; no iodism was produced, excepting once, when a rather extensive application of the tincture produced some griping and a feeling of fulness about the head, and after two weeks' treatment the testes were free from pain and hardness. In several cases of struma I have applied the tincture of iodine with the effect of improving the appetite and the general health. I am satisfied that all the benefits of iodine may be obtained by this method. A camel's-hair pencil, charged with tincture of iodine, is wiped dry upon some portion of the chest or thighs three times daily, taking care not to paint any one spot often enough to blister or irritate it, unless counter-irritation is indicated. The last dose for each day should be applied at bed-time to the side upon which the patient sleeps, as pressure against the bed prevents the loss of the iodine by evaporation.

In rheumatism, and in any disease where iodine is of use, but where the drug in all of its forms disagrees with the patient on internal administration, it may be applied safely and beneficially by the method I have described.

A. A. HOEHLING, M.D., U. S. N.

LEAGUE ISLAND, PA., July 2, 1878.

## New Instruments.

### A NEW APPARATUS FOR ARRESTING URETHRAL HEMORRHAGE—WITH CASE.

By W. H. BATES, M.D.,

BROOKLYN, N. Y.

THE following is a description of a new apparatus I have had constructed for the purpose of arresting urethral hemorrhage, after operations. It consists of a thin soft rubber pouch, three-fourths of an inch wide, and eight inches long. The outer end has three openings (see wood-cut); two are furnished with stop-



cocks. The centre is traversed by a number five gum elastic catheter, the end of which, after piercing the lower extremity of the pouch, is fastened, and then cut off; over which part of a soft rubber catheter is passed and firmly secured. A stylet passes through

the catheter, and renders introduction easy. The apparatus measures twenty-five millimetres in its flaccid state, and admits of any desired distention. It is used as follows: After the thorough division of the strictures, the instrument is introduced so that the end of the catheter rests in the bladder, or just outside, if preferred; the stylet is then withdrawn and a plug inserted in the end of the catheter. The instrument is then tied in. To the stopcock *b* is attached a fountain syringe (or tube to vessel containing ice-water); to the stopcock *c* is attached rubber tubing for the purpose of conducting the refuse water to a receptacle at the bedside. When all is ready the stopcock *b* is opened and the syringe raised to any desired height, in order to regulate the hydrostatic pressure. The stopcock *c* is opened to regulate the outflow of water. It may be allowed to escape rapidly or slowly, according to the object aimed at, either the lessening of inflammatory action, or the arrest of hemorrhage. The water may be injected with any ordinary syringe, and retained, if the object be simply to control hemorrhage by pressure. I have used it in this manner and find that it works well.

The advantages claimed for this apparatus are, that pressure and cold are applied from within the urethra, and all danger from hemorrhage after internal urethrotomy is obviated; also the danger of urinary infiltration lessened. The soft rubber pouch expanding in all directions fits into the incisions, and the parts are kept open until granulation of the wounds have begun: lessening the risk of recontraction from union of the incised tissue, and shortening the after-treatment. The apparatus may be retained as long as the surgeon thinks desirable, the patient passing his urine at will, through the catheter. I have had two sizes constructed, differing only in length, one for the deep urethra, and the other for the anterior portion. The accompanying wood-cut represents the long one.

The following case is interesting in connection, as showing the value of the apparatus: THOS. C., *æt.* 37 years; patient sent by Dr. F. H. Stuart. Has had difficult micturition for the past twelve years; neglected all treatment. On examination of the urethra, several strictures were found, one situated six inches from meatus urinarius, admitted with difficulty a small whalebone guide. I operated on the 26th of December last, the patient being etherized. I divided all the strictures. There was very little hemorrhage attending the operation. He was immediately placed in bed, with the cold-water coil applied to the penis, and below the scrotum. Slight hemorrhage occurred on urination, but ceased spontaneously. On the third day I introduced a full-sized instrument without hemorrhage. Some swelling of the perineum and scrotum took place, with a discharge of pus from the scrotum (from urinary infiltration). The opening healed readily in a few days. The sound was introduced every third day without difficulty, until the twelfth day, when, on its withdrawal, profuse hemorrhage immediately followed, which was, with the greatest difficulty, arrested; no force was used; the sound passed slowly, and by its own weight. After three days the hemorrhage entirely ceased; there was no ooz-

ing of bloody serum after urination, and none recurring for a week the patient was allowed to get up. Feeling well, the next day he went down-stairs to dinner; that evening, several hours after, he had a hemorrhage which was difficult to control. Hemor-



rhage recurred every few days for FIVE WEEKS, resisting all efforts, both local and constitutional, to arrest it. The patient grew weaker and weaker, so that his life was despaired of. After everything had failed, even injections through a catheter of ferri persulphatis, the above described apparatus, which I had constructed, was used with the happiest effect. All hemorrhage was immediately and permanently arrested, and the patient made a good recovery and remains well.

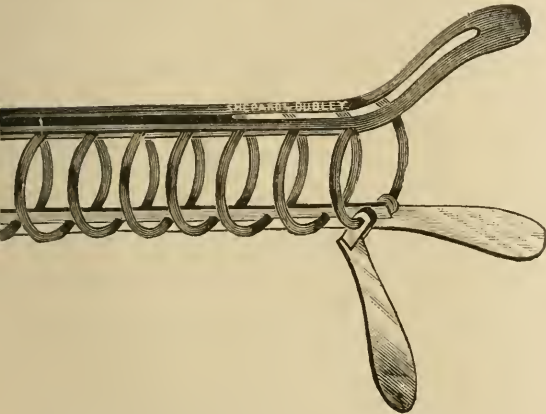
After the first attack of hemorrhage, I learned that he was subject to profuse bleeding from slight causes. He has bled to syncope from the extraction of a tooth, and from epistaxis on several occasions.

### A RING-FOLDING SPECULUM.

By A. SHILAND, M.D.,

WEST TROY, N. Y.

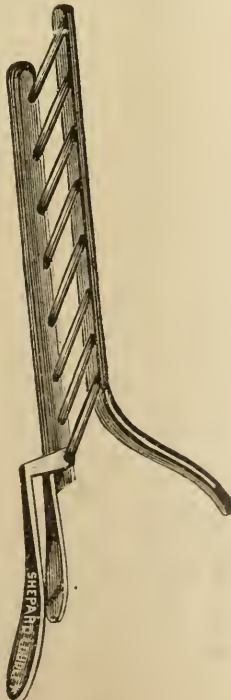
DR. A. SHILAND, of West Troy, has devised a ring-



folding speculum, for which he claims many advantages. The following are extracts from a paper upon the subject read at a recent meeting of the Albany County Medical Society, N. Y.:

The blades are not one-third the width of the ordinary speculum. The series of rings acting with the blades prevent the vaginal walls from closing and obstructing the view, as in the case of the other forms now in use. This speculum is readily introduced, turned, or rotated, without causing pain, thus bringing all parts clearly in view and affording the greatest facility for making applications, using the probe or syringe, and removing unhealthy secretions. Its lightness, compactness, facility of introduction, and the complete view it affords of the vaginal walls and os uteri, are points in its favor which must be apparent.

The position of the patient most favorable for using this speculum, is lying on the back at the end of a lounge or table, having the legs flexed.



The covering of a sheet protects the lady from exposure, as well in this position as any other. When the instrument is closed its small dimensions correspond with the closure of the labia in front. When introduced in the right direction and partially opened, the os will be in view. When entirely open it retains its position. If the os is not seen when the speculum is partially or entirely open, partially close, in order to turn or change the direction to bring it in view.

This speculum should not be closed forcibly, but gradually, and at the same time gently rotated. There is no pain caused in using it in this way, even in vaginitis. By shifting the position of the rings and withdrawing the speculum when partially closed, all parts may be examined and applications made.

It may be effectually cleaned with a brush and soap, or by burning a few drops of alcohol on it.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 21 to July 27, 1878.*

SIMONS, JAS., Lient. Col. and Surgeon. Granted leave of absence for twenty days. S. O., 157, A. G. O., July 20, 1878.

JANEWAY, J. H., Major and Surgeon. Granted leave of absence for three months. S. O., 160, A. G. O., July 24, 1878.

CALDWELL, D. G., Capt. and Asst. Surgeon. To report to Comdg. General, Dept. of the East, for assignment. S. O., 157, A. G. O., C. S. Assigned to duty as Post-Surgeon at Fort Independence, Mass. S. O., 128, Dept. of the East, July 24, 1878.

CRONKHITE, H. M., Capt. and Asst. Surgeon. To report to Comdg. General, Dept. of the East, for assignment. S. O., 160, C. S., A. G. O.

WILSON, W. J., Capt. and Asst. Surgeon. To report to Comdg. General, Dept. of the East, for assignment to duty. S. O., 160, C. S., A. G. O.

BIART, V., 1st Lient. and Asst. Surgeon. To report to Comdg. General, Dept. of the Missouri, for assignment to duty. S. O., 160, C. S., A. G. O.

GRAY, WM. W., 1st Lient. and Asst. Surgeon. Relieved from duty at Willet's Point, N. Y. H., and to report in person to Comdg. General, Dept. of the Columbia, for assignment to duty. S. O., 160, C. S., A. G. O.

BRECHEMIN, L., 1st Lient. and Asst. Surgeon. To report to Comdg. General, Dept. of Dakota, for assignment to duty. S. O., 160, C. S., A. G. O.

LA GARDE, L. A., 1st Lient. and Asst. Surgeon. To report to Comdg. General, Dept. of the East, for assignment to duty. S. O., 160, C. S., A. G. O.

**PHIAPISM CURED BY LEECHES.**—Dr. Neufeld, of Fordon, reports a case of very intense priapism, that resisted all the usual methods of treatment for three weeks, but finally yielded to leeches applied on the root of the penis and the perineum. The patient was a young man, twenty years of age, who had been scrofulous from his childhood, and at the time was suffering from decided leukæmia of the splenic type, a condition that would *a priori* seem to decidedly counterindicate bloodletting. The priapism did not return after the application of the leeches. The patient succumbed to the leukæmia a year and a half afterwards.—*Allg. Med. Cent.-Zeit.*, No. 38.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 27, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| July 20, 1878.... | 0             | 8              | 51             | 1                          | 9        | 19          | 0          |
| July 27, 1878.... | 0             | 10             | 36             | 2                          | 2        | 18          | 0          |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., July 27, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during the past week under the National Quarantine Act:

*New Orleans.*—About the 12th inst., cases of yellow fever began to occur in New Orleans; at first they were at one focus of infection only, but others soon appeared at different points, and up to yesterday evening thirty-seven cases and seventeen deaths had been reported to the State Board of Health. So far, the Board have been unable to trace the outbreak to a foreign source. Carbolic acid disinfection is being vigorously carried out at all infected points, and the remarkable success which has attended the efforts of the Board in this direction in the past few years gives hope of preventing the outbreak from assuming epidemic proportions. Three or four persons from New Orleans have died of yellow fever at points above that place on the Mississippi.

*Brooklyn.*—No new cases at Navy Yard since last Saturday's report.

*Key West.*—From 10th inst. to noon to-day six new cases of yellow fever in the harbor, and three in the city, have occurred.

*Havana.*—During the week ending July 13th, there were ninety-seven deaths from yellow fever and twenty-two from small-pox.

*Matanzas.*—Advices to 19th show increased cases and increased ratio of deaths.

*Japan.*—Occasional cases of cholera during winter and spring, to June 19, 1878, at Yokohama and vicinity, show the poison of the disease has survived the winter. The epidemic of last September, October, and November extended to all parts of the empire, with a mortality of 7,967 out of a total of 13,710 cases, or 581 deaths to 1,000 cases. No means yet instituted in Japan to prevent importation of the disease from China, where it exists, and where the famine furnishes most favorable conditions for its reappearance in a more malignant form.\*

*Calcutta.*—Twenty-two deaths from cholera during week ending May 25th.

*Bombay.*—Twenty-nine deaths from cholera during week ending May 28th.

Reports received from other places indicate good health.—JNO. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

SUSPENSION BY ADHESIVE PLASTER IN THE PLASTER-OF-PARIS TREATMENT OF POTT'S DISEASE.—DR. JNO.

J. Reid, in the July number of the *N. Y. Medical Journal*, describes a method of suspension by adhesive plaster as a substitute for the ordinary apparatus used in the treatment of Pott's disease. It consists in applying the strips of adhesive plaster to either side of the body, binding them in position by a roller of soft gauze, which remains in position, and takes the place of the knitted shirt. The strips of adhesive plaster are subsequently removed by an ingenious device after the plaster has hardened.

Dr. Reid also describes a method of independent suspension of the head in order to avoid the possibility of injury to caries of cervical or upper dorsal vertebrae during extension.

A STRAWBERRY FUNGUS is said to have been discovered by Dr. Frank E. Beckwith, of this city. Microscopical examination revealed deficiency of coloring matter, and a little shrinking of the cells, with a loss of nuclei or nucleoli in the *berry*; brown granules replacing the chlorophyl, though not choking up the cells of the vessels, in the *stems*; loss of the central spaces of cells and vessels in the *fibrils*; everywhere a brown staining, with slight loss of cell contents. This atrophy is ascribed to the presence of a fungus, whose mycelium was found among the cells and in the intercellular spaces, undoubtedly living in and receiving its nourishment from the cell protoplasm, absorbing the cell contents and membrane, but not the cellulose wall, the latter being brown instead of pale. Only the mycelium and spore-bearers, no spores, were found in the specimens examined. This fungus belongs to the mucedines, a species of the *genus* *peronospora*. The disease may be called "brown parasitic atrophy," or "brown strawberry rust." This may turn out to be an important discovery, since the presence of the fungus may cause a very valuable industry to be seriously damaged, and means for prevention and cure must be sought at once. Whether light, heat, air, moisture, and soil are the prime factors, by lowering the vitality of the plant so as to furnish a favorable nidus for the fungus, or whether the fungus itself is the sole cause of this degeneration, is a question which must be settled by properly conducted experiments on the part of the practical cultivator.

FEVER IN ST. PETERSBURG.—Weekly mortality returns are now made from St. Petersburg, and present a terrible commentary upon the sanitary condition of that city. Taking the first thirteen weeks of the present year, 9,392 deaths are recorded. The population being 669,741, this is equal to an annual death-rate of 56.1 per 1,000 persons living, or considerably more than double the rate of mortality which prevailed during the same period in London. It appears that of these deaths no less than 3,761, or 40 per cent., resulted from the seven principal zymotic diseases, including 2,273 from fever, 979 from diarrhoea, 162 from diphtheria, 121 from scarlet fever, 115 from small-pox, 62 from measles, and 43 from whooping-cough. The annual death-rate from these zymotic diseases was equal to more than 22 per 1,000, while from scarlet fever alone it was 13.6. Of the 2,273 deaths referred to fever, 1,029 were enteric or typhoid, 739 typhus, and 505 "typhus recurrens." We are so accustomed to look upon an annual death-rate of 1 per 1,000 from fever in large towns as undoubted evidence of hygienic neglect, that it is difficult to realize what the sanitary condition of a city must be, which suffers from an annual death-rate of 13.6 per 1,000 from this cause. The fever rate at Liverpool in its worst days never exceeded 2 per 1,000.

\* Dr. D. B. Simmons, Chairman Health Board, Yokohama, etc.



## Original Lectures.

## LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

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## LECTURE V.

SUMMARY:—LESIONS OF THE BASIS CEREBRI; PHYSIOLOGICAL ANATOMY OF THE PARTS INVOLVED. 1. LESIONS OF THE PONS VAROLII. 2. LESIONS OF THE CRURA CEREBRI. 3. LESIONS OF THE BASAL PARTS FORWARD OF THE CRURA; HEMIOPIA AND NEURO-RETINITIS.

GENTLEMEN:—Leaving the region of the medulla, we are brought to those numerous and important parts which constitute the encephalon. I purpose considering in some detail, in this and subsequent lectures, the localization of disease in the chief subdivisions of this mass, but in this lecture I can only enunciate some general pathological propositions relative to the encephalon as a whole, and study the lesions of one of its parts.

For our purpose I make the following subdivisions of the encephalon—a semi-physiological classification:

1. The basis cerebri, including all the parts which lie upon the base of the skull, but more especially the pons Varolii, crura cerebri, their attached nerves, and the optic and olfactory apparatuses.

2. The great basal ganglia; *i.e.*, the thalamus opticus, nucleus caudatus, nucleus lenticularis, and the corpus quadrigeminum.

3. The white substance of the hemispheres, especially the internal capsule.

4. The cortex cerebri.

5. The cerebellum.

The general pathological propositions relative to these parts are as follows:

1. Lesions of the basis cerebri, especially if involving the pons and crura, give rise to the following symptoms: paralysis (often of crossed variety), anæsthesia in the face and limbs, impairment of equilibrium, changes within the eyes; no psychical symptoms.

2. Lesions of the great basal ganglia probably produce no symptoms unless by encroaching upon the internal capsule which passes near them. An exception may be the nucleus caudatus.

3. Lesions of the white centre of the hemispheres produce no symptoms when they do not involve the parts composing the internal capsule; if the anterior portion of this capsule be injured, we observe paralysis, if its posterior part, anæsthesia.

4. Lesions of the cortex cerebri produce, when located anteriorly, psychical symptoms; when located in the median regions, paralysis of an imperfect kind. and when situated posteriorly, no symptoms at all (sensory symptoms in animals).

5. Lesions of the cerebellum produce no symptoms except by involving adjacent parts containing important motor and sensory tracts; thus giving rise to irregular paralyses, changes in the optic apparatus, symptoms of irritation of the vagus nerve, etc.

6. Lesions in one lateral half of any part of the

encephalon produce motor and sensory symptoms in the side of the body opposite to the lesion. When the lesion is in one-half of the basis cerebri some symptoms (direct symptoms) are found in the side of the face and head corresponding to the lesion, others in the opposite half of the body (crossed paralysis).

7. Lesions in the median line cause symptoms to appear in both sides of the body.

8. Any intracranial lesion which acts in such a way as to increase the intracranial pressure may produce (in addition to other symptoms) the condition known as choked disk, or neuro-retinitis.

With these preliminary general statements, I pass to the study of the first of the subdivisions—the basis cerebri:

## PHYSIOLOGICAL ANATOMY.

To be very logical, the medulla oblongata, pons, and crura should be grouped together under this denomination, but for clinical purposes I leave the medulla with the spinal cord, and add to the basis cerebri the parts which lie in front of the crura, *viz.*, the optic tracts and nerves and the olfactory apparatus.

As heretofore, I assume that you are familiar with the descriptive anatomy of the parts; and what I wish you particularly to understand is the arrangement of sensory and motor tracts, of nerves, and of ganglia in the basis cerebri.

The projecting mass we call the pons is largely made up of numerous transverse nerve-fibres which connect it with the two halves of the cerebellum, and which are not, under our present knowledge, of special physiological or pathological importance. In the anterior (inferior) half of the pons, lying under these transverse fibres, and partly separated into bundles by them, we find the great motor or peduncular tract, the continuation upward of the anterior pyramids and of the central motor fasciculi of the medulla. This tract is easily seen with the naked eye, broken up into a number of smaller fasciculi by transverse fibres, and it can be traced upward a long distance. In the posterior (superior) region of the pons, under the floor of the fourth ventricle, near the median line, there is a lengthened mass of motor gray matter, whence arise the original fibres of the sixth, seventh, and motor root of the trigeminal nerves. Laterally, in the posterior part of the pons, are sensory tracts, some directly continuous with the brain above, others more particularly in relation with the sensory root of the trigeminal, which radiates to an immense extent up and down in the basis cerebri and below it.

In the crura cerebri we find substantially the same parts not covered over by transverse fibres. The anterior portion of the crura consists of the great motor or peduncular tract just issued above from the white matter and basal ganglia of the cerebrum. Posteriorly are sensory tracts and masses of gray matter in intimate relation with the thalamus opticus and corpus quadrigeminum. The final (upper) extremity of the elongated mass of gray matter giving rise to motor nerves is found here, posteriorly, just beneath the aqueduct of Sylvius, in the shape of the common nucleus of the third and fourth nerves. Let us finally bear in mind that the sixth, seventh, and fifth nerves are intimately connected with the pons Varolii; the third and fourth nerves, and the optic tracts are associated with the crura.

The posterior portions of the crura and pons constitute the greater part of what Meynert designates the *tegmenum cruris cerebri*, while their anterior parts contribute to form his *basis cruris cerebri*.

All these parts lie in the middle fossæ of the cra-

\* Delivered at the College of Physicians and Surgeons during the months of December, 1877, and January, 1878.

nium, the chiasm of the optic nerve occupying their forward extremity. In the anterior fosse we find only the olfactory commissures and ganglia, together with the under surface of the frontal lobes of the cerebrum.

As regards the physiology of these parts, the mesencephalon of some authors, we may sum it up as follows:

The anterior part of the crura, pons (apart from the superficial transverse fibres), and medulla oblongata, contains the chief motor tract connecting the superior centres with the spinal cord. This motor tract is made up of nerve fibres, which convey excitations chiefly in a centrifugal direction: many of them, derived from the motor regions of the cortex, constitute the anterior portion of the internal capsule, and then enter the crura, traverse the pons, go to make up the anterior pyramids of the medulla, partially and irregularly decussate at the pyramidal decussation, and finally are found in the postero-lateral and anterior columns of the spinal cord. This most important bundle of nerves may be designated the *direct cerebral motor tract*. Another portion of the anterior region of the mesencephalon is likewise motor in function, and is made up of bundles of fibres derived from the nucleus caudatus and nucleus lenticularis. These bundles can be traced downward into the middle regions of the medulla, but their connection with the spinal cord is yet uncertain. The posterior region of the pons and crura, composed largely of gray matter, is partly sensory and partly motor. It is motor only in so far as it includes the nuclei of origin of the upper cranial nerves, the seventh, sixth, motor root of fifth, the fourth and third. You will remember that the nuclei of these nerves are all to be found near the median line, underneath the floor of the fourth ventricle or its continuation, the aqueduct of Sylvius. The sensory parts of the mesencephalon embrace the regions lying external to these nerves, giving origin to the eighth and fifth pairs of nerves; the latter presenting an enormous expansion in its origin; its upper roots extending as high as the region of the corpus quadrigeminum, the lowest probably as far down as the upper part of the spinal cord.

The posterior regions of the mesencephalon, the *tegmentum cruris*, are the seat of the reflex actions of the most important character, and they probably serve also for the elaboration, if not perception of sensory impressions from the periphery. At the upper part of the medulla and the lower part of the pons in this region is a mass of gray matter which controls the vaso-motor phenomena throughout the body. It is highly probable that some severe convulsive manifestations, such as epileptic and tetanic seizures, are due to morbid processes in the posterior part of the pons and crura.

Finally, with respect to the physiology of the optic apparatus lying at the base of the brain. I will only say that I am disposed to accept the doctrine of semi-decussation of the optic tracts in the chiasm, and shall use this hypothesis in explanation of symptoms.

#### SYMPTOMS OF LESIONS OF THE BASIS CEREBRI.

Before taking up systematically the study of the semeiology of basal lesions, allow me to fully discuss one of the most frequent symptoms of all these lesions, viz., crossed paralysis. I wish to study crossed paralysis in general, previous to speaking of it under each heading of the remainder of this lecture, partly to impress you with its importance, and partly to avoid future digressions and repetitions. By crossed paralysis (*paralyse alterne* of the French) is meant a form of paralysis in which the symptoms immediately caused by a basal

lesion are on one side of the face or head and on the same side as the lesion, while the bodily symptoms are on the opposite side of the median line, viz., on the side opposite the lesion. As thus enunciated, in principle, it is at once apparent that the phenomena of crossed paralysis may, according to the seat of a lesion at the base of the brain, involve, on the one hand, any one of the cranial nerves, and on the other the limbs of the opposite side. This conception is verified by clinical and post-mortem experience, cases of crossed paralysis of every possible variety being on record. The most striking and best known, however, are those presenting what I may be allowed to term the third nerve and body type, the trigeminus and body type, and the seventh nerve and body type. It is to the late Prof. Romberg, of Berlin, that we owe the exact definition and conception of the principle of crossed paralysis, while Prof. Gubler, of Paris, first made a thorough study of the seventh nerve and body type.

#### 1. LESIONS OF THE PONS VAROLII.

Diffused lesions of the pons produce, when fully developed, partial anæsthesia and paresis on both sides of the face, generalized paralysis below the neck, with or without anæsthesia, the latter symptom appearing only if the deeper, posterior, portions of the organ are involved. We also observe inability to maintain equilibrium, without ataxia, sometimes convulsions, or contracted pupils, or neuro-retinitis. If the lesion advance forward beyond the pons, new symptoms, such as will be described further on, are superadded.

Localized lesions of the pons may occupy on either side of the median line one of four locations.

*a.* In the anterior portions of the pons forward of an imaginary transverse line passing through the origin of the trigemini. As shown by Gubler, this lesion does not produce crossed paralysis of the seventh nerve and body type, but both the face and body are paralyzed on the same side, i.e., on the side opposite the lesion, just as in cerebral lesions, strictly speaking. A point for differential diagnosis is that when the cerebrum is injured, there is almost invariably conjugate deviation of the head and eyes toward the affected hemisphere; in pons lesions nothing of the kind occurs.

*b.* A lesion placed so as to injure the anterior (inferior) region of the pons on one side back of the imaginary line above mentioned, will cause typical crossed paralysis, i.e., the facial nerve will be paralyzed on the same side as the lesion, and the extremities on the opposite side. For example, if the right face and the left arm and leg be palsied in a patient, we recognize crossed paralysis of the seventh nerve and body type, and may diagnose with positiveness a lesion placed as above described. There is, perhaps, no more positive example of constant relation of lesion to symptoms in the whole of nervous pathology.

In *a* and *b*, if the trunk of the trigemini be involved in the disease, the face will be more or less anæsthetic and neuralgic on the same side as the facial palsy and the lesion. From a study of cases of these two kinds, Gubler drew the anatomical conclusion that the paths which connect the cerebrum with the nuclei of the seventh nerve decussate at about the middle of the pons, i.e., some distance above the nuclei of these nerves. A useful diagram for studying the principle of crossed paralysis, and of this type in particular, you will find in Dr. Hammond's *Treatise on Diseases of the Nervous System*, ed. 1876, p. 99.

*c.* Lesions occupying the posterior region of the



pons above its middle. Besides paralysis of the face and body on the side opposite the lesion, we are likely to have anaesthesia of the paralyzed parts, even amounting to hemi-anaesthesia (without involvement of the special senses.) Other symptoms often produced are epileptic convulsions, impairment of sight from neuro-retinitis, and various forms of paralysis of ocular muscles.

*d.* Lesions in the posterior part of the pons, below the imaginary transverse line through its equator, may likewise, if extensive, without crossing the median line, cause hemi-anaesthesia of common sensory nerves, but will also produce crossed palsy, of face on same side as the lesion, of the body on the opposite side. As in *c*, we may have neuro-retinitis, epileptic seizures, with, besides, palsy of the sixth nerve, and bulbar symptoms if the lesion involve the medulla.

*e.* A lesion situated very laterally in the pons, or so placed as to irritate the lateral peduncles of the cerebellum, will (as shown by a number of cases) give rise to rotatory movements of the patient around the long axis of his body toward the side of the lesion. Of course this symptom appears with others, which are more or less in accord with the above symptom-groups.

## 2. LESIONS OF THE CRURA CEREBRI.

*a.* Lesions of the crus proper on one side of the median line. The symptoms of such a lesion are exceedingly definite, and might even be designated pathognomonic. The third nerve, its trunk or origin, is involved in the disease or compressed, as well as the great motor tract which, lower down, is to decussate. Consequently we observe a crossed paralysis of the third nerve and body type; *i. e.*, if the right motor oculi and the left extremities be paralyzed in a patient, we may feel sure that he has a lesion under or in the right crus cerebri. Prof. Rosenthal, of Vienna, states that in such cases the electro-muscular contractility (to faradism) is reduced in the paralyzed limbs, contrary to what obtains in hemispheric lesions. You will remember that the optic tract curves around the crus on either side, and it at times happens that symptoms characteristic of injury to one optic tract present themselves. These symptoms will be considered later.

*b.* Lesions deeply placed in the crus, on one side of the median line. In addition to the above described crossed paralysis, we shall probably observe hemi-anaesthesia of common sensation only on the side opposite the lesion. There may be convulsions, choreiform spasm, hemiopia, or neuro-retinitis.

*c.* Lesions placed in the median line, or involving both crura more or less. The symptoms will be, in case of lesion situated anteriorly (inferiorly), wholly motor, *viz.*: paralysis of both third nerves, and of both sides of the body below the neck. In case of lesion involving the tegmentum cruris, marked disorders of sensibility, neuro-retinitis, and convulsions will occur.

Extension of the disease backward to the pons will be characterized by symptoms (detailed in first paragraph) referable to the trigeminus and seventh nerves.

It has been stated that the bladder is paralyzed in severe lesions of the crura, but this lacks confirmation.

It might not be ill to add that patients having lesions in the locations defined above, do not present, strictly speaking, cerebral symptoms. They preserve their intellect, are not aphasic, and the special senses (except the sense of sight) are not involved.

## 3. LESIONS SITUATED AT THE BASE OF THE BRAIN ANTERIORLY TO THE CRURA.

These are rare, but give rise, when considerable, to noteworthy symptoms.

*a.* Lesions involving one of the optic tracts posterior to the chiasm. A small lesion in this location will produce hemiopia, a symptom of such importance and scientific interest as to require special mention. If the lesion extend, it may involve the chiasm of the optic nerves, or the tract of the opposite side, or the crura cerebri, thus either destroying the special symptom, hemiopia, or adding to it the signs of crossed paralysis of third nerve and body type.

By hemiopia is meant a condition of the organs of vision such that only one-half (vertically divided) of objects are seen by the patient. In other words, the fields of vision of the two eyes are darkened in one of their halves. Usually the vertical line of division between the lighted and darkened half-fields is exactly in the centre of vision. The hemiopia affects the two eyes always, and is distributed differently in each eye under the determining influence of the exact location of lesions about the optic tracts and chiasm. The immediate cause of hemiopia is interruption in the centripetal conducting power of certain bundles of nerve-fibres in the optic nerves and tracts; hence it has been found necessary to frame a theory of the course of fibres in the optic apparatus. The hypothesis of Wollaston, that of semi-decussation, is the one which is generally adopted to-day, and I append a diagram illustrating it, and the positions of lesions producing the varieties of hemiopia. A satisfactory anatomical demonstration of the truth of the theory of semi-decussation has not yet been given, and some few facts and authorities are opposed to it, but I think that I can assure you that in the present state of science it is the one which best serves the purposes of the physiologist and the clinical observer.

According to this hypothesis nerve-fibres derived from the deep origins of one (the left) optic tract, combine to form that bundle and extend undivided as far as the chiasm. As shown in Fig. 6 at the chiasm some of the fibres of the tract (the external group possibly) pass directly into the external portions of the left optic nerve, and are distributed to the external (temporal) half of the left retina. The remaining nerve-fibres of the left optic tract cross the median line in the middle of the chiasm, decussating with the similar fibres derived from the right tract, then enter the right optic nerve, and are distributed to the inner (nasal) half of the right eye. Thus it is seen that the nasal half of the right eye and the temporal half of the left eye are anatomically and physiologically homologous.

The same explanation applies to the course of fibres which form the right optic tract. Besides these main bundles of fibres, a few filaments are supposed to connect the two retinæ, passing through the optic nerves and the anterior border of the chiasm without decussation, while others connect the two sets of tubercula quadrigemina by way of the optic tracts and the posterior border of the chiasm. These commissural fibres may, however, be left out of consideration in the study of hemiopia.

If now we bear in mind this distribution of fibres in the optic apparatus we can by the aid of Fig. 6 demonstrate the mechanism of each of the four forms of hemiopia, *viz.*: right and left lateral hemiopia (shaded parts A and B), bi-temporal and nasal hemiopia.

Lateral hemiopia, *i. e.*, that form of hemiopia in which the homologous parts of the two eyes (temporal

half of the left retina and the nasal half of the right) lose their function, is invariably produced by a lesion destroying one optic tract—the left in the diagram. *Vice versa*, destruction of any part of the right optic

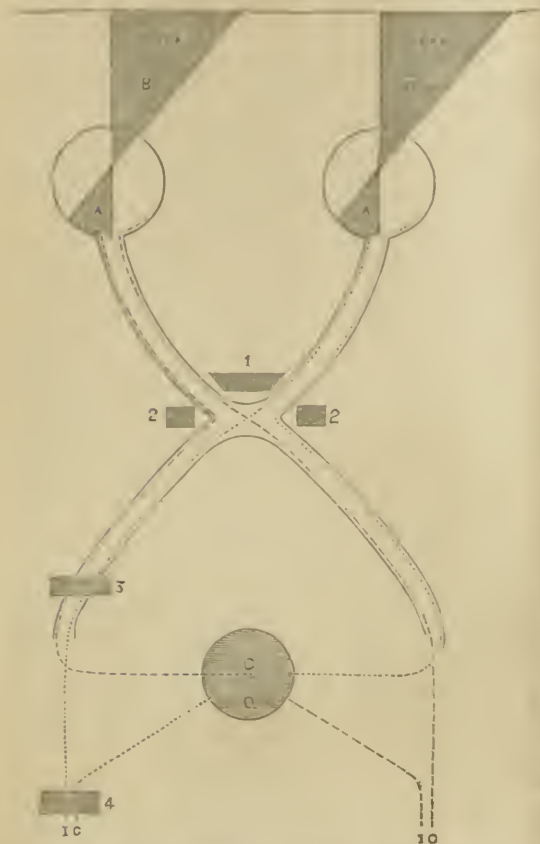


FIG. 6.—Diagram explanatory of hemiopia. The shaded intra- and extra-ocular parts, A and B, indicate the observation in right lateral or homonymous hemiopia, as caused by lesion 1, so placed as to destroy one optic tract. In that tract are two sets of nerve fibres, one represented by a dotted line supplying the nasal half of right retina, the other fibres by a broken line supplying the outer or temporal half of the left eye. As visual lines cross in the eye the observation of the half-fields is the opposite. Lesion No. 1, anterior to chiasm, produces blindness of inner half of each retina, and consequently bi-temporal hemiopia. Lesion No. 2, pressing upon the sides of the chiasm, injure fibres supplying the temporal half of each retina, and cause bi-nasal hemiopia. C, c, corpus quadrigemellum, in which Prof. Charcot believes a second partial decussation takes place, i. e. Intra-ocular capsule containing, in Charcot's hypothesis, all the fibres coming from the eye of the opposite side. 4, Lesion of internal capsule injuring all the fibres connected with the right retina, and causing amblyopia of the right eye.

tract would cause blindness in the temporal half of the right retina and in the nasal half of the left. Inasmuch as all visual rays cross in the eye owing to refraction in the lens, the hemiopia, i. e., the obscuration of the half-fields of vision is on the opposite side from the blind half-retina. For example, in the first instance described above, and illustrated in the diagram, the hemiopia is of the form designated right lateral (or homonymous) hemiopia, and is produced by a lesion involving the left tractus opticus.

Binocular temporal hemiopia can be caused only by a lesion placed (as 1 in Fig. 6) in front of the chiasm, cutting off the fibres which supply the two nasal fields.

Binocular nasal hemiopia is produced by a double lesion compressing or destroying the outer parts of the chiasm (2 in Fig. 6), which are imbedded fibres supplying the temporal halves of both retinae. Prof.

Knapp, of New York, has placed a remarkable case of this kind on record, in which the lesion consisted of thickened and enlarged internal carotid arteries. I need hardly add that lesions involving one optic nerve in front of the chiasm cannot give rise to hemiopia; they produce monocular loss of vision.

It should not be forgotten that lesions lying in front of the crura and behind the chiasm may press upon the motor nerves of the eye as they traverse the middle fossa of the cranium on their way to the sphenoidal fissure, thus producing a variety of paralytic symptoms about one or both eyes.

b. Lesions in the anterior cranial fossa, anterior to the chiasma. When unilateral, such a lesion involves the olfactory tract and ganglion, thereby producing anosmia, or loss of smell, on the same side as the lesion, with or without subjective odors.

If the lesion be large, it may act upon the nucleus caudatus or other motor parts of the encephalon, and cause common hemiplegia (face and limbs) on the opposite side. Thus we may have a last form of crossed paralysis, of the olfactory nerve and body type. With a lesion involving both sides of the median line, complete double anosmia, with or without generalized paresis of the extremities, would be met with.

There is one more symptom common to all lesions of the basis cerebri, but produced also at times by any intracranial disease which causes pressure. I mean neuro-retinitis or choked disks. This is always (?) bilateral, though it may be more marked in one eye, and is esteemed one of the most important signs of gross encephalic disease, especially of tumors. In neuro-retinitis, ophthalmoscopic examination shows that the optic nerves are swollen, and they may project considerably (measurably) above the level of the surrounding retina; the margin of the disk is obscured or wholly lost, and no line of demarcation can be made out between the nerve and the retina. The blood-vessels present striking anomalies, the arteries being relatively small, the veins positively enlarged and tortuous; there are often small hemorrhages in the retina, round about the disk. Strange to say, very good sight may coexist with this lesion. This condition of choked disks may last a number of weeks (much longer in cases of tumor of the brain), and then subside, giving place to the appearances of atrophy of the optic nerves, viz., an unnatural whiteness or bluish whiteness of the disk, smallness of the retinal vessels, and unusual sharpness of the outline of the disk, with impaired vision.

## CLINICAL LECTURE,

DELIVERED AT THE UNIVERSITY HOSPITAL.

By WM. PEPPER, A.M., M.D.,

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(Reported for THE MEDICAL RECORD.)

- I. *Sciatica*.
- II. *Post-Pharyngeal Abscess*.
- III. *Thickening of the Coats of the Colon*.

### SCIATICA.

This disease is, as you all know, one of the forms of neuralgia. I have always doubted the propriety of considering neuralgia as a purely nervous disease. The more we study the phenomena of disease the less inclined we are to believe in the existence of special diseases. As an illustration of this point I have the following history to present to you:



A. W., a robust sailor, always enjoyed good health until last summer, when he was sick for a space of six weeks or more. The principal symptoms of his attack were pain in the neighborhood of the sacrum and in the hip behind the head of the thigh bone, thence radiating all the way down to the ankle. The pain was paroxysmal in its nature, and was always worse at night. Cramps and twitchings of the muscles of the calves of the leg were frequent. These symptoms were particularly marked in the right leg, the right foot at times feeling numb and dead. There was no swelling of his feet at any time. The right leg was not as strong as the left.

The above case is evidently one of sciatica, an affection of the largest nerve-trunk of the body. The symptoms of sciatica come on sometimes suddenly and at other times very slowly, beginning so gradually that the earlier stages are very often entirely overlooked. The spot at which the pain begins depends upon the point of involvement of the muscle. The pain may, in some instances, extend all the way up the leg to the crest of the ilium, thus involving the branches of the sciatic nerve. This pain is scarcely ever continuous, but comes on in paroxysms after longer or shorter intervals, as the case may be. Very often the least motion of the body will serve to bring on an attack. If you touch the patient he will cry out in agony. Changes of weather are believed to produce paroxysms of pain. In still other cases the pain is periodic, and will differ in extent upon different occasions. As a general thing it is localized high up, and radiates down the branches of the main trunk. The sensations of the affected part are perverted, with numbness and tingling of the flesh. Occasionally the sensory function is permanently impaired. Again, there may be distinct loss of power. If this symptom does not exist at first the patient gradually finds it out.

Another prominent symptom is spasm, which usually affects the calf and extensor muscles of the leg and thigh. The leg is often rendered very sensitive to cold. The nutrition of the muscles is destroyed, and they waste away. There is generally pain and tenderness at some one or more points over the course of the nerve-trunk. The two points where the pain is most generally localized are at the sacro-sciatic notch and just behind the head of the femur. Sciatica is, as you may suppose, a very crippling and agonizing disease.

Among the causes of sciatica may be enumerated all the influences which combine to produce neuralgic affections. A very frequent cause is a chronic malaria, which is very likely to affect all the nerves of the body. In other instances the origin of the symptoms would seem to have been associated with the absorption of lead, copper, or mercury in some of their various forms. In chronic lead poisoning there is generally a neuralgia of almost all the nerves of the body. A third cause is inflammation of the sheath of the nerve, which becomes thickened, and so compresses the nerve-fibres. Rheumatism very often acts in this way, a rheumatic inflammation of the nerve-sheath or nerve-substance standing at the root of a great many cases of the most obstinate and painful sciatica.

In this case there is very decided inflammation of the fibrinous sheath of the nerve on the right side. The sheath and cellular tissue are both pinched, rendering the parts very painful and tender to the touch. The sensory branches, when pressed, give rise to the tingling. The gravity of the symptoms will, of course, depend upon the extent of the inflammation. If there is any neuritis, the loss of power and sensibility will of course be greater.

Finally, as regards treatment, in a case of chronic malaria with chills and fever followed by neuralgia, the best treatment would undoubtedly be by quinia, iron, arsenic, and belladonna. In many cases I have found that more relief was afforded by large doses of arsenic than by any other remedy. Occasionally I have injected the arsenic under the skin. If the sciatica be the result of lead poisoning the appropriate treatment for that condition should be pursued.

When there is distinct local inflammation I am accustomed to treat the disease with large doses of iodide of potassium and minute doses of the bichloride of mercury. As there is not much pressure exerted upon the nerve-trunks in this case, the iodide of potassium will suffice. If we desire to cause absorption of inflammatory matters inside the sheath, the best way to do so is by means of severe blistering or by the use of the actual cautery. The actual cautery, in particular, has great absorbent action, and powerfully relieves over-sensibility of the nerves. In this present instance I have been using the actual cautery with the greatest success at the points where the pain has been most marked. Another excellent treatment is by hypodermic injections of morphia and atropia right down into the adjacent muscular structures. For this purpose we are in the habit of using here from one-sixth to one-fourth of a grain of morphia and from one-ninetieth to one-sixtieth of a grain of atropia. In employing this formula you must be careful as the disease subsides that the opium habit is broken. Indeed, the formation of such a habit should be guarded against by intermitting the treatment from time to time. In still other cases, again, where the localized pain has been intense, I have derived most excellent results from the hypodermic injection of from eight to twelve minims of chloroform, taking great care to keep the needle out of the way of the arteries. Though incomparable as a temporary destroyer of pain, the effects of the chloroform are not very permanent. Before leaving the subject I may refer to the use of electricity in these cases. Galvanism is very quick in some instances to relieve pain. The mode of application should be with the positive pole at the seat of the pain and the negative pole along the nerve-trunk. Where the muscles have wasted to any great extent the faradic current is the best. By some of the above-mentioned agents you will generally be able to cut short the course of the disease.

#### POST-PHARYNGEAL ABSCESS.

This young man has been very ill, indeed, but is at last making a satisfactory recovery. Post-pharyngeal abscess is a collection of pus behind the posterior wall of the pharynx and in the adjacent cellular tissue. The disease is by far most frequent in children. The abscess may form in any part of the posterior wall of the pharynx, but it generally will be found in the cervical region. Here it is very near the body of the second dorsal vertebra. Upon examining the man's throat, although the acute symptoms have all passed away, you will notice a very marked bulging of the mucous membrane. If this obstruction is high up it is very likely to impede respiration, while if it exists at about the level of the hyoid bone both breathing and swallowing will be interfered with. If its site be behind the larynx the dyspnoea will be most terrible, and nothing but liquid food can be swallowed.

\* The causes of this affection are numerous. It very often makes its appearance in strumous children, without any apparent cause. The symptoms very closely simulate those of croup, and the presence of the ab-

cess is altogether overlooked. Occasionally post-pharyngeal abscess follows scarlet fever or acute angina. In other instances it is connected with caries of the vertebrae.

This patient is a miner and 22 years of age. Ever since his sixteenth year he has suffered from the formation and falling of thick, hard crusts from the posterior nares. Fourteen weeks ago he had a sharp pain in his head, followed, in the course of several weeks, by marked stiffness of the neck. Four weeks ago he had considerable pain in swallowing and in the right side of his head. All these symptoms have plainly been those of chronic post-nasal catarrh. As the case increased in severity, and the abscess began to form, persistent headache came on and inability to turn the neck, the swelling in the left carotid region forming a hard mass. The difficulty in swallowing increased until the patient could swallow nothing but liquids.

In acute cases of this disease there is usually fever, dyspnoea, and rigidity of the neck. Very often there is fulness behind one or other angle of the jaw and great difficulty in swallowing. In this instance I found the arches of the fauces entirely filled up by a rounded lump. The skin was drawn so tense over this swelling that it was hard to distinguish any fluctuation at all.

As concerns treatment, the only thing to be done, of course, and what was done in this case, is to evacuate the abscess at once by means of a free incision through the wall of the pharynx. In making this incision be sure to protect all parts of the bistoury but its cutting point. The incision will be followed by a gush of pus, and the distressing symptoms will be at once relieved.

With regard to the cause of the attack in this case, it has been somewhat difficult to reach any positive conclusion. It was most probably due to the ulcerative disease in the post nasal space—some deep-seated ulceration of the mucous membrane or bone. I was fearful lest the case should be one of incipient caries of the cervical vertebrae. Since the man came first into the wards he has improved very markedly. The swelling has disappeared with the greatest rapidity, and the stiffness is fast going away. In two weeks he has gained fifteen pounds and a half in weight. In two days out of the fifteen he gained flesh at the rate of three pounds daily. The abscess is still discharging, the cut slowly healing. There is still some sense of fulness over the posterior wall of the pharynx. I hope we shall soon be able to send the man away entirely cured.

#### THICKENING OF THE COATS OF THE COLON.

The patient is a sea-captain, thirty years of age, and was admitted to the hospital four days ago. Many years since he had a severe attack of small-pox, the marks of which he bears. From the time of that attack until four years ago he enjoyed perfect health. In the summer of 1874 he had a sudden attack of very violent pain in the left groin. This attack was followed in successive summers by four others of the same kind, all in the same place. The pain did not extend to the genital organs, and there was no desire to pass water, although the patient tells me that after one of these attacks the urine was a little bloody. (His urine at present throws down no blood or pus.) The above-mentioned attack lasted from four to five weeks. During these spells the pain was sometimes high up and sometimes low down. At times he vomited considerably. Though purgative medicines acted freely they did not relieve his pain.

He had a very typical attack last summer, the symp-

oms of which were accurately noted. There was at first a little looseness of the bowels. Then in the course of a day or two there was severe pain in the left iliac fossa, which increased in severity until the belly began to swell up, and obstinate constipation came on. His bowels seemed to be all in ridges, and the whole abdomen was intensely tender. On the sixth day of the attack he began to improve. There always remained a certain amount of soreness after the attack. He never had jaundice after any of these seizures. He has never been entirely well since the first attack.

I have been very much puzzled to account satisfactorily for all the symptoms presented. I could not, from certain signs, consider the case as one of abdominal colic, nor were the symptoms due to the passage of a biliary or renal calculus. The pain in these latter affections is never localized, as in this case. In renal calculus there is pain in the end of the penis and retraction of the testicles. Hepatic colic is always followed by the presence of bile in the urine and by clay-colored stools. The local tenderness, the persistence of the symptoms, and the disturbance of the bowels, all pointed, however, towards some inflammatory condition. I think that the only explanation of the case which can be given is that the attacks began with inflammation of the lining membrane of the bowels, which extended thence to the peritoneum, paralyzing the muscles of the intestines, and so causing costiveness. The belly was rendered tense, and vomiting persisted until the local peritonitis subsided. Local entero-peritonitis is the only name I can give to the attack. Such attacks are very common on the right side, and when occurring there go by the name of typhlitis or perityphlitis. This disease is followed by just the same symptoms. These attacks in the neighborhood of the sigmoid flexure are very rare. I cannot possibly explain their origin except as the result of continued exposure to cold and damp and vicissitudes of weather.

Upon making a careful examination I find a great deal of soreness, fulness, and resistance over the left iliac fossa. The right iliac fossa is entirely natural. The man has no difficulty in defecating at present, but the lumps are hard and about the size of a walnut. If the faeces are so large, there cannot certainly be any stricture of the bowel—the calibre of the gut is preserved. In a case of stricture the faecal mass is wire-drawn in its passage through the stricture.

I am going to pass in a rectal bougie to see that there is no obstruction. I want to impress upon you the fact that direct rectal examination is not resorted to nearly as often as it should be in these cases. Among the other conditions which call for direct examination are frequent stools with slime and pus or blood in them. I begin first by a digital examination, passing in my finger as far as possible. I find the lower bowel entirely empty, and exploration with my finger gives but little pain. There is a little thickening of its wall on the left side of the descending colon. There is also some thickening of the coats of the rectum.

I shall now pass in a bougie very carefully. There is evidently a great deal of thickening and muscular hypertrophy. Be very careful in such cases that you do not press too strongly against the sacrum or you may rupture the bowel. I cannot find any actual spot of obstruction. There is merely some extensive thickening, and nothing else.

After the patient has been taken back to the ward I will order him an injection by the "Simon gravity method." I will, in this way, determine by the amount



of water which the bowel holds whether there be any obstruction higher up in the intestine.

I can only attribute the periodicity of the attacks to the general character of the weather at the time of seizure.

The treatment must be by injections of astringent solutions and by counter-irritation to the left iliac fossa to promote absorption. I will put the patient upon a prolonged course of nitrate of silver and iodide of potassium. He must take small doses of the nitrate of silver daily until he has ingested thirty grains. Then leave off the silver and take the iodide of potassium for a certain time and then the silver again, and so on.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

SERVICE OF DR. J. W. S. GOULEY.

CYSTITIS ARISING FROM GONORRHOEA.

THE patient was a lad only seventeen years of age, who was suffering from a well-marked attack of acute gonorrhoeal cystitis. In consequence of the irritation to the bladder, he was obliged to pass his water every fifteen minutes.

Dr. Gouley regards this as a very troublesome affection, and one which is apt to last from three to six months. Some of the French surgeons, he said, were in the habit of treating it by injecting five or ten minims of a solution of nitrate of silver (thirty or forty grains to the ounce). from time to time, into the bladder; but personally he preferred the internal treatment by means of diluents and balsamics. In addition, he thought it was well to give belladonna, if the drug was well borne, and advised to commence with about a quarter of a grain three times a day. In some cases even smaller doses than that, he remarked, sent the pulse up to 120, and produced the most uncomfortable symptoms, while other patients could take from two to five grains a day with impunity. In some instances he was in the habit of combining the aqueous extract of opium with the belladonna (a grain of the one to a quarter of a grain of the other), and sometimes he found that rectal suppositories containing these ingredients acted very nicely.

#### ACUTE NON-SPECIFIC URETHRITIS.

The patient was an old man, who had formerly had gonorrhoea, but had not recently exposed himself to the risk of getting it again. Yet he had a copious purulent discharge from the urethra. It was probably due to the catheterism, which had been found necessary in order to accomplish the free dilatation of a stricture of long standing which he had, and Dr. Gouley stated that he had sometimes seen these urethral discharges in old men who had never had gonorrhoea at all, but were troubled with some chronic affection of the urethra or prostate. One gentleman that he knew, who had been obliged to catheterize himself for years, had a constant purulent discharge, almost the entire length of the urethra being the seat of undilatable stricture. In the present case he recommended rest and the administration of citrate of potassium (thirty grains three times a day).

#### RETENTION OF URINE FROM STRICTURE—ASPIRATION.

The next patient seen was one who had been brought

into the hospital the evening previous suffering from retention of urine.

The house-surgeon, after a number of attempts, having failed to catheterize him, had performed pneumatic aspiration.

The puncture was made just over the pubis, and twenty ounces of urine were thus withdrawn. Dr. Gouley said that sometimes he had performed aspiration in this manner for two or three days at a time, in order to give the urethra complete rest, and at the end of this period it was usually found that the condition of the existing stricture had markedly improved.

But, he then went on to say, it was only very rarely indeed that he had been obliged to resort to aspiration; because, even in the most difficult cases, he was almost uniformly successful in getting into the bladder by way of the urethra.

After ascertaining that the patient was thirty-three years old, that he had had gonorrhoea six or seven times, and that he had suffered from a stricture for fourteen or fifteen years, Dr. Gouley proceeded to make the attempt to catheterize him. It was found that the glans was markedly indurated, and that the meatus was small and situated very high up, so that it presented a good case for free division in a downward direction. When a small sound was passed as far as the point of stricture, it was ascertained that the urethra was unusually sensitive. The stricture was located about five and a half inches from the meatus, and as the penis was of a pretty large size, it was supposed to be somewhere in the anterior part of the bulb. The instrument employed was a No. 3 bougie, with the extremity bent in the manner advised by Benjamin Bell, and it was found that the stricture was a very narrow one. The next step was to pass a filamentous whalebone guide through the stricture into the bladder, and then inject the urethra full of oil. This procedure caused the patient great discomfort, and Dr. Gouley remarked that the air injected along with it gave him more pain than the oil did. The stricture seemed to be very much twisted, but without much difficulty he succeeded in passing a No. 6 metallic tunnelled sound along the guide into the bladder. Then, withdrawing that, he introduced a No. 7 in the same manner. To demonstrate that he had really succeeded in getting into the bladder at this point, he passed a catheter through the stricture, which was now sufficiently dilated for the purpose, and drew off a considerable quantity of urine. Dr. Gouley here remarked that if he had seen the patient the night before, he would not have found it necessary to employ the aspirator in order to empty the bladder. The great secret of his success in these cases he considered to be the injecting of the oil into the urethra before attempting to pass the catheter, and he felt quite sure that if he had not made use of this preliminary procedure here, he would have failed to catheterize the patient, as the house-surgeon had done, and in like manner would have been obliged to resort to aspiration.

While the catheter was being passed, Dr. Gouley had not disturbed the filamentous whalebone bougie previously introduced; and, still leaving it in position in the urethra, he now proceeded to pass in succession a No. 7, a No. 8, and a No. 9 untunnelled metallic sound. With the last instrument he withdrew the whalebone guide, the extremity of which still preserved the bend of Benjamin Bell, which had been given to it before its introduction. In order to have such a bend preserved permanently in the guide, Dr. Gouley is in the habit of resorting to a process of

"tempering." This consists of dipping the instrument first into a vessel containing melted lard (say, at a temperature of 200 degrees), and then into ice-water. He preferred to postpone any further division in this case until the meatus had been sufficiently enlarged by an incision (which he did not deem advisable to make on the present occasion), and remarked in leaving the patient that he did not think he would have to have his bladder aspirated again.

#### PERINEAL FISTULE SUCCESSFULLY TREATED BY FREE DILATATION OF AN EXISTING STRICTURE.

Dr. Gouley stated in connection with this case, that if he had not succeeded in curing it by the above method, he would have resorted to the plan recently adopted and practised with very satisfactory results by some of the French surgeons. This consists simply of keeping up firm pressure with the finger, placed either in the rectum or at the point of the internal orifice of the fistula, every time that the patient urinates, in order that all the urine may pass through the urethra, and none be allowed to escape into the fistulous tract. In this manner the latter is given an opportunity of healing up by granulation, without having the process interfered with by the passage of urine over its surface.

#### UNUSUAL INDURATION OF THE URETHRA.

This patient was a very old man, who had a stricture of moderate tightness in the bulbous portion. The noteworthy point about the case, however, was that the urethra was exceedingly dense for about an inch and a half of its course, commencing at the meatus.

On account of the feebleness and great age of the patient, Dr. Gouley was entirely unwilling to venture to do any cutting, and he was therefore obliged to content himself with attempting such gradual dilatation as was possible. On trying to introduce a No. 9 sound into the bladder, however, he found that it was so tightly grasped near the meatus that he could not even get the point of the instrument through the deep-seated stricture without resorting to such force as he considered unjustifiable under the circumstances. In such cases, he said, the attempt to persist with a large sound very frequently results in making a false passage. Consequently, on the principle that "half a loaf is better than none," he was quite willing to remain satisfied with passing a No. 7 or 8 bougie.

#### AMPUTATION OF THE PENIS FOR EPITHELIOMA.

In this case, which had been operated on two weeks before, there had not been a single bad symptom since the amputation had been made. In performing it, Dr. Gouley had expected to have made a lambdoidal incision in the perineum, but he found that he could get along very well with a single straight cut. The patient now passed his water freely through the urethra, the edges of whose orifice were continually becoming more and more inverted, so that, as was remarked, the man had quite a respectable little *vulva*. One-third of the sinus of the bulb had been included in the part amputated. On examining the condition of the parts to-day, Dr. Gouley found that there was a considerable redundancy of scrotal tissue, and snipped this off with the scissors, in order that an appearance of greater neatness might be presented when the case was completed.

#### A WELL-DILATED STRICTURE—UNNECESSARY DIVISION OF THE MEATUS.

In this case Dr. Gouley passed a very large sound (a No. 18), with the greatest ease, and in doing so he

called attention to the condition of the meatus, which he considered had been unjustifiably mutilated, and, to use his own words, was now gaping like a woman's vagina. He thought it really too bad that an individual should have to go about with his urethra in this condition, and yet he knew at least twenty men in this city who had been put in this unfortunate predicament. One positive evil, besides the deformity that resulted from this terrific slashing of the meatus, was the very marked induration of the urethra which always resulted from it.

#### ACUTE PROSTATITIS—THE PROPER METHOD OF INCISING THE MEATUS.

This patient, who had an abscess of the prostate, was doing well, and Dr. Gouley showed that he could pass a No. 18 with the same ease as in the last case, "notwithstanding the fact that his urethra had not been split almost to the base of the glans, and hypospadias caused in consequence." Yet a moderate incision in the meatus had been made, and with the most happy results. The orifice, although quite as much enlarged as there was any necessity for its being, was entirely normal in every respect, and it was observed that after the instrument was withdrawn it contracted as naturally as though it had never been cut at all.

## Progress of Medical Science.

DISCHARGE OF THIRTEEN LICHES OF THE SMALL INTESTINE PER ANUM, WITH RECOVERY.—Dr. Powers, of Michigan, reports the following interesting facts which occurred in a patient under his care. A boy of fourteen was taken suddenly with severe pain in his bowels, and soon after commenced to vomit, and had thin and dark evacuations of blood. When seen on the third day he had high fever, tympanites, and other symptoms of peritonitis. He was then put upon opiates, acornite, and light mercurial alteratives, while hot fomentations were applied to the abdomen. The bad symptoms had so far abated at the end of forty-eight hours that a movement of the bowels was attempted. A full dose of castor-oil, with fifteen drops of turpentine, was administered. The symptoms immediately became severe; there was vomiting of stercoraceous matter, and discharge of a dark and bloody character from the rectum. Deeming that the case was one of intestinal obstruction, a more strictly opiate treatment was adopted, while at the same time a large warm-water enema was given every six or eight hours. Under this treatment he again became comfortable, and on the morning of the eleventh day had, for the first time during his sickness, a free rectal evacuation "of the consistency of batter." On the morning of the thirteenth day there came away with "a free natural movement, some thirteen inches of the small intestine and the portion of the mesentery involved with it." At the date of the communication, four weeks later, he had nearly recovered his health.—*Mich. Med. News*, June 10, 1878.

LIGATION OF THE EXTERNAL ILIAC.—Prof. Toland, of California, has operated in all nine times, with seven successes. The last case was for aneurism of the left external iliac, and exemplifies his method of treatment. The patient was a German, forty years of age. The tumor extended from Poupart's ligament, upward in the course of the vessel, one-third of the distance to the umbilicus, and was about the size of



the closed hand. The operation consisted in making the semilunar incision through the skin with the concavity inwards, and then in cutting through the abdominal muscles and transversalis fascia, so as to correspond to the first incision. Separating the peritoneum from the artery was found to be difficult, and led to an unavoidable rupture of the membrane. The vessels were then tied with a strong silk ligature, about two-thirds of an inch below the bifurcation of the common iliac. The wound was closed by silver sutures, leaving room at the lowest part for the ends of the ligature and for drainage. Adhesive plaster supported the stitches, and simple water dressing was applied. On the day after the operation peritonitis set in. On the tenth, the unfavorable symptoms had disappeared under opium. When the ligature came away on the thirtieth, the discharge was slight. For the six days following there was an escape of clotted blood, followed by profuse suppuration. This event was attributed to the rupture of the sac and its contained coagula. The subsequent progress of the case was favorable. Prof. Toland does not isolate the vessel from its sheath, and thus avoids denuding any part of the arterial tunic, which is thus never deprived of its nutritive supply through the vasa vasorum of the sheath. Of the two fatal cases, one died from gangrene of the leg, and the other from repeated hemorrhages, in "small vessels that were ruptured in detaching a strongly adherent and thickened peritoneum from the iliac fossa."—*Western Lancet*, June, 1878.

**THE PRIORITY OF PARENCHYMATOUS OR INTERSTITIAL NEPHRITIS AND THE ORIGIN OF CASTS.**—Dr. Aufrecht, of Magdeburg, has been making (*Centralblatt f. d. Med. Wiss.*, May 11, 1878) experiments upon rabbits with the view of determining some of the obscurer points in the pathology of renal disease. He has tied the left ureter in a number of instances, and has come to the conclusion that at first a purely parenchymatous change is produced, followed in a few days by interstitial deposit. Examining the kidney microscopically on the third day, he found most beautiful casts in the convoluted tubes, while the epithelial lining them was granular and filled with oil drops. In cases where the ureter had been tied six, twelve, or twenty-three days, the interstitial tissue was thickened by numerous cellular bodies, the epithelium was less granular, and there was no trace of any casts. He also observed that the casts were not always continuous, and occasionally were separated by fine lines. In two instances he states that he saw bright spherical bodies pushing out from the epithelial cells. These drops, he thinks, unite and form casts. As opposed to the view that the casts are derived from the fibrine of the blood, is the statement that on the third day after ligature of the ureter there is no change to be seen in the interstitial tissue or blood-vessels. Besides, the lateral pressure from the retained urine which the dilated ureter and pelvis of the kidney produce makes it improbable that any fluid can escape from the blood. Thirdly, when interstitial change has occurred, casts are no longer seen. These interesting experiments deserve repeating.

**THE VALUE OF ELECTROLYSIS IN THE TREATMENT OF OVARIAN TUMORS.**—Dr. Mundé, of this city, in an elaborate paper on this subject, which gives a more or less perfect record of fifty-one cases of ovarian tumor, many of which have never been published, comes to the following conclusions: In nineteen, or 37.25 per cent., no benefit was derived from the electrolytic treatment, not counting four cases in which the improvement was not permanent; in thirteen, or 25.49 per

cent., decidedly injurious effects were directly produced by the electrolysis, in consequence of which nine of these, or 17.64 per cent. of the whole fifty-one, died. Ten, or 19.62, received no permanent benefit. Of the nine fatal cases, four, or nearly one-half, occurred in multilocular tumors, while of the ten cases reported as cured, in which the nature of the case is given, five were unilocular growths, and five polycysts. About fifty-five per cent. of these recorded cases have been cured, and the possibility of a cure by such means is therefore established.

The question whether monocysts or polycysts are more amenable to treatment is as yet undecided, though it would seem that the tumors most likely to be benefited by electrolysis are small monocysts and polycysts with thin walls and fluid contents, and absence of large, solid masses. Notwithstanding these cures, the percentage of successes compare unfavorably with those of ovariectomy (55 per cent. as against 70 to 80 per cent.); while the deaths from electrolysis (17.6 per cent.) nearly equal those of ovariectomy in later years (20 to 30 per cent.), and far exceed those in Spencer Wells's last series of fifty-five cases (5 or 9 per cent.).—*Reprint from Gynecological Trans.*, vol. ii.

**THE INVERSE TYPE OF TEMPERATURE AS A SYMPTOM OF MILIARY TUBERCULOSIS.**—It is stated (*Il Morgagni*) that the rise of the temperature in the morning and the fall in the evening are indications of miliary tuberculosis, either of the acute variety or as secondary to cheesy pneumonia. Of seventy-one patients who died of phthisis under Prof. Brunnich, this type of temperature was noted in sixty-three per cent. In patients with cheesy pneumonia without miliary tuberculosis it occurred in twenty-five per cent., while in cheesy pneumonia with miliary tubercles the proportion was eighty-five per cent. The greater the difference between the morning and evening temperatures, the more rapid the advance of the malady.—*La France Médicale*, May 8, 1878.

**ON SUDDEN DEATH AFTER SEVERE BURNS.**—Prof. Ponfick, of Göttingen, carried out recently a series of experiments on dogs, with a view to discover the cause of the sudden death which sometimes occurs after an extensive burn. Whenever the burn was of a severe character, he invariably found a marked alteration in the blood of the animal a few minutes afterwards; it consisted in a destruction of the red corpuscles, which were broken up by a process of crumbling or dissolution into an immense number of small colored particles. These fragments disappeared after several hours, the length of time they persisted varying according to their original number. Before disappearing, however, they excited grave disturbances in different organs of the body, and especially in the kidneys, through which a large portion of the hemoglobin, that which was now circulating to a certain extent free in the blood, was excreted. In all severe cases at least, a violent inflammation of the parenchyma of these organs was excited, which was manifested by the appearance of peculiar, colored casts in the urine, by extensive obstruction of the urinary tubes, by fatty degeneration of the epithelium, etc. A portion of the fragments, on the other hand, remained in the body; they disappeared in the pulp of the spleen and in the medulla of the bones, where they were taken up by the contractile cells, in the substance of which they probably underwent a gradual destruction. This absorption into the substance of the spleen is evidenced to the naked eye by a striking increase in the size of the organ, as well as by its increased redness and succulence on section.

Prof. Ponfick believes that, at all events, a certain number of the acutely fatal cases, as well as a portion of the severe symptoms in the cases that terminate in recovery, must be ascribed to a sudden and extensive destruction of the red corpuscles. He does not venture any opinion with regard to the influence of the rapid suppression of the urinary excretion on the course of the case. In view of the destruction of the red corpuscles, he suggests the employment of transfusion in cases of severe and extensive burns with urgent symptoms.—*Berliner klin. Wochenschrift*, 1877, No. 46.

ON THE NECESSITY OF CAUTION IN THE USE OF CHLOROFORM DURING LABOR.—Dr. Lusk, of New York, in a recent paper submitted the following propositions:

I. Deep anesthesia, carried to the point of complete abolition of consciousness, in some cases weakens uterine action, and sometimes suspends it altogether.

II. Chloroform, even when given in the usual obstetrical fashion, namely, in small doses during the pains only, and after the commencement of the second stage, may, in exceptional cases, so far weaken uterine action as to create the necessity for resorting to ergot or forceps.

III. Patients in labor do not enjoy any absolute immunity from the pernicious effects of chloroform.

IV. Chloroform should not be given in the third stage of labor. The relative safety of chloroform in parturition ceases with the birth of the child.

V. The more remote influence of large doses of chloroform during labor upon the puerperal state, is a subject that calls for further investigation and inquiry.

Dr. L. says that with these five propositions he is prepared to close his indictment against chloroform in midwifery: It is, he says, not a formidable one, and need not deter from its cautious employment. But the sense of possible danger which governed its use in the hands of those to whom we owe its introduction into practice, has been replaced by an overweening confidence.

PROGRESSIVE MUSCULAR ATROPHY DUE TO GOUT.

—M. Potain reports a case of progressive muscular atrophy, the origin of which he traces to the influence of gout, from which the patient was suffering. The muscles affected were those of the arms and face; the biceps had almost completely disappeared. There was a marked feebleness of hands and arms, and absence of expression in the face due to the atrophy of the muscles in these regions. The character of the affection left no doubt as to its diagnosis, but its etiology was a point of more difficult decision. The causes to which are generally ascribed this affection were absent in this case, and M. Potain seeks in the gouty habit an explanation of this otherwise singular disease. Could not, he asks, the gouty changes so often found in the other organs, be also produced in the cord, and thus give rise to the muscular atrophy? Graves reports two cases in which affections of the cord occurred during the course of gout, but the contents of the spinal canal have not been examined with sufficient care in cases of this disease to give any statistical value to the records.—*Gazette des Hôpitaux*, April 25, 1878.

EFFECT OF THE INTRA-VEINUS INJECTION OF UREA IN PRODUCING CONVULSIONS.—A paper on this subject by MM Feltz et Ritter, was presented to the *Académie des Sciences* by M. Bouillaud, in which the following conclusions were reached:—Pure, artificial, or natural urea injected into the venous system, even in very large doses, never gives rise to convulsive symptoms; it is very rapidly eliminated by the secretions. There are in normal blood no ferments which

convert urea into ammoniacal salts; the rapidity of elimination cannot be considered as a cause of this non-conversion, for, by suppression of the renal secretion, the elimination of urea can be retarded without hastening the appearance of eclampsia. The urea, which, in large doses, excites convulsions, is rendered impure by the admixture of some of the salts of ammonia, the presence of which can be easily demonstrated by Nessler's test. M. Jolyet related to the *Société de Biologie* some experiments which he had made upon this subject, and which gave him negative results. Into the circulation of a dog, from which the kidneys had been removed, he injected ten grammes of artificial urea, and neither on the day of the operation nor on the following day were any convulsive symptoms observed. This experiment was repeated with similar results, although fifteen grammes of urea instead of ten grammes were used; this in a dog weighing six kilogrammes.—(*Gazette Médicale de Paris*, April 20 and 27.) Dr. Paul Cuffer has also made this an object of investigation, and has given his results in his thesis. His experiments consisted in the injection of urea, carbonate of ammonia, and creatine. The injection of urea, although in very large quantities, did not affect the functions of the animal experimented upon, nor did it alter in any respect the blood. On the contrary, after the injection of carbonate of ammonia, the capacity of the blood for the absorption of oxygen was lessened almost one-half; moreover, it was found by enumeration that in each cubic millimetre of blood there was a diminution of nearly one million globules. The action of creatine is similar to, but more energetic than that of carbonate of ammonia; both give a diminution in the number of blood-globules. In Bright's disease, the conversion of a portion of the retained urea into carbonate of ammonia (which differs from urea in the elimination of one equivalent of water) is easy; there is also a certain quantity of creatine retained in the circulation. These two poisonous substances are capable of producing the changes of the blood which are observed in Bright's disease; the globules are diminished in number, and those that remain are altered in constitution; they become very resistant, are not altered in shape by reagents, and are, so to say, paralyzed; their power of absorbing oxygen is greatly diminished. This alteration of the blood combined with the spasm of the vessels, pointed out by M. Potain, gives rise to the dyspnoea observed in this disease.—*La France Médicale*, May 11, 1878.

COLLODION AS A PREVENTIVE OF SEA-SICKNESS.—

Dr. Laederich claims that collodion has remarkable power as a preventive of sea-sickness. It should be employed as follows: Before embarking, the voyager should apply successively three layers of ricinated collodion to the epigastrium, overstepping slightly the anatomical limits of that region. The layer should extend below to a line immediately above the umbilicus, laterally to a line about two inches outside of the nipples, and above to some inches above the border of the ribs. When the voyage is expected to last more than a few days, a small quantity of the collodion should be taken along to repair the cracks in the plastering. Dr. Laederich is unable to say from experience whether or not the collodion possesses curative as well as preventive powers. He believes it does, however, because he has employed it successfully as an anti-emetic in the painful vomiting of peritonitis. Applied to the epigastrium as above, it always diminished and often arrested the vomiting.—*L'Année Médicale*, June.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## HOMŒOPATHY AND EXCLUSIVENESS.

THE Medical Society of the County of New York at its last meeting had a question brought before it by the Comitia Minora (Executive Committee) which involves many important considerations. It appears that one of the members of the Society had requested the Comitia to inform him officially whether the recent action of the Homœopathic Society of the State of New York released its members from the ban of exclusiveness as regards consultations which has heretofore been placed upon them by the profession. It will be remembered that this action of the Homœopathic Society was reported in our columns some months ago.

The Code of Ethics of the American Medical Association upon this point reads as follows:

"But no one can be considered a regular practitioner or a fit associate in consultation whose practice is based on an exclusive dogma to the rejection of the accumulated experience of the profession and the aids actually furnished by anatomy, physiology, and organic chemistry."

The exclusive dogma referred to at the time when this code was formulated was probably that of Homœopathy, viz., that all diseases should be treated in accordance with the proposition *similia similibus curantur*.

It has long been notorious that many professed homœopaths have not as a fact treated their patients exclusively in the manner indicated. For years many of them have selected their remedies upon allopathic and antipathic as well as upon homœopathic indications. In view of the fact that at all their colleges, anatomy, physiology, chemistry and the other fundamental branches of a medical education are taught, it would be absurd to say that they do not avail themselves of the aids furnished by these branches of science. It is indeed quite recently that they have made a public declaration bearing upon these facts.

Under the circumstances then, the Comitia have been asked to state their opinion as to whether the so-called liberal homœopaths are really exclusive practitioners under the code. The reply was as follows:

"That strict adherence to the proposition, '*Similia Similibus Curantur*,' in the selection of medicines and the rejection of '*the aids furnished by anatomy, physiology, pathology and organic chemistry*,' constitutes exclusiveness.

"Those who do not reject the aids referred to, and who do not prescribe homœopathically when better ways are known to them, are not exclusives. The only exclusives in this country known to the Comitia Minora are a minority of the Homœopathic Medical Society of the county, and the members of the Eclectic Medical Society, the constitution of whose State organization excludes the employment of 'antimonials, mercurials, and venesection.'"

The adoption of this portion of the Comitia's report, when brought before the Society, gave rise to considerable discussion, and was finally rejected by a vote of 32 to 20, a goodly number of members present not voting.

There is very little doubt on the one hand that the report of the Comitia was technically correct, and on the other hand that there was a great deal of opposition to consulting with professed homœopaths on any terms. It was this latter feeling which undoubtedly influenced the vote. Under these circumstances, as in many others, societies frequently decide points at issue from prejudice rather than reason.

A careful examination of this question leads us to the belief that the Comitia could not have met it in any other manner than they did, and that the action reveals the fact that the Code is defective in so much as it does not at present cover what the majority of this Society believe to be the requirements of this case. If it is the desire of the Society, or of the regular profession to exclude from professional fellowship all those who are connected with homœopathic organizations, or who practise homœopathy, then it will be obviously necessary to enact a suitable by-law or procure a necessary amendment to the Code.

The importance of a strict interpretation of the facts would be readily perceived were such a case of alleged violation of the Code brought to trial. The laws which govern the profession of the State of New York confer upon the County Societies certain powers and privileges, among others that of adopting any by-laws they choose, so long as they are not contrary to the statutes.

The Medical Society of the State of New York has adopted a Code of Ethics as a portion of their by-laws, and there is little doubt if a member of their Society were convicted of a breach of the Code for consulting with a liberal Homœopath, that any and every court in the State would reverse the decision of the Society on the grounds of illegality, and thus place the charter of the Society in jeopardy. The

reason for this statement is obvious enough when we consider that no member of a Society can be convicted of an offence that is not provided for by its by-laws; and as there is no provision against consultations with Homœopaths as such, but simply against them as exclusives, when their exclusiveness is dropped that portion of the Code necessarily becomes null and void. If it is desired to exclude them in consequence of their belief in the ability of prescribing in accordance with the law of similars, it will be necessary, as before stated, to provide for them by new enactments.

#### MEDICAL EDUCATION IN FRANCE.

THE letter from Dr. Cruse in another column presents some very significant facts connected with medical education and medical preferment in France, which every medical man in this country may contemplate with profit. We know that the story is an old one, but the earnestness and forcibleness with which it is retold gives it a new interest. The subject cannot be presented too often to the rising generation of medical men, and the reforms which its candid discussion invites, cannot be too vigorously advocated. Dr. Cruse very pertinently remarks that as we cannot all expect to be professors in colleges, and thus directly benefit by the steady overcrowding of the profession, the rising generation of medical men must look around them for some protection against future ruin. And it is just such matter-of-fact appeals as he makes that draw serious attention to the monstrous evils connected with our system of medical education, and that may in time create a reaction which may place professional competition upon its proper level. Every right-minded medical man is in favor of rewarding merit. Every conscientious student is willing to have the tests of fitness applied to every professional position, to give credit to every one who fairly wins his spurs, and to honor every ambitious endeavor to gain eminence by faithful work. To men of this way of thinking the admirable system of preferment for place as it exists in France, commends itself as the beau idéal of fair play, and rules out of the question the possibility of self-constituted professorships, and hospital appointments secured by mere wire-pulling or by political influence.

CONVULSIONS IN A CHILD DUE TO THE PRESENCE OF A HAIR IN THE ALIMENTARY CANAL.—A child under one year of age, suffered for several weeks from convulsions, which varied in severity and were frequently repeated. It appeared to be healthy in all other respects. All the usual methods of treatment were employed without success. At last the mother noticed the end of a hair lodged between the two incisors of the child, and, on drawing on it, removed a hair nearly a yard in length, which had hung down into the throat of the little patient. After the removal of this foreign body, the convulsions ceased as if by enchantment.

## Reviews and Notices of Books.

THE SOURCE OF MUSCULAR POWER. By AUSTIN FLINT, JR., M.D., Prof. of Physiology and Physiological Anatomy, Bellevue Hospital Med. College, N. Y. D. Appleton & Co., 1878. 12mo, pp. 103.

THE problem selected by Dr. Flint for solution is whether the food is concerned *directly*, by its transformation in the production of muscular power, or, does the muscular effort involve changes in the muscular substance itself, this substance being destroyed as muscular tissue, discharged from the body in the form of excrementitious matter, and the waste repaired by food. In other words, is the human body a mere mechanical machine, dependent for its energy solely on the food, which it utilizes as fuel, or, are there other subtle and powerful influences at work which produce the muscular power?

At first sight this question appears simple and to admit of a ready solution, but the investigation soon develops difficulties, which increase as the study proceeds. The theories of Lavoisier and his followers have greatly advanced our knowledge of the respiratory processes, and the more modern researches of Bernard and Brown-Séquard with regard to the influences of the nervous system upon calorification, local variations in animal temperature, &c., showing that the production of animal heat is one of the phenomena incident to the general process of nutrition, and that it is not due simply to oxidation of hydro-carbons. We know oxygen is consumed, carbonic acid produced, and heat generated in the bodies of animals; but we by no means understand all of the intermediate processes between the appropriation of oxygen by the tissues and the production of carbonic acid. We cannot raise the temperature of animals above the normal standard by increasing the supply of the hydrocarbons in the food, nor can we arrest the production of heat by depriving animals of the so-called calorific principles.

Again, no one can say why the growth of muscle and the development of muscular power is restricted within certain limits, no matter how much food may be taken and digested; neither can a reason be given why a man should gradually become on an average 5 feet 8 inches in height, and weigh 140 pounds, and then maintain that standard throughout his adult life. And lastly, why, after exhausting one set of muscles, he is still capable of severe work with another.

We mention these facts to show that the question at issue is quite intricate, and may surprise many by the varied nature of the detailed inquiry which must be undertaken before we can hope to arrive at a thorough knowledge of the subject. As is well known, Dr. Flint has taken advantage of opportunities to study many of these points upon Weston, and through the assistance of the latter was enabled to make experiments upon the living organisms under specially favorable physiological conditions. The results obtained have been carefully studied and compared with those of Pavy taken under similar circumstances, and finally Dr. Flint has presented the conclusions deduced from the facts thus carefully gathered.

It is not our intention to give a synopsis of Dr. Flint's interesting book, but rather to indicate its scope and aim, especially as its one hundred pages can be studied in a very short time.

In conclusion, we will briefly state that Pavy's view



are not accepted by Dr. Flint, who attributes the direct source of muscular power to the muscular system itself; and further, that the muscular power immediately involves the destruction of a certain amount of muscular substance, of which the nitrogen excreted is a measure. Dr. Flint also considers nitrogenized food *indirectly* as a source of power, as by its assimilation by the muscular tissue—it repairs the waste and develops the capacity for work; but food is not directly converted into force in the living body, nor is it a source of muscular power, except that it maintains the muscular system in a proper condition for work. Such are the conclusions of Dr. Flint, and for the data upon which he has founded them we must refer our readers to the work itself.

CYCLOPEDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. VON ZIEMSEN. Vol. XVI. DISEASES OF THE LOCOMOTIVE APPARATUS, and GENERAL ANOMALIES OF NUTRITION. By Prof. H. Senator, Prof. E. Seitz, Prof. H. Immermann, and Dr. Birch-Hirschfeld. Translated by E. Buchanan Baxter, M.D., London; John Todhunter, M.D., Dublin; Godfrey Aigner, M.D., and Frank P. Foster, M.D., of New York; and Henry P. Bowditch, M.D., of Boston. Albert H. Buck, M.D., New York, Editor of American Edition. New York: Wm. Wood & Co., 1877.

THE first 228 pages of the volume now before us are from the pen of Prof. H. Senator, of Berlin, and embrace all that the volume contains on Diseases of the Locomotive Apparatus, including Rheumatism in all its different forms, Gout, Arthritis Deformans, Rickets, and Malacosteon. Prof. Senator is a comparatively young man, and quite a young clinician. Probably, therefore, his contributions on these subjects should be dealt with leniently. They not only contain nothing new, and tell the old things in a very dry, uninteresting manner, but, what is absolutely unpardonable, they are not up to the times. We expect better things of a clinical professor in Berlin than not even to mention salicylic acid or salicin in the treatment of rheumatism! This deficiency, it is true, is made good by a Translator's note on these remedies at page 1039; but no allusion to this note is made in the article on rheumatism nor in the index, and the reader who is looking up rheumatism is left to stumble on to the note at some future time when he happens to be studying Diabetes. We are told in this note that Prof. Senator wrote his paper on rheumatism before these remedies came into use, and that "the pressure of other business having prevented him from contributing the needful supplement on this important subject," etc., etc. All of which is a very lame apology for work half done.

Fortunately this Cyclopædia has been remarkably free from this kind of contributors. The best men in Germany have given it their best thought and labor, else it could never have made for itself the place it has on both sides of the Atlantic.

Sundwiched in between Diseases of the Locomotive Apparatus and Disorders of Nutrition are twenty pages, by Prof. Seitz, of Giessen, on "Slight Disorders caused by Catching Cold." The prospective appearance of this article has repeatedly been referred to by other writers in the Cyclopædia, and the reader has been led to expect that when this article appeared he should at last have something scientific and authoritative on the *rationale* of "taking cold." In this he will be disappointed, for while Prof. Seitz furnishes a very readable little paper, it contains nothing new nor profound, and neither helps us in prophylaxis nor treatment.

The "General Disorders of Nutrition" are ably in-

troduced by Prof. Immermann, of Basle. He explains and defends the classification which admits of such a division as this. While endorsing "the humoralistic views which have once more—and rightly—invasion of our pathology," he still thinks it "very likely that the constitutional character of many diseases is determined by an abnormal change of the tissue elements; that there exist general disorders of nutrition whose primary seat is not in the blood, but in all, or, at any rate, in a great part of the remaining tissues." The danger, at the present age, of concentrating our attention on the accurate examination of single parts, and failing to note the constitutional tendencies as a whole, is noticed, and the author insists "that the treatment of intercurrent disease in a constitutionally affected subject must be so narrowed or extended as to fit it to the abnormal course of the vital processes, if we would reckon on a favorable issue."

The first one of the disorders taken up is "Anæmia, or Poorness of Blood," which is treated of at considerable length and in a most admirable manner. The etiology and pathology of this condition are ably discussed; while under the head of treatment the author lays down rules for the dietetic and other management of different varieties of *dyspepsia*, which are more practical and valuable than those of most writers who profess to be handling dyspepsia. We cannot too highly commend this entire section to the attention of American physicians. If there is one thing which we need to know, and which, as a rule, we don't know, it is what dietary to recommend to different kinds of dyspepsias.

While highly prizing iron in many cases, Prof. Immermann depreciates its indiscriminate use in anæmia. Whereas simple atonic dyspepsia may be relieved and cured, together with the anæmia, by the use of iron, "the different varieties of true dyspepsia which so often stand in a causal relationship to the anæmia, are usually made worse by ferruginous tonics." He considers that iron compounds are, upon the whole, contraindicated by fever. Also that "iron is contraindicated when hemorrhage is either imminent or actually going on."

The value of cod-liver oil for its conservative influence in anæmic marasmus is duly appreciated, and its superiority to other fatty substances is explained on the ground of the admixture of biliary constituents which it contains. At the same time, Prof. Immermann tells us that Trommer's Malt Extract has for the past few years "almost entirely taken the place of cod-liver oil in the treatment of phthisis and other wasting diseases, at the Basle Hospital." The value of gelatine as an auxiliary article of diet is also vindicated.

A separate and quite lengthy chapter is devoted to the subject of *Chlorosis*, the line of demarcation between this and anæmia being clearly drawn. Like its predecessor, this chapter is thorough and interesting, and will convey to most readers much new and valuable information on the subjects discussed. In closing his remarks on the pathogeny of chlorosis, the author says: "Without, therefore, committing myself to a belief that all cases of chlorosis may be traced to one and the same origin, and fully admitting that the disease may often be a temporary consequence of a temporary disturbance of hæmatopoiesis, I nevertheless hold with Virchow that a majority of the severer forms of chlorosis, especially those showing an obstinate disposition to recur, are ultimately due to a predisposition, either inborn or acquired at a very early stage of development, and are therefore incapable of being radically cured."

After a brief chapter on "Progressive Pernicious Anæmia," Prof. Immermann devotes 120 pages to the subject of *Corpulence*, and here again does himself credit by the thoroughness and the practical character of his work. Want of space alone forbids a more detailed notice of the many good points made concerning the origin and treatment of obesity. One alone we may not omit, viz., that there is such a thing as an anæmic corpulence, which contraindicates the usual restrictions of diet, and imperatively demands iron in its treatment.

*Scrofulosis and Affections of the Lymphatic Glands in General* are discussed by Dr. Birch-Hirschfeld, of Dresden. He begins with a very concise statement of the different views held with regard to the mutual relations of scrofulosis and tuberculosis, and the theories concerning the essential character of tubercle. The following is his definition of scrofulosis: "We may designate scrofulosis as a constitutional anomaly which shows itself by changes partly of an inflammatory, partly of a hyperplastic nature, excited in the tissues by a comparatively slight noxious influence—changes which are endowed with insufficient recuperative power, and are therefore prone to lapse into retrogressive metamorphosis, and, following thereupon, into local tuberculosis."

The question of the danger of conveying scrofulosis by vaccination, like many other questions with regard to scrofula, is left without a positive answer, though the author evidently leans to the negative. Nothing new appears under the head of treatment. The author is disposed to expect but little from the recently vaunted excision of scrofulous glands. Dr. Birch-Hirschfeld's article is thorough and valuable throughout.

The remaining portions of the volume are occupied by Prof. Senator in treating of *Diabetes Mellitus and Insipidus*. He divides diabetes mellitus into a diabetes proceeding primarily from the nervous system (neurogenic) and a diabetes proceeding primarily from the intestinal canal or the liver (gastro-enterogenic and hepatogenic).

It is evident that in the question of diabetes Prof. Senator has found one that interested him, to which he has given his best labor, and which he therefore handles in a manner that is both interesting and profitable to the reader.

**CONGENITAL OCCLUSION AND DILATATION OF LYMPH-CHANNELS.** By SAMUEL C. BUSEY, M.D., Professor of the Theory and Practice of Medicine, Medical Department of the University of Georgetown. New York: William Wood & Co. 1878. Pp. 167.

THERE is a class of congenital deformities occasionally coming under the notice of physicians which have their expression in a peculiar hypertrophy of the skin and subcutaneous tissue, some of which have been classed under the head of congenital elephantiasis. The author of the volume under review has collected from the various foreign and domestic journals, eighty-six cases, and mentions two occurring in his own practice. All these cases are reported in detail, and make up the greater portion of the book. He states in his preface, "that the volume is, for the most part, a republication of a serial contribution to the *American Journal of Obstetrics*, and is the result of an effort, on the part of the writer, to study and analyze the complex phenomena exhibited in this class of cases," which he considers due to congenital occlusion and dilatation of the lymph-channels. The result of this occlusion and dilatation seems to express itself in two ways: I. As an hypertrophy of the integuments, some-

times involving the bone, as the tibia; accompanied, in many cases, by the formation of cysts or caverns in the hypertrophied tissue, containing a serous, milky fluid, which, in one case the author has demonstrated, communicated with the lymph-channels of the part; or there may be a simple oozing of a serous fluid from the enlarged limb. II. In the occurrence of lymph varices in various portions of the body, but most commonly met with about the genitals, or in the upper part of the thigh, from which there is a constant or occasional discharge of a serous or milky fluid.

The hypertrophied parts are firmer than normal, not cedematous, rather inelastic, and not pitting on pressure.

He again divides these congenital hypertrophies into two groups; in the first the affected parts grow in proportion with the rest of the body; in the second the "giant formation" is in excess of the development of the rest of the body. Cases belonging to both of these divisions are given in the cases collected.

The hypertrophy may not only be confined to the circumference of a limb, but may affect its length, and again this elongation may be due to an increase in the length of the bone, or to the formation of cushions of fat. Bone thickening is most frequently found in connection with connective-tissue hyperplasia.

No constant modification of the arterial system was found. Occasionally it was normal, but usually the vessels were very much atrophied, sometimes absent, but never enlarged. In a few cases there was an increase in the muscular power of the hypertrophied limb.

In regard to the etiology and pathology of these affections, it is involved in great obscurity. "To attribute them to congenital defect of formation is simply the expression of a fact without offering a satisfactory explanation." . . . Very many of these cases find their cause in nutritive disturbances, and changes taking place in intra-uterine life, and chief among these is inflammation. The influence of race and condition is marked; most of the cases have been reported by German authorities, and occurred among hospital and dispensary patients. . . . The conclusion is inevitable, that blood impoverishment, a meagre diet, and bad hygiene are, at least, exciting agencies."

In regard to treatment, the cases divide themselves into curable and incurable. To the latter class belong those cases where the anatomical lesion is so located as to render positive diagnosis impossible, or where the congenital defect is so situated, or is of such a character as to forbid interference.

In regard, then, to the first class, the treatment divides itself into local and constitutional; the latter relates to the exhibition of such medicines as will combat the anæmia arising from the loss of lymph, and to prevent the manifest tendency to tubercular affections. Local treatment consists in compression, puncture, free incisions, cauterization, and extirpation.

It is impossible, in a review of this kind, to do more than draw attention to this very interesting class of deformities, and to advise those wishing to inform themselves on the subject to consult the book itself, as it will abundantly repay a careful perusal. It is illustrated with fifty six plates.

**TWO CASES OF RETROFLEXION IN NEW-BORN CHILDREN.**—These cases are reported by Dr. Carl Ruge. In both of them the point of flexion was at the orificium internum, and both presented a thickening of the posterior wall of the uterus.—*Deutsche Med. Wochen.*, No. 24.



## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE. OBSTETRIC SECTION.

*Stated Meeting, May 20, 1878.*

DR. SALVATORE CARO, CHAIRMAN.

#### THE TREATMENT OF PUERPERAL CONVULSIONS OCCURRING AFTER LABOR.

Dr. S. T. HUBBARD opened the discussion upon the above subject by relating the history of a case as follows: He was called to visit Mrs. E. on the 16th of March, 1878. She was thirty-six years of age, pregnant with her first child, and within three weeks of her expected confinement. She was delicate in appearance, yet apparently in good health. She complained of headache, had flushed countenance, imperfect vision, and constipated bowels. A brisk cathartic was ordered. The urine was examined on the following morning, and found to contain about fifty per cent. of albumen, with some granular casts. After free opening of the bowels, infusion of digitalis was given in drachm doses, three times a day; also three drachms of bitartrate of potassa dissolved in water were ordered to be taken in the course of twenty-four hours. Under that treatment the quantity of urine increased to the normal. There was no puffiness of the face or oedema of the feet. At the end of one week the quantity of albumen had decreased from fifty to ten per cent. The bowels were kept free by the use of bitartrate of potassa. The headache and the imperfect vision, however, were more or less persistent. On the first of April the doctor ordered grs. vi. of calomel, with grs. x. of rhubarb, to be taken at bedtime. On the following morning he was called, found that the woman was in labor, and that labor-pains began at about 9 o'clock on the previous evening. The child was born at 5 A.M., and the labor was in every respect normal. The headache continued, and the patient was somewhat restless. Two drachms of paregoric with ten drops of laudanum were administered. At 7 o'clock A.M. she went into a violent convulsion, which lasted from one to two minutes. When the convulsion had ceased chloroform was exhibited, and the woman was bled from the arm to the extent of twelve or fourteen ounces. The patient became conscious, but was kept moderately under the influence of chloroform, and, at about 8 o'clock, grs. xv. of hydrate of chloral dissolved in water were thrown into the rectum, when she had another convulsion, more violent than the first. As the patient became restless from time to time, chloroform was administered. The infusion of digitalis was increased to  $\text{ij}$ , every four hours. At 11 o'clock another convulsion occurred, but was less violent than the two former. Treatment continued. A goblet of milk was administered within every four hours. When the chloroform was let up for a few minutes, the patient complained of headache and almost complete loss of vision. The pulse, after the first convulsion, was 130, and continued from 116 to 120 during the first twenty-four hours. Temperature,  $101^{\circ}$  F.

On the evening of the next day the patient became somewhat restless; the bladder was emptied with catheter; an injection of fifteen grains of hydrate of chloral was given, and, soon after, another and the last convulsion occurred. A cathartic dose of calomel and jalap was ordered. Only a small quantity of

chloroform was used. The effect of the chloral hydrate was continuous, although the dose was small.

On the following day the patient was better. The disturbance of vision continued, but was confined mostly to the left eye; the disturbance continued for a week and then disappeared. A trace of albumen was found in the urine for two weeks. At the end of that time the woman appeared to be as well as the majority of women were at that period following natural labor.

With reference to treatment in this class of cases, Dr. H. reached the following conclusions:

1. That general bloodletting was called for when headache continued after labor was completed, and was attended by flushed face, restlessness, convulsions of a tonic character, and there had not been much loss of blood with the birth of the child.

2. That infusion of digitalis was useful to steady the heart's action, to allay nervous irritation, and also as a diuretic when aided by the addition of bitartrate of potassa.

3. That chloroform should be used sparingly.

4. That, although it was his first experience in the use of hydrate of chloral in these cases, its continuous action was apparently greater than chloroform, and he thought it was less likely to disturb the brain.

5. That, in cases in which there had been great loss of blood, or great prostration attended by nervous exhaustion, dependence might be placed upon hypodermic injections of morphine for controlling the convulsions. He would not resort to chloroform or to chloral under such circumstances, fearing that they might increase the nervous exhaustion, and thereby favor uterine hemorrhage.

The development of convulsions *after* the birth of the child was, in Dr. Hubbard's experience, quite rare.

In the last *three* cases belonging to this class which had fallen under his observation, general bloodletting had been employed in *two*, and those patients recovered; the case in which it was not employed terminated fatally, although chloroform, leeches, and dry cups were faithfully used. All the cases were *primiparous*.

Dr. A. C. Post referred briefly to two cases in which convulsions apparently were prevented by bloodletting. One woman at the end of the eighth month of pregnancy was taken with giddiness, headache, confusion of thought, twitchings of the features, and partial loss of consciousness. It occurred before the subject of albuminuria in connection with pregnancy was recognized in the profession. As the patient had a full, strong pulse, it was thought advisable to resort to general bloodletting. While binding up the arm for that purpose the woman fainted. Dr. Edward Delafield was called in consultation. Dr. Post expressed the opinion that the fainting was a nervous phenomenon, and did not contraindicate the taking of blood. Dr. Delafield coincided in the opinion. She was bled freely. The headache and other symptoms disappeared, she went on to the completion of her pregnancy, and gave birth to a healthy boy who was now the father of a family. The second case, occurring many years later, had a similar history.

Dr. SELL referred to a case in which convulsions occurred during and after labor. The patient was treated by the administration of croton oil, because of suspected overloaded *prima via*, and by the exhibition of chloroform both internally and by inhalation. The woman had six convulsions in the first series, and three in the second. Bleeding was not resorted to, and yet a good recovery took place.

Dr. DOWNS remarked that he had had fifteen cases

of puerperal convulsions, but in only two cases had the convulsions occurred after labor. Both cases terminated fatally. In one there was no albumen in the urine.

The cases of puerperal convulsions which had occurred before and during labor, and in which resort was had to bleeding, had all terminated fatally, while those patients who were not bled recovered. He had employed hydrate of chloral in cases of puerperal eclampsia with good results.

Dr. HALL referred to a case in which, about two hours after labor, the woman was seized with convulsions and became hemiplegic and comatose. Blood-letting was not resorted to. Chloroform and chloral were used, but a series of convulsions occurred and the patient died at the end of four hours.

There was no indication that albumen might be present in the urine. The urine was not examined. It was supposed to be a case of cerebral embolism.

Dr. CARO remarked that he had seen cases of puerperal convulsions at nearly all stages of pregnancy, during and after labor, and that he had never resorted to general bloodletting or to leeching except in two instances. He had relied chiefly upon infusion of digitalis given in  $\frac{5}{8}$  ss. doses, three times a day, and bitartrate of potassa in  $\frac{3}{4}$  i. doses, three times a day for their prevention.

He thought that puerperal convulsions occurred as the result of nervous disturbances, especially after confinement and independent of albuminuria, or even independent of urea.

A case was referred to in which convulsions occurred apparently from urethral irritation, because they came on only when the woman attempted to pass her urine. When the urine was drawn by the catheter convulsions did not occur. There was no albumen in the urine, the quantity of water was normal, there was neither headache nor edema of the feet, but the countenance had a puffy pallid appearance, and there was disorder of vision.

The Section then adjourned.

## Correspondence.

### MEDICAL EDUCATION IN FRANCE.

THE WAY MEDICAL APPOINTMENTS ARE SECURED—THE OVERCROWDED PROFESSION IN THE UNITED STATES, AND OUR MEDICAL COLLEGES. VAGINAL EXAMINATIONS IN PARIS. THE PAQUELIN CAUTERY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—If I had the wealth of a Vanderbilt or an Astor, I would advertise a free excursion ticket and a week in Paris to ten thousand of our medical men, on the sole condition that during that time they made themselves familiar with the system of medical education and appointments in vogue here, and witnessed a public examination. This examination, or *concours*, is the admirable machinery by which the results of prolonged application are determined and the rewards adjudged to the meritorious. A man needs no friends, no influence, provided he has brain-power. Let him work. Step by step he rises, until he reaches the goal—eligibility for appointment to one of the chairs of the *École de Médecine*. This is the sole position to which candidates are directly appointed without previous immediate competition by *concours*, and possibly some wire-pulling may ultimately determine a choice. But

here is an embarrassment of riches. The government is jealous of a school that has had for teachers such men as Orfila, Trousseau, Cruveilhier, Malgaigne, Bernard, Nélaton, and Velpeau—jealous, I mean, of the repute and lustre of the past lights, and there is no chance, no possibility of an unworthy appointment. It is a precedent, so far as I know never violated, to take the new incumbent from the list of *professeurs agrégés*, and when one knows the innumerable tests to which it is necessary to submit before one is permitted to write *agrégé* after his name, it is certain that if wire-pulling is employed, it is because of the equally extensive attainments of those who are eligible. When men know everything about medicine, it is impossible to say that one candidate is more worthy than another.

My reason for desiring, as a possibility, a great number of American physicians to come and see the methods here is, that I doubt not some improvement will result therefrom to our own wretched system. Patriotism is all very well in its place, but I am not one of those representatives of the great republic who goes about the Old World resolved to find nothing there in which America cannot lick all creation. Indeed, if I had not my hospital certificate to fall back upon, I doubt whether I would announce myself as the bearer of an American diploma. The youngster with his new parchment, certifying to his being a *virum probum*, and all the rest of it, proud of honors won by a diligent grubbing upon Neil and Smith's Compendium, will receive a great shock when he learns that he is suspected of having obtained his document by an equivalent of money and nothing else, for these Frenchmen know well that to obtain a *bona fide* diploma from the best New York schools, the money is the main thing, and consequently they hold his cherished possession in the most particular contempt. Are they not fully justified? To graduate here, a native must first have his baccalaureate diploma. The School of Medicine does not even accord a matriculating examination to French students. The latter must first be prepared by general for professional study. There are five separate examinations to pass, and at the beginning of every third month the student must take an "inscription," that is, register his name at the bureau of the Faculty. After four inscriptions, he is allowed to come up for examination in chemistry, natural history, and botany. After the twelfth inscription, the second examination takes place. This is in anatomy and physiology. At the end of the fourth year, the sixteen inscriptions having been made, pathology, hygiene, legal medicine, pharmacology, materia medica and therapeutics are the subjects for examination. The last examination—the fifth—is instituted at the Hôtel Dieu or La Charité. This is a practical test. The thesis amounts to something else than a relished chapter of a text-book. It is printed, and if exceptionally good, lays the foundation of a reputation for the author. Lastly, students serve in the hospitals, and go through the wards with the professors.

There is real clinical instruction—not merely talks to several hundred persons assembled in an amphitheatre. Let the newly-made M.D. of one of our New York schools ponder on these things, especially if he has taken two full courses: the first, at a winter college, the second, the ensuing spring, at one of those accommodating institutions specially organized so that a man can assume all the honors of graduation after paying his money—this always first—and attending, or strictly speaking, waiting during a course of lecturing of eight months. Medical men here know these things, and very properly decline to



consider the product of our own ridiculously superficial and inadequate course worthy of any comparison with their thorough training of aspirants for a degree. Their own professors are men of eminence who have won their positions and are paid by the Government; they know that in our numerous schools the professors appoint themselves, and by public advertisement and underbidding—such as is found in the circulars of some of our colleges, addressed to physicians and offering to discount the cost of a course to their students—compete for the prize of a large class. Here the only interest of the examiners is to determine the fitness of the candidate to assume the honors of his profession, and they rather enjoy plucking the unlucky dillard! With us self-interest, the money paid, and numerous considerations equally pertinent, combine to insure tender treatment at examinations, and the individual whose gross ignorance and stupidity compel his rejection at the hands of the more important school, can search further with the certainty of finding some impecunious "university" glad to render him full equivalent for his fees.

Here, when a hospital position is vacant, they do not load some well-known name with the additional title, or push a nonentity into the place, to the amazement of those who wonder by what elaborate machinery of wheels within wheels this kind of business is done while the seat is yet warm from the previous occupant. On the contrary, a general public announcement invites those who are entitled, by reason of many previous competitions, to hand in their names, accompanied by their contributions to medical literature, and a record of honors, past and present. This is but preliminary to a new and formidable test, and the decision is made by strict, impartial, skilled judges of the quality of brains—judges who themselves have proved, likewise by public *concours*, their fitness to sit in such a tribunal. These men have heard of our own beautiful and simple process, known to the vulgar as *boosting*. They know how a man who walks on the stage at Steinway's, or the Academy of Music, to the music of the band, and after having been prayed over, to receive a dummy diploma with blue ribbons, may have invisible letters marking him as the special *protégé* of the faculty and the certain future incumbent of a vacant or specially-created chair. It is understood here that the favorite will readily obtain a dispensary position and a "professorship;" that next he will be found airing his anatomy as a demonstrator, and as the proprietor of a favored "quiz;" that, *presto!* the spring is touched, and the humble set of poor practitioners who knew him as a classmate—then not distinguished for anything in particular—look up to him standing on the dizzy heights of a full professorship. Here there are complaints of the overcrowded state of the profession in France, yet the bulletin board of the medical school contains at the present moment no less than ten different appeals from this or that mayor begging a doctor to come and settle in his locality, guaranteeing board, providing the indispensable *voiture*, and offering a stipend of from one to three thousand francs—this sum being over and above the receipts from practice. If a man chooses to work he is absolutely sure of success. There are numerous positions, salaried and desirable, open to any member of the French faculty; but for these there is first the inevitable *concours*.

Is it possible for us in America ever to have a better system? It is only by personal appreciation of the way medical matters are managed here and in Germany, even in England, that the shame and scandal of the way of doing similar things at home force themselves with

effect upon the observer. This subject can never be old or trite until the disinterested part of the profession take matters in their own hands, and not merely demand but work reform. Here the profession is under governmental supervision, in governmental pay; a multitude of venerable forms appertain to it, and the machinery works with the ease and noiselessness that results when time wears away all points of friction. It is as idle as undesirable to wish for legislation on the subject in the United States. Congress has no proper concern with us, but reform is the proper function of the body of intelligent young medical men who must know and feel the disgrace that attaches to us from a system of education that permits a ploughboy or a day laborer, with the one single and only indispensable requisite of a little money, to take his seat on a bench to hear lectures on subjects the very terms of which fall on his ear as the words of a foreign language, and, after eight months—possibly of continuous real or nominal attendance—to be turned loose on society to practise on its infirmities, and to talk in bad English virtuously and indignantly against the quacks. Besides, it is against all reason that the annual spring tides of M.D.'s, fledged by the patent incubating process, are thrown, year after year, on the community, to diminish still further the absurd figure, 600, expressive of the number of people to which there is one physician. Who is benefited by this host of annual accessions—the hosts themselves? No. The body of the profession? How many times has it happened that a new-comer in a locality settled and was doing fairly, with a constituency just sufficient to keep him so, when the next year one, two, or three fresh aspirants, direct from college, came to the neighborhood, spoiled his own business, and went on starvation rations themselves? Is the community at large benefited by new accessions to our ranks? In one respect only: the cheat, whose credit is exhausted everywhere else, can always find a physician to serve him without fee. Who then remains to be benefited by the spring hordes? The thousand professors who compose the faculties of the private speculations known as colleges. It seems that for these favored individuals everybody else must suffer. Many of these institutions are rich. They control all the patronage, so that necessarily eminent men belong to them as teachers. To speak the truth about them is not the way to preferment, but the majority of us had better make up our minds that we can't all be professors, and try for something that united action will make attainable.

I started to write about Paris medical matters, and have gone off riding a hobby instead. The fact that hospitals have their clinics and shows at eight or nine o'clock in the morning makes the effort to attend bad for lazy people. Fortunately I am located near that model of hospital structure, the new Hôtel Dieu, and most of my sight-seeing has been there. Richet, the crack surgeon, is getting old, and shows much shining pate. I never saw a man examine a case more thoroughly. Jolly little Kusco, or Cusco, him of speculum fame, I believe, handles women in a way that would excite excretion at home, and which I can't believe is proper anywhere. To expose women from their feet to their breasts, without the comforting pretence of a sheet, and to punch their abdomens as if he was going to dig the uteri out through the walls, is not the way to make the examination chair a joy and delight. I saw one young woman of some personal attractions, and who seemed to have some modesty left, although she was a low class French woman, tremble as if in ague during the ordeal, and

shriek with pain when he forced his very short forefinger up to the cervix as if he intended to carry all before him. The benzine cautery is much used here. The most painful operation I ever saw without an anæsthetic was a sarcoma removed from the root of the neck. An incision was made around the base of the tumor, save that two little isthmuses of skin were left above and below until the growth had been severed from its connections beneath. These bands of tissue were burned across, and the vessels cauterized at the same time. Lastly the islands of skin were burned through. Save this last feature, the operation struck me as just the procedure for dangerous situations. But it had an unpleasant suggestion of the time they amputated with red-hot knives, and Ambrose Paré, could he have seen it, would doubtless have been scandalized at the abandonment of the ligature.

The most striking thing to a New Yorker about this hospital is the building itself. Save that palace for paupers—the new St. Thomas's Hospital in London—the Hôtel Dieu is unquestionably the finest structure of the kind in Paris or London. It contains at present only six hundred beds. A number are yet to be added, but it covers a much larger space than Charity or Bellevue, and in appointments and service is only rivalled by the new New York Hospital. I suppose our commissioners would give up the ghost if it were proposed to put up a building for a public hospital with the corridors and two immensely long covered galleries of fine dressed stone without a suspicion of plaster; where each one of a long line of stone columns must have cost a large sum; where a chapel of really tasteful architecture looks as solid as if it had been taken bodily from a part of *Notre Dame*; where a steam engine runs day and night to fan fresh air into the wards; where every appointment is of the most costly description; and where, last but not least, the patients are addressed as *messieurs* and *mesdames les malades*.

T. K. CRUSE.

PARIS, FRANCE.

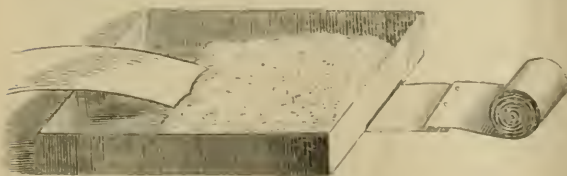
## New Instruments.

### TO PREPARE PLASTER-OF-PARIS BANDAGES.

By W. C. W. GLAZIER, M.D.,

NEW YORK.

I SEND an account and a drawing of a simple apparatus for spreading plaster-of-Paris on bandages while rolling them for surgical use; and which, when no other could be obtained in an emergency, I, as well as



some of my professional friends to whom I have recommended it, have found to answer the purpose admirably.

Taking a common pasteboard box, five inches wide by eight or more inches long and two inches deep—an ordinary envelope box will answer—make a slit close

to the bottom of one end by removing a narrow strip one-sixteenth to one-eighth inch wide. The lower incision should be horizontal and on a level with the upper surface of the bottom of the box; the upper one should slant from without inward and upward. Fasten the box to a board or a table, covered with paper, by a tack through its bottom. Pass one end of the bandage of ribbed crinoline through the slit from within outward, throw on some plaster of Paris, then draw the bandage through the slit and roll it on the table as it is drawn out with the tips of the fingers, or pulling it to the extent of a foot or more with the palm of the hand. The amount of plaster can be regulated by pressing the end of the box inward with the left hand while the right pulls on the bandage.

By fastening the second bandage to the end of the first one, its end may be drawn through under the pile of plaster, and when through the slit may be separated by a pair of shears.

In most works on surgery the directions are to "rub the plaster in;" this applies to material other than crinoline, into the large meshes of which the plaster readily fall on being sprinkled over it.

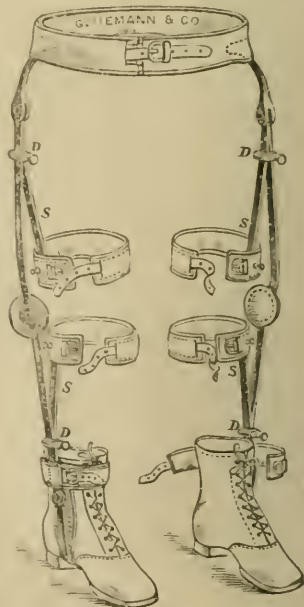
57 WEST 42d.

### A NEW BRACE FOR THE CORRECTION OF CERTAIN DEFORMITIES OF THE LEGS.

By C. W. TRUEHEART, M.D.,

OF GALVESTON, TEXAS.

THE accompanying cut well illustrates a modification of brace for the treatment of knock-knees and similar deformities of the legs, which presents, I think, a new and valuable improvement, and possesses decided advantages over the forms of brace now generally in use.



The springs, s, s, s, s, the bearing of which can be delicately adjusted by shifting the slides d, d, d, d, up or down, are the characteristic feature of this apparatus.

The brace being attached, at the site of deformity on either side, by means of the springs, which fit



closely and firmly to the limbs, perfect coincidence and harmony of movement between leg and brace is secured, which is sadly wanting where the attachment is effected by means of the long straps of the ordinary brace.

The corrective force exerted is continuous, and in all positions the wearer may assume is decided and equable, while at the same time the articulations of the limbs have such a normal freedom of excursion—laterally as well as antero-posteriorly—that no disfiguring habit of gait is liable to be contracted by the patient, and there is no tendency to trip or fall; even the child of only a few years can wear the brace with little or no annoyance, and on first trial walk or even run with surprising ease and precision.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 28 to August 3, 1878.*

SUTHERLAND, CHAS., Colonel and Surgeon. Granted leave of absence for nine months. S. O. 162, A. G. O., July 26, 1878.

TILTON, H. R., Major and Surgeon. Granted leave of absence for four months. S. O. 166, A. G. O., Aug. 1, 1878.

GARDNER, W. H., Capt. and Asst. Surgeon. Relieved from duty at Atlanta, Ga., and assigned to duty at St. Francis Barracks, St. Augustine, Fla. S. O. 15, Dept. of the South, July 28, 1878.

CRONKHITE, H. M., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Brady, Mich. S. O. 136, Dept. of the East, Aug. 2, 1878.

WILSON, WM. J., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Niagara, N. Y. S. O. 131, Dept. of the East, July 27, 1878.

CLEARY, P. J. A., Capt. and Asst. Surgeon. Granted leave of absence for one month. S. O. 134, Dept. of the Missouri, July 30, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 3, 1878.

| Week Ending       | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|-------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| July 27, 1878.... | 0             | 10             | 36             | 2                          | 2        | 18          | 0          |
| August 3, 1878... | 0             | 11             | 40             | 1                          | 5        | 23          | 0          |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., Aug. 3, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during the week ending August 3, 1878, under the National Quarantine Act:

*New Orleans.*—Since report last week 158 cases yellow fever and 36 deaths have occurred, making in all 195 cases and 53 deaths to yesterday evening. There are now four principal points of infection, and these spreading, but Board of Health hope to control it.

One passenger landed Monday at Vicksburg, has

since died of yellow fever; on Tuesday one case taken from hotel to hospital at Cincinnati with same disease—both from New Orleans en route for North.

*Key West.*—No new cases yellow fever four days to yesterday noon. No cases in port; two at Marine Hospital convalescent.

*Quarantine Stations.*—Many vessels arriving at quarantine stations on Atlantic from Cuba bring cases of yellow fever—a common yearly experience.

*Havana.*—One hundred and twenty-nine deaths from yellow fever and thirteen from small-pox, week ended July 20.

*Matanzas.*—No abatement of yellow fever or ratio of deaths, week ending July 26.

*Calcutta.*—Fourteen deaths from cholera, week ending June 1.

*Bombay.*—Thirty-three deaths from cholera during two weeks ending June 11.

*Constantinople.*—Bulk of Russian Army encamped on unhealthy low lands has removed to healthier camping grounds, and most of the refugees in city have gone to Asia Minor and Syria—about 80,000 remaining—since which the typhus, small-pox, measles, scarlet and enteric fevers, which prevailed so extensively near close of war and since cessation of hostilities, have greatly diminished (July 12th).

The epizootic prevails extensively among the cattle of Asiatic and European Turkey.

Reports from other places indicate good health.—JNO. M. WOODWORTH, *Surgeon-General U. S. Marine Hospital Service.*

TREATMENT OF WHOOPING-COUGH.—MM. Louvet-Lamare and Constantine Paul recommend very highly the use of the drosera rotundifolia in the treatment of whooping-cough. They treat the bronchitis of the first period with bryonia, and give the drosera as a sedative for the cough in the second period. They use the tincture, giving from ℥ xv. to ℥ lxxv. daily. M. Louvet-Lamare recommends also muriate of ammonia in the treatment of a frequent complication, viz., an inflammation limited to the lower part of the pharynx, the larynx, and the upper part of the trachea. This inflammation is attended by a slight rise of temperature, and is characterized by a virulent, tearing cough, for which the physical examination of the chest affords no explanation. He gives about seven grains a day to a child of seven years.—*Lyon Medical*, June 16th.

TREATMENT OF PSORIASIS UNIVERSALIS.—In the treatment of this very obstinate affection Prof. Kaposi claims to have obtained very favorable results from the use of innunctions with cod-liver oil, baths, and rubber bandages. Sometimes the innunctions produced a very troublesome eczema, and they had to be discontinued. In such cases the continuous bath and envelopment of the part in bandages smeared with diachylon ointment proved serviceable.—*Centralblatt für Chirurgie*, No. 24.

TREATMENT OF ASTHMA BY IODIDE OF POTASSIUM SPRAY.—Dr. Eyraud, of Osenne, has obtained very satisfactory results, in a severe case of asthma, from the use of a spray of iodide of potassium. The patient, a man 30 years of age, had suffered for eight months from daily attacks of asthma, and had also been subject to chronic bronchitis for five years. At the time the treatment was begun, he had three or four attacks a day, and was reduced to a pitiable condition. After assiduous use of the spray for eight days, the asthmatic attacks had almost entirely ceased. Eighteen months have elapsed since then, but the patient has

continued to use the spray, and the attacks have not recurred. The strength of the solution used was 1 to 20. The *sauces* of inhalation were short, but frequently repeated; the quantity of the drug thus administered by the bronchi being about the same as that given internally by Prof. Sée. — *Jour. de Méd. et de Chir.*, June.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY. — The officers elect for the year 1878-79 are: *President*, Henry D. Noyes, New York; *Vice-President*, William F. Norris, Philadelphia; *Secretary and Treasurer*, R. H. Derby, New York; *Publishing Committee*, R. H. Derby, D. B. St. John Roosa, E. G. Loring.

THE AMERICAN OTOLOGICAL SOCIETY, at its ninth annual meeting held in Newport, R. I., on July 24th, elected the following officers for the ensuing year: *President*, Albert H. Buck, of New York; *Vice-President*, Charles H. Burnett, of Philadelphia; *Secretary*, J. Orne Green, of Boston.

CAFFEINE AS A DIURETIC. — Prof. Gubler asserts that caffeine and the other alkaloids analogous to it, such as theine, mentheine, etc., are excellent diuretics. They act very rapidly, and are particularly useful in cases where other medicaments can no longer be tolerated. He gives these alkaloids in doses of from four to eight grains a day. The following formula is the one usually employed by Prof. Gubler:

R. Caffeine (or theine or mentheine)... gr. vijss.  
Syrup. menthae..... ℥ j.  
Aque melissae..... ℥ ijss.  
M.

— *Le Progrès Médical*, June 15th.

ADMINISTRATION OF OPIUM TO CHILDREN. — In the lectures of M. Simon, recently published in the *Progrès Médical*, we find some convenient formulas for the administration of opium to children. According to M. Simon one often meets with girls from six to eight years of age, who are already dyspeptic and nervous. Many of them suffer from gastralgia. In addition to a general tonic treatment, and appropriate moral and physical hygiene, a preparation like the following may be prescribed with advantage:

R. Tinct. Colombo..... 3 ijss. (10 gms.)  
Tinct. belladon..... ℥ lxxv. ( 5 “ )  
Tinct. aconiti..... ℥ lxxv. ( 5 “ )  
Tinct. camphor. comp.... ℥ lxxv. ( 5 “ )  
M.

Dose, from five to ten drops before each meal.

In affections of the respiratory passages, particularly when they possess a spasmodic character, which indicates the important part played by the nervous element, belladonna and aconite will render valuable services. For children over two years of age a little opium may be added:

R. Tinct. belladonnae,  
Tinct. aconiti rad..... āā ℥ lxxv. (5 gms.)  
Vinii opii..... gtt. v.  
M.

Dose, three drops morning and evening, which may be increased by a drop a day.

Or the following formula, which is more convenient, may be employed:

R. Syrup. codeini (Fr. Ph.),  
Syrup. belladon. (Fr. Ph.) āā ℥ xijss. (50 gms.)  
M.

Dose, a teaspoonful to a dessertspoonful *per diem*.

PURGATIVE MILK. — In his book on *Le lait, La crème et Le beurre*, M. Husson calls attention to Planche's

formula for purgative milk, a cathartic which has the advantages of being easy to take and certain in action.

R. Resina scammoniae... grs. vi. (40 ctgms.)  
Sacch. albæ..... ℥ ijss. ( 10 gms.)  
Trit. et ad. gradatim:  
Lactis puri..... ℥ vi. (100 “ )  
Aq. laurocerasi..... ℥ xlv. ℥ i. ( 4 “ )  
M.

A single dose for an adult.

— *Jour. de Méd. et de Chir.*, June.

STILBEINE, A PREPARATION FOR CLEANSING INSTRUMENTS. — This handy preparation is simply a combination of rubber and impalpable emery powder. It comes in tablets of the shape and size of the ordinary rubber eraser. It removes rust and blood-stains, etc., immediately, and without scratching or soiling the instrument. All that is necessary is to rub the instrument with the composition, when it rapidly acquires a brilliant polish. — *Année Méd.*

TREATMENT OF FURUNCLES BY ARNICA. — Dr. Planat, of Nice, claims that arnica has the power of aborting an eruption of boils, except when due to diabetes, with extraordinary rapidity. His method of employing it is very simple. In order to render its action on the small vessels more energetic, he applies it directly to the inflamed spot in the form of an ointment, of which the formula is as follows: Extract of fresh arnica flowers, ℥ ijss., honey, 3 v. If the mixture be too fluid, he adds powdered lycopodium or althaea, or some other inert powder, until it acquires the proper consistency. It is then spread pretty thickly on a bit of oiled silk or diachylon plaster, and applied directly to the boil. It is rarely necessary to renew the dressing more than once in twenty-four hours. As a rule, two or three dressings are enough to make the furuncle abort, no matter what be the period of its evolution.

A curative action is also obtained by the internal administration of the drug. Dr. Planat gives from three to four drops of the tincture, largely diluted, every two hours, and he has seen the furuncular eruption disappear very rapidly under the treatment. — *Jour. de Méd., etc., de Bruxelles*, May.

EXCRETION OF ALBUMEN IN THE URINE OF HEALTHY PERSONS. — Prof. Leube has found that albumen frequently appears in the urine of persons who apparently are in the enjoyment of perfect health. He found it in four per cent. of persons who had not been subjected to any severe corporeal exertion, and in sixteen per cent. when the evacuation of urine was preceded by a few hours of bodily labor. The quantity of albumen excreted varied from 0.04 to 0.07 per cent. — *Allg. Med. Cent. Zeit.*, No. 48.

GEOGRAPHICAL DISTRIBUTION OF THE TAPEWORM IN SWEDEN. — The cestodeans of men have hitherto been relatively little studied in Sweden, but there, as well as in other European countries, special peculiarities seem to exist in the geographical distribution of the different varieties. According to the statements of Prof. Hedenius, of Upsala, the tenia solium predominates in Southern Sweden, while in Norrland and Upland the bothriocephalus latus is chiefly met with. In the collection of the Pathologico-anatomical Institute, in Upsala, the specimens obtained from the town and surrounding country are almost exclusively of the latter variety. Prof. Hedenius has only met with the tenia medio-cannellata once in Upsala. — *Deutsche Med. Wochen.*, No. 23.



## Original Lectures.

LEUCOCYTHÆMIA—APOPLEXY AND  
HEMIPLEGIA—CARCINOMA OF  
STOMACH.A CLINICAL LECTURE DELIVERED IN BELLEVUE HOS-  
PITAL,

By AUSTIN FLINT, M.D.,

PROF. OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND CLINI-  
CAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Reported for THE MEDICAL RECORD.]

LEUCOCYTHÆMIA—LEUKÆMIA—PERNICIOUS ANÆMIA—  
DIAGNOSIS—PROGNOSIS—INDICATIONS FOR TREAT-  
MENT.

GENTLEMEN:—This case belongs in a group of cases which are of much interest and importance, as well as of much obscurity. In the group of cases to which I refer, the most prominent feature is a persistent, progressive, and generally fatal anæmia.

Some forty or fifty years ago, Dr. Addison, whose name is connected with one of the forms of disease belonging to this group, gave a very graphic description of what he termed "idiopathic fatal anæmia." He also described certain cases of idiopathic anæmia characterized by a dark discoloration of the skin—that form of discoloration of the skin familiarly known as Addison's disease.

Some thirty years ago, Virchow, of Berlin, and Bennett, of Edinburgh, described an affection to which they gave the names leukæmia (Virchow), and leucocythæmia (Bennett). The cases also which those observers described belong to this group. Both of these gentlemen called attention particularly to the fact that in the cases to which they alluded there was a marked increase in the number of the white corpuscles in the blood, together with a marked diminution in the number of red corpuscles.

The alterations with reference to the corpuscular elements of the blood in this disease are very great. In extremely marked cases, the proportion of white to red blood-corpuscles is reduced to one in twenty, whereas in health the number of red blood-corpuscles vastly exceeds that of the white.

Subsequently it was found that certain cases presented the general characteristics of leucocythæmia, but in them this change in the blood was not observed. To this class of cases the same observers applied the name "pseudo-leucocythæmia" and "pseudo-leukæmia." They also are characterized by progressive and marked anæmia.

Something over forty years ago Dr. Hodgkin described a class of cases in which there was a notable enlargement of the lymphatic glands throughout the body. He was the first to call attention to that feature, and the disease is now known under the name "Hodgkin's disease."

In this disease also the most prominent feature is anæmia, marked in degree and progressive.

There is, then, a group of cases which has one common feature, and that is a *progressive and persistent anæmia*. There is a certain degree of analogy between these cases, although they differ in some respects. Concerning either one of these affections belonging to this group, our pathological knowledge is incomplete, and just how far they are identical and in what essential particulars they differ, is now difficult to say.

We have before us a case to which the name leuco-

cythæmia can be applied, and by means of the microscopes now ready to be passed around, you will be able to observe the blood and see the predominance of the white corpuscles.

Within the last few years a class of cases has been described under the term "pernicious anæmia." It is termed pernicious to distinguish it from cases of anæmia, common enough, which do not possess, as a rule, any very great gravity, and in which the affection of the blood is usually amenable to appropriate treatment.

Cases of leucocythæmia differ in the following respects: in some cases there is notable enlargement of the spleen; in other cases there is notable enlargement of the lymphatic glands in different parts of the body. Some, therefore, have divided the cases of leucocythæmia, and have made a division based upon these points of difference.

But we meet with cases of pernicious progressive idiopathic anæmia in which we do not find leucocythæmia; neither enlargement of the spleen, nor enlargement of the lymphatic glands, in which, in fact, all that is discovered is the existence of the anæmic condition. It so happens that such a case came under my observation a few days ago, and at the autopsy nothing was found by which the anæmic condition could be explained.

I will next read the history of the case before us this afternoon: The patient's name is Smith, and he is sixty-one years of age. He is a machinist by occupation, and was admitted to the hospital nearly two months ago. His father died of consumption; his mother of old age. He has three sisters and one brother, but there is nothing specially notable in their medical history. The patient has been a hard-working man, and also a hard drinker. Some years ago he had gonorrhœa, but there is no syphilitic history. He had acute articular rheumatism when nineteen years old, and was confined to the bed three months. He has never had a second acute attack, but has had several subacute attacks of the same disease. He had three attacks of intermittent fever when a young man. About *three* years ago he began to feel unusual fatigue after *ordinary* exertion. He was troubled with slight dyspnœa on going upstairs, and his feet were somewhat œdematous. Although the anæmic symptoms were progressive, he kept at work until about *fourteen* months ago, when he first noticed a peculiar enlargement of the abdomen. A hard, ridge-like enlargement was found occupying the upper portion of the abdomen, to the left of the median line. There was some pain over the tumor. He had never had any pain over the region of the liver. The patient ceased work on account of increasing debility and dyspnœa. He became slightly jaundiced. He has never had any hemorrhages, nor vomiting, nor diarrhœa, nor bronchitis. He has had considerable œdema of the feet, but to some extent that has disappeared. He has not had general dropsy. There has been some febrile movement at night. The items of special interest in the clinical history of the case at present are dyspnœa, œdema of the lower extremities and general debility, together with a marked increase of the relative number of white blood-corpuscles and a corresponding diminution of the red corpuscles. His bowels are constipated. There is no albumen in the urine. There is a marked enlargement of the spleen, and the lymphatic glands in the groin are also somewhat enlarged. The heart is displaced upward, the lungs are normal, and the liver is very slightly increased in size.

As we look at the patient we see that his face presents a distinctly anæmic appearance, with a slight tint of sallowness. From the appearance of his face we

might naturally suspect that he is the subject of malarious cachexia. Directing attention to the abdomen, I feel very distinctly the margin of a solid tumor; there is a sense of resistance when pressure is made, which indicates the presence of a solid body. The long diameter of the tumor extends from the upper border of the spleen to the pelvis. By manipulation, the *hilus* of the spleen can be recognized. The apex of the heart is beating in the *fourth* intercostal space, and a little to the left of the normal position. There is a systolic murmur in the arteries.

#### TYMPANITIC RESONANCE CONVEYED BY A SOLID ORGAN.

I will here take occasion to remind you that tympanitic resonance can be conveyed to some distance by a solid organ. This is very well illustrated in this case. As you see, the margin of the tumor can be distinctly made out by palpation; but, as I make percussion, the tympanitic note obtained upon the right side of the abdomen is conveyed to a considerable distance beyond the border of the solid body. This is an important point to be taken into consideration in determining whether any change has taken place in the size of the solid organ. We have to deal then, in this instance, with a distinct case of leucocythæmia with marked enlargement of the spleen. It is, therefore, a case of the *splenic* variety of that affection.

There is much that might be said with reference to the pathology of the disease, but I will simply say that, in view of the leucocythæmic condition of the blood, we naturally enough direct our attention to those organs in which the formation of red blood-corpuscles takes place. The spleen is believed to be one of those organs. Our knowledge as to the exact manner in which the red blood-globules are formed is yet for the most part theoretical.

It is most important and interesting to the patient to know what is to be done, and how much can be done towards effecting a cure. In a clinical aspect, the indications for treatment are distinct. Our object is to develop an appetite and promote digestion and assimilation, for the purpose of improving the condition of the blood.

These are the plain indications for treatment. Cases of this kind, as a rule, steadily progress, no real improvement taking place. Prognosis is very unfavorable. Yet it is proper, as far as possible, to follow out the evident indications. Chalybeate tonics may be used, with the hope that they may in some way contribute to the formation of red blood-corpuscles and a corresponding diminution of the white corpuscles. The termination of these cases is by gradual or rapid asthenia, or by syncope.

By way of diagnosis, I will remark that the general condition of the patient characterized by progressive anemia is suggestive of malignant disease. Taking into view the infrequency of leucocythæmia, we should examine all parts of the body with special reference to the existence of carcinoma. The anemia, the dropsical effusion, and the general debility are all consistent with the existence of malignant disease, and when we are able to exclude this condition, our attention may be turned towards anemia pernicious in character. I think cases of leucocythæmia with propriety may be embraced under the general term pernicious anemia.

#### APoplexy and Hemiplegia—Causes—Differential Diagnosis Between Cerebral Hemorrhage and Embolism—Indications for Treatment—Notable Symptoms.

We will now turn our attention from this subject to

one quite different in character, which will be illustrated by this case.

We have here a case of hemiplegia following an attack of apoplexy. The patient is a widow, 70 years of age, a domestic, and was admitted to the hospital on the 22d inst. No family or personal history can be obtained. She was quite well up to the morning of the 21st, when, while sitting in a chair, she suddenly became unconscious, fell to the floor, and was found to be paralyzed upon the right side, and unable to speak. She was unable to swallow, and this is a feature of the case which is interesting and unusual. Of course a patient in intense coma may not be able to swallow, but when the coma subsides the power of deglutition returns. In this case, even after the patient has recovered to a certain extent, there is great difficulty, almost amounting to inability to swallow.

Her condition remained unchanged until admission. When admitted she was in a semi-unconscious state, and the right side of her face, her right arm, and her right leg were paralyzed. There was more motion in the leg than in the arm, which is the rule unless both are completely paralyzed. There was marked rigidity of the right arm and leg, and sensation was notably impaired upon the right side of the body. The right eye was not so closely shut as the left, and was suffused and congested. The right cheek was more flaccid than the left, and the right corner of the mouth was lower than the left. The patient did not speak, but seemed to comprehend some words which were spoken to her.

She was unable to put out her tongue, but would make an effort to bring it out with the left hand. She continually put her hand to the side of her head, as if in pain. This point is important as bearing upon the cause of the hemiplegic condition. The pulse was slow, the respiration normal, and the temperature 100° F. Her nutrition was good. The liver and spleen were normal. No signs of general bronchitis were present. The patient yawned, a thing that not unfrequently occurs with patients with various cerebral affections. The urine was normal.

The treatment consisted in the administration of two drops of croton oil, which produced two free evacuations from the bowels, and the introduction of milk and whiskey into the stomach by means of the stomach-pump. She also received *three* nutritive enemas at intervals of four hours. The first was not retained. Half an hour before the second was given a suppository containing tannic acid was used, and the remaining nutritive enemas were retained.

On the 22d inst., at 7.30 p.m., the temperature in the right axilla was 100° F.; in the left axilla, 97½° F. There is no special important practical conclusion to be based upon this, but it is a noticeable clinical fact. At 9 p.m. the temperature in the right axilla was 100° F., and in the left, 95° F.; at 11.30 p.m., in the right axilla the temperature was 97° F., and in the left, 95° F. On the 23d, morning, right axilla, 100½° F., left axilla 99° F.; at 5 p.m., right axilla, 100° F., left, 98° F.; at 8.30 p.m., right axilla, 99° F., left, 98° F.; at 11 p.m., right axilla, 98½° F., left, 98° F.

From the record it is seen that the temperature was raised upon the *affected* side as the result of the paralysis. Bowels constipated. Urine drawn with catheter.

On the 24th inst., patient in about the same condition as on the day previous. The same difference in the temperature upon the two sides of the body continued. On the 25th inst., the temperature in the right axilla, in the morning, was 100° F., and in the left, 98½° F. In the evening of the same day the temperature in the right



axilla was  $99^{\circ}$  and  $97^{\circ}$  F., while upon the unaffected side the temperature in the axilla rose to  $100^{\circ}$  and  $100\frac{1}{2}^{\circ}$  F. Here was a distinct elevation of temperature upon the *unaffected* side. On the 26th inst., the temperature in the right axilla was  $99\frac{3}{4}^{\circ}$  and  $98\frac{1}{4}^{\circ}$ , while upon the left side it was  $100\frac{1}{2}^{\circ}$ ,  $100^{\circ}$ , and  $98\frac{3}{4}^{\circ}$  F.

Thus, you see, there was, up to yesterday evening, an elevation of temperature upon the affected side, but then there was exactly the reverse; the temperature upon the affected side was falling to a trifle below the normal and upon the unaffected side rising as high as  $100\frac{1}{2}^{\circ}$  F.

There are points in this case which possess a certain amount of interest, and I shall direct your attention to this question: What is the cause of the apoplectic seizure, and of this paralysis? In attempting to answer that question, we must first place before our minds the different conditions which may produce apoplexy and hemiplegia. We are limited in the answer to this question by the fact that we have apoplexy followed by hemiplegia. That fact enables us to exclude certain causes of apoplexy without hemiplegia. For example, we are able to exclude meningeal hemorrhage, which would produce apoplexy, but not necessarily hemiplegia. In fact, the differential diagnosis in cases like this resolves itself into the almost exclusive consideration of *two* conditions. The various affections which might cause coma more or less gradually are readily excluded. We can throw out of consideration meningitis, tumor, and probably thrombosis.

The two conditions between which we are to decide are these: embolism and cerebral hemorrhage.

Let us consider what the points are in this case which favor the one or the other of these conditions.

In both the attack occurs suddenly. In both loss of consciousness may be absolutely complete. In both we expect the occurrence of hemiplegia. In the first place, embolism involves, as a rule, the existence of cardiac disease or the formation of thrombus in the heart. It is therefore important to determine whether or not disease of the heart is present. In this case there is no disease of the heart represented by physical signs. That is one point against embolism. The age of the patient is another point against embolism. Embolism, it is true, may occur at all ages, but it is more likely to occur in early or middle life, whereas cerebral hemorrhage occurs only rarely in middle or early life, but, in the very great majority of instances, after the middle and in the later periods of life.

Does the fact with reference to the side upon which the hemiplegia occurs have any bearing upon this question? It is of some assistance. In much the larger portion of cases, when the hemiplegia proceeds from embolism, it affects the right side of the body.

In a considerable proportion of cases, hemiplegia produced by cerebral hemorrhage is upon the right side of the body.

Again, it has now been *five* days since this patient had her apoplectic seizure. In most cases of sudden loss of consciousness and hemiplegia from embolism, there is a more distinct improvement as regards intelligence and paralysis than has taken place in this case. The fact, then, that this patient, after this number of days, has regained only in so limited a degree her mental power, and has improved so little, if at all, in her paralysis, is very strong evidence in favor of cerebral hemorrhage and against embolism. These are the more important points which are involved in the question of differential diagnosis. The conclusion which we reach, then, is this: that in all probability we have to deal with a case of apoplexy and hemiplegia pro-

duced by cerebral hemorrhage. There is another point, but I am not sure that we can bring it to bear very strongly in this case; perhaps we can to some extent. If we have hemorrhage in the brain, we have a clot formed. This clot constitutes a foreign body and excites around it a certain amount of circumscribed inflammation. Consequently there is likely to be some pain referable to the head, if the patient is conscious of it. In this instance it is a fair presumption that the patient has had some pain, for at one time she indicated it by carrying the left hand to the head very frequently. Moreover, with this circumscribed inflammation about the clot, there is likely to be some fever as indicated by the temperature and the pulse, and occasionally slight delirium occurs. When these symptoms are present they seem to me to point to cerebral hemorrhage in contrast with embolism. In this case we find that there has been elevation of temperature upon the *unaffected* side of the body. There has been elevation of temperature upon the affected side, but the effect of the paralyzed condition is to increase the temperature; hence, we cannot take it as evidence of inflammatory action, but when it occurs upon the unaffected side, we can, perhaps, take it as evidence of increased temperature produced by inflammatory action.

These are the points which go to corroborate the diagnosis of apoplexy and hemiplegia produced by cerebral hemorrhage. I will add that the indications for treatment are very simple. The patient is to be nourished, and this is being done by the introduction of food into the stomach and the rectum. Proper palliative remedies may be used as the symptoms indicating their employment may arise. When recovery has taken place to a certain extent, the object of treatment will be to cause return of will-power through the paralyzed muscles.

[The case was presented two weeks later. There was considerable improvement. The patient could swallow and had considerable control over the affected lower extremity, with a moderate amount of control over the upper extremity. She had recovered from the immediate effect of the extravasation. Aphasia was apparently complete.]

#### CARCINOMA OF THE STOMACH.—PROBABLE ULCERATION.—INDICATIONS FOR TREATMENT.

The next case which I present to you is J. B., *æt.* 40, a carman, and he says he has been sick five or six months. On questioning him, we find that his chief ailment relates to the stomach. He has had pain, which he refers to that region; not severe, but a dull, heavy pain. He has vomited almost daily during the time in which he has been sick; he has vomited from one to two hours after taking food; he has never vomited blood; he feels distress in the stomach after taking food, and feels a sense of relief after the vomiting has occurred. He has lost in weight between thirty and forty pounds.

Vomiting, in the first place, occurring in a man, and, in the second place, persistently, as in this case, implies some affection of the stomach. In young subjects, especially women, vomiting may persist for a very long time, and yet be purely a functional affection.

What this patient says relative to the occurrence of vomiting at a certain time after the ingestion of food, and the act of vomiting being followed by relief, is a fact of considerable importance. The natural interpretation is this: there is a condition of the stomach which renders it unduly susceptible to the presence of aliment. It occasions distress while it re-

mains in the stomach; but when, finally, vomiting has been excited and the offending material has been removed, there comes a sense of relief. Such symptoms point to ulcer of the stomach. In acute gastritis or even in chronic gastritis, if vomiting takes place after taking food, it occurs more quickly than in this case.

The aspect of this patient is not that of an unhealthy man. What we are to look for in such a case as this is either ulcer or carcinoma. If carcinoma, ulceration is likely to be a concomitant. Upon what are we to base our diagnosis? We are to depend upon what we discover by manual examination. If we are unable to find any tumor which we can refer to the stomach, the probabilities will be in favor of gastric ulcer. If, on the contrary, we do find a tumor that can be connected with the stomach, taking this history as given to us by the patient, we may make positive diagnosis of carcinoma of the stomach with ulceration. We say carcinoma with ulceration, because the distress and vomiting after taking food, relate to the ulceration, which is concomitant to the carcinoma.

*Physical examination.*—It does not require much examination to determine that this man has an abdominal tumor which is not at all desirable. It can be isolated completely from the liver. It is rather movable. It is lobulated. It is in the neighborhood of the pylorus. The mobility of such tumors depends upon the extent to which attachments have been made to the surrounding parts. Associating what we find here with the history of the case, we need feel no hesitation in making the diagnosis of carcinoma of the stomach.

With reference to treatment, it is merely palliative. Pain in this instance is a symptom to be palliated; so also is the vomiting. I should say, prescribing for the patient as now presented, that some form of opium is indicated. I prefer to use codeia, for the reason that it is much less liable to produce disagreeable after-effects than are some of the other preparations of opium. I should recommend, therefore, that this man take  $\frac{1}{4}$  of a grain of codeia twice a day.

## PRACTICAL OTOLOGY:

BEING CLINICAL LECTURES DELIVERED AT THE NEW YORK EAR DISPENSARY.

By SAMUEL SEXTON, M.D.,

NEW YORK.

### I.

#### ACCUMULATIONS WHICH OBSTRUCT THE EXTERNAL AUDITORY MEATUS.

The accumulations which are frequently found in the external auditory meatus, not including foreign bodies proper, osseous growths, or tumors, are often a source of painful anxiety to physicians, especially when efforts, at their removal are unavailing, and I hope therefore, that an attempt, however much it may fall short of the end in view, to extend to others the results of my own clinical experience, may be well received and, perhaps, also somewhat improve the present mode of treatment in these cases.

It will be instructive to first give the etiology of this affection.

#### ETIOLOGY, ETC.

These accumulations are found at all ages. They are, perhaps, slightly more frequent in men than in

women; and they are quite common in childhood. Indeed there are very few persons who, at some period or other of their lives, have not experienced greater or less inconvenience from this cause.

It has long been known to otologists that accumulations in the external auditory canal are frequently associated with other abnormal conditions, but I am fully convinced that more thorough observations will prove that such collections are almost invariably the sequence of definable diseased action elsewhere. A more careful observance of these conditions, will, I am persuaded, enable us to inaugurate more successful methods of treatment than exist at the present time, especially as regards their prevention.

The symptoms which will be found most prominent in the greater number of these cases is hyperemia, and I shall now endeavor to describe the circumstances under which it is developed.

*Hyperemia* of the ear may depend upon numerous remote causes, but I shall only refer to those which concern us most. In general, it may be stated that strong mental action, and the use of alcoholic beverages, play an important part in increasing cerebral circulation, and in inducing a state of hyperemia of the ears. Men are more subject to these conditions than women, and they are likewise more exposed to cold, which facts would tend to confirm the statement that men are more frequent sufferers than are women. The more important causations are now to be mentioned.

Perhaps the most frequent one, in adult life, is an increased action of the heart, although I would not be understood as limiting it to that period. Every one has observed the flushing of the face and auricles when under excitement the heart's action is increased. The aurist is familiar with the everyday statements of patients that they experience "burning in the ears" as well as "throbbing of the heart;" and that the "ears itch," so that it is with difficulty they restrain from violently scratching the meatus with pins or anything convenient to use for the purpose.

These symptoms are indicative of hyperemia of the ear.

*Irritation of the nerves* in sympathetic relation with the ear, especially of the mouth and pharynx—is a cause of hyperemia, and may even set up a genuine inflammation.\* Thus the act of dentition; caries of the teeth; ulcers of the mouth or pharynx; enlarged tonsils; naso pharyngeal catarrh; ulcers and polypoid growths in the nose, etc., conditions constantly met with, are causes of a hyperemia, which, when long continued, lead to serious alterations in the nutrition of the parts affected. Results of this altered action of the part are increased secretion of the cerumen and exfoliations of the epidermis, two principal constituents in the accumulations found in the locality we are describing.

With this brief account of some of the causes of accumulations we will pass on to others, namely:

*Inflammatory affections of the middle ear and external auditory meatus.* Inflammations of the middle ear seldom fail to induce hyperemia or even inflammation of that portion of the external meatus, immediately connected with it by continuity, and the inflammatory affections of the meatus itself have even a greater tendency to produce accumulations which obstruct the canal to a greater or a less degree. Otologists have frequently observed this fact. In one hundred and sixty-five ears from which Toynbee removed

\* *Vide* paper read before the Med. Soc. of London, Jan. 29th, 1877, on Some Sympathetic Ear Symptoms, by Dr. E. Woakes.



accumulations, only sixty were free of other aural disease.

I have recorded a case of acute purulent inflammation of the middle ear where there was a proliferation of a white humid mass, of a texture resembling macerated epidermis, which formed so rapidly as to completely fill the inner half of the meatus in twenty-four hours. I was unable to remove it by syringing and had to tear it away by piecemeal with forceps. It reformed several times. This was in very hot weather. The discharge was not great but there was considerable pain. The patient was a woman and was nursing her child during the attack described. The inflammation came to a satisfactory conclusion. She had previously suffered from a purulent inflammation of the same ear.

*The free growth of hair* in the meatus, which is found most frequently in those beyond middle life—usually confined to men—furnishes a nidus for accumulations, as it prevents the escape of flakes of cast-off epidermis and cerumen.

*Operatives in dusty employments* are subject to accumulations in which dust is found to be an important part. Every ablation in these cases increases the obstruction by the addition of a little soap and water to the mass.

*Foreign bodies* furnish the nucleus for accumulations in numerous instances. Their presence is an excitant to the secretory function of the integument of the meatus, and they also prevent the escape of the flakes of dried cerumen as they form. The imprisoned object may consist of a pledget of wool or other substance, introduced to convey a medicament, or to protect the ear from the atmosphere, and carelessly allowed to remain until its presence is forgotten.

Or vermin may become lodged in the meatus, and being unable to escape, remain to be surrounded by accumulations. I have thus found the bodies of various insects. It is not an infrequent amusement of childhood to put into the meatus cherry pits, grains of corn, peas, beads, beans and the like, which may remain for years quietly embedded in the accumulations which their presence attracts.

*The Eczanthemeata*, as is well known, are often followed by aural disease—the hyperæmia and inflammation from this cause are of course the same as from the causes previously mentioned. I have observed large accumulations arising in young children from this source.

*Inspissated pus* and other products of chronic purulent inflammation of the middle ear may contribute to these formations, but when the discharge is abundant it keeps the canal free.

Such, in brief, are the more frequent causes of accumulations in the external auditory meatus. When the drum-head is absent the tympanic cavity is also likely to be occupied by the collection.

They may remain for a lengthened period without attracting the patient's attention, and be the occasion of more or less damage to the organ of hearing. A more frequent inspection of the ear should be made than is the custom, especially in children. I have known the presence, in the meatus of a child, of a small collection of desiccated epidermis, thrown off during an attack of subacute aural catarrh of the middle ear, to produce so much suffering from the sympathetic cough induced as to excite the suspicion that pneumonia existed. As soon as the hard irritating particles were removed from the ear the patient recovered.

I will now consider the accumulations themselves.

#### CHARACTER OF THE ACCUMULATIONS.

The appearance of accumulations will vary according to their character and the stage of the process.

After inflammations of the middle ear the inner extremity of the meatus will always be found to have been involved, as the integument in that locality is far more delicate than in any other portion of the canal. We have here to deal more especially with non-suppurative inflammations, and in them we shall find the epidermis loosened and more or less humid where it joins the drum-head. This condition will often be found when the catarrh of the middle ear has been so slight as to pass unnoticed by the patient. Frequently there will be an admixture of cerumen in these exfoliations. In some cases where a sympathetic hyperæmia exists in the meatus it will be filled by a *soft pasty exudation*, which has a tendency to rapidly reform as long as the exciting cause remains active. There is but little cerumen in this variety, and it is of a light cream color.

Not infrequently, when this exudation is only thrown out temporarily, it becomes *very hard*, forming an incrustation upon the walls of the meatus. This friable substance is attended with itching as it begins to fall off in particles. A patient, subject to accumulations, informed me that during one attack, similar to the last described, the particles, as fast as formed, flew off with such violence as to be carried some distance away from the meatus.

*Mould* is quite often found upon the walls of the meatus, usually springing from a light deposit of cerumen which is spread over the canal.

Several varieties of *aspergillus* have been discovered under these circumstances, their growth depending upon humidity and warmth, conditions favoring fungoid development elsewhere.

*Soft cerumen* in small quantities is found upon the walls of the meatus of most people, and if undisturbed it undergoes gradual desiccation and falls out of the meatus unobserved. Where it has been secreted in slight excess, and where the meatus was large enough to receive the finger or some object used to wipe it out I have observed the cerumen spread over the walls by the wiping process until it adhered as a hard coating, which could not be removed without bringing away portions of the underlying epidermis. This soft cerumen, however, frequently collects in the meatus in such quantity as to completely fill it from the drum-head or near it to within ten or fifteen millimetres of the outlet. Its consistence will allow the ready passage through it of a probe or curette. *Inspissated cerumen* is the term usually applied to this mass. Hard, *desiccated* masses are formed by the complete evaporation of the aqueous constituent of the collection. They are usually dark in color, and appear polished when seen from without.

Blake describes an accumulation, which he considers to be either an exudation or proliferation, characterized by the difficulty experienced in its removal. I have met with two or three of these cases and can fully confirm all that Blake so well describes.\* The cause of this dense pasty mass is not clear.

But, whatever the nature of the accumulation, it will be found to contain more or less epidermis; sometimes, indeed, layer after layer of exfoliations will be found in a mass, which after removal, has been allowed to macerate in warm water. Of course, from what has been said in describing the origin of accumulations, we may expect occasionally to find them to contain hairs, pus, foreign bodies, etc.

\* Vide Archives of Clinical Surgery, New York, June 15, 1878.

## DURATION OF COLLECTIONS.

The collections found in connection with catarrhal inflammations of the middle ear, consisting of exfoliated epidermis, or soft cerumen, or both combined, begin to form simultaneously with the inflammation, but are frequently unobserved at first. It is after adult life that most of the prominent collections are found, the hard, desiccated variety being observed mostly in the aged, where the drying goes slowly on until the plug has an almost metallic density.

## SYMPTOMS OF THE PRESENCE OF ACCUMULATIONS.

The *hard exfoliations* and exudations found in the meatus produce itching and more or less pain; they, moreover, are liable to reflexly excite cough.

The *soft exfoliations and cerumen*, when abundant, are described by patients as giving the ear a "stuffy" feeling and "muffling" hearing.

The *presence of moults* sets up, sooner or later, considerable irritation of the meatus, including, sometimes, an inflammation of the middle ear.

The *pasty exudation* seems to occasion distress by the accumulation pressing inward as it increases.

It is when these accumulations, filling the canal, of whatever nature, become disturbed from any cause, that they occasion much distress.

*Impaction of accumulations.* The repose of such a collection as last described is, sooner or later, doomed to a violent interruption. This accident usually results from water entering the meatus while the patient is bathing—and notably in the Russian bath—or from the introduction of a finger or the roll of the napkin in the subsequent endeavor to cleanse and dry the canal. Or the accumulation may be loosened by sweating, going into a moist atmosphere, by a blow upon the ear, or any violent jarring of the body, as in riding over a rough road.

The plug, when loosened, presently presents itself against the drum-head, when there is immediately developed a most unbearable tinnitus, accompanied by pain and sometimes vertigo. The patient is almost distracted by the confusion of sound resulting, and most likely for the first time experiences deafness. If the plug is of the dried variety its hardness may soon do great injury to the drum-head upon which it presses. In a certain proportion of these cases, where the plug is loosened, a well-marked impaction does not occur, but tinnitus, etc., will last for a short time, when there will be a period of rest experienced. Finally, however, the drum-head and meatus become so intolerant of the irritation, that the distress can be no longer borne.

The sudden displacement of the plug is frequently accompanied by a loud report, described by the patient as resembling the discharge of a pistol, etc. This sensation is probably owing to the concussion from the sudden entrance of air forcing the drum-head inward—the space between the plug and membrane having previously been occupied by rarified air—or by the impact of the plug upon the membrane. Or, in the event of the accumulation having formed upon the drum-head, its sudden separation would be accompanied by a "crack."

The presence of the accumulation often inflames the integument and periosteum to such a degree that the movements of the lower jaw are much limited from the pain experienced in the glenoid fossa. Such a condition is sometimes the first intimation we have of the existence of accumulations. Inflammations of the middle ear, from colds, etc., may arise during the presence of plugs, and they may thus be brought to notice.

An unpleasant sensation in the ear has induced patients to seek relief by pouring some medicament into the meatus, such as olive oil, spirits of camphor, chloroform, ladanum, gin and other liquors, and when an accumulation has been present these efforts at relief have caused impaction to take place.

I have seldom observed impaction in children, and they do not often complain of tinnitus. Accumulations are therefore not apt to be observed unless the patient is examined for some inflammatory condition attended with earache or deafness.

The latter symptom—deafness—is usually disregarded both by parents and teachers until it becomes very marked.

Here let me say that it should be an invariable rule to examine the ears of children who have recently had scarlet fever, measles, diphtheria, whooping cough, or severe colds.

*Accumulations are most frequently bilateral*, and in every instance, both ears should be examined.

*Deafness is not usually present in these cases, although the accumulations completely close the canal.*

Sound, in these instances, is conducted through the solid plug as well, or better, than through the air whose place it has usurped. I have observed cases of this kind where there seemed to be a hyperæsthesia of the auditory nerve. One case is worthy of mention here: A brakeman employed upon a railway freight-train had both ears *completely* closed by hard accumulations. Examination by voice and watch resulted in demonstrating *better* hearing than usual. He informed me that he could hear the engine's signals, when he was at the rear of a long train of cars, better than any person in the same position. The removal of the accumulations was not followed by any improvement in hearing.

I am in doubt as to whether the collection touches the drum-head in these cases or not; we have the statement of Toynebee, however, that the collection, when removed, sometimes has a cast of the membrane upon it.

We are quite sure, however, that when impaction takes place, the normal vibrations of the membrane are interfered with, and that the pronounced tinnitus is sufficient to occasion deafness.

*Treatment.*—All the collections alluded to should be removed as soon as possible. The surgeon should be provided with suitable instruments for this purpose, as the want of them may render all efforts unavailing, and the patient may be left in a worse condition than he was before.

I believe that in the greater number of cases the general practitioner will find the syringe the best instrument for his purpose, using forceps and curette with caution, when the syringe is not sufficient. The best syringe I know of, is made of brass, which can be plated with nickel, holding sixty cubic centimetres of water. It is fitted with rings for holding in one hand, although both hands are to be used in charging it. The nozzle is made of vulcanite six centimetres in length, with a calibre at its outlet of two millimetres. It is attached to the barrel by means of a bayonet fastening. The syringe, when filled, is held in the right hand, while the operator pulls the auricle upward, backward, and outward with the left hand, thus freely exposing the opening of the meatus. The water etc., escaping, is caught in a cup held by the adult patient himself, while sitting in a chair.

In no instance is it permissible for the operator to proceed until he has made a careful examination of the well illuminated ear.



The water used is to be as warm as can be borne by the patient. If the accumulation is very hard, and completely fills the meatus, the stream of water should be directed with decided force against one edge of the plug, preferably the upper side. Usually a few syringefuls are sufficient to dislodge the mass and somewhat soften it—sometimes bringing it away. If it remains in the canal it can be seized with Politzer's dressing forceps and removed. Should a continuance of the syringing be determined necessary frequent inspection should be made with a speculum as the operation proceeds.

The soft or scaly collections require more gentle syringing.

The pasty mass described by Blake is removed with difficulty. A strong solution of potash is to be carried into its substance from time to time and as it is softened, portions are to be seized by forceps and removed. A syringeful of hot water, thrown in occasionally, is of some assistance in bringing away detritus. It is best to remove the entire mass at one sitting, proceeding with great caution when near the drum-head. Its tenacity is such as to try the patience of the most skilful.

After any syringing there will usually be seen lying upon the meatus walls small particles of loosened epidermis. They must be cautiously picked out with forceps under illumination, using care not to forcibly detach any of them.

In any case where portions of cerumen or epidermis are not detached with slight force, it is best to leave them, perhaps carrying down to their place of attachment a little glycerine or olive oil to facilitate their removal when next an attempt is made. But with the best of care there will at times be left denudations.

Sometimes these denudations are extensive, leaving bleeding patches upon the walls of the meatus, and we may have in such cases subsequent diffuse or funicular inflammation in the meatus.

I have in some instances found the collection of cerumen only a few millimetres in thickness, and have easily removed it with the dressing forceps, although the canal seemed obstructed by a dense black mass. With Dr. Buck's wire curette, a safe exploration can be made if the operator has suitable facilities for illumination, and proceeds with care, and the accumulation in many instances will be more safely removed with this instrument than by syringing.

The membrane, after the operation of syringing, has a macerated and injected appearance which, however, rapidly disappears.

After we are through syringing, the meatus is to be dried by passing in a small portion of absorbent cotton wool wound upon the end of a vulcanite carrier or held in the grasp of the dressing forceps. A firm pledget of wool should be left in the meatus until the patient is next seen. Where co-existent chronic catarrh, or other diseases of the middle ear, has induced deafness, the removal of accumulations will not, of course, restore hearing.

*Coughing and dizziness* are phenomena of common occurrence while syringing proceeds, but they quickly pass away, and are not alarming symptoms.

A *return of accumulations* is of frequent occurrence, depending, of course, upon the cause.

A considerable accumulation of soft cerumen often takes place in a few weeks.

In twelve or eighteen months a considerable plug may confidently be anticipated in many individuals.

As regards the treatment in detail, of the causes of these accumulations, it will be more appropriate to consider it in another connection, inasmuch as these

causes are mostly the same as also induce affections of that more important part of the ear, namely: the conducting apparatus.

#### CONCLUSIONS.

Accumulations in the external auditory canal are of very frequent occurrence.

They are found in all ages, from one year and a half to the latest period of existence.

They are caused by any condition of the system which increases the heart's action and produces subsequent hyperemia of the ear.

Increased cerebral circulation, induced by mental action or the use of alcoholic beverages, is a cause.

Affections of the mouth and pharynx, including dentition and the decay of teeth, likewise produce hyperemia of the ear through sympathetic nerve connection. Inflammatory diseases of the middle ear and external meatus are also frequent causes. In the majority of the instances mentioned the accumulation takes place from the heightened nutrition of the parts concerned—increased secretion being the principal result.

*These collections do not produce deafness*, unless impacted, as sound is seemingly conducted through the solid plug in most instances as well as through the air which normally occupies the canal.

Frequent inspection should be made of the ears of children, as, after the exanthemata, colds, etc., they are extremely liable to accumulations. During the first and second dentitions children are especially liable to sympathetic hyperemia of the ears, and indeed earache thus induced may easily be mistaken for the pain of dentition.

All accumulations should be removed without delay. Syringing with a suitable instrument is found to be the best means for the removal of these accumulations generally, but in cautious hands the curette and forceps will be found of great service.

When attempts at removal are made without suitable instruments and good illumination the patient is likely to suffer greatly before relief is secured.

It is important not to regard these collections as of local interest only, but the remote causes should be sought for and treatment directed to them.

In this way we may hope in many instances to prevent a return of accumulations, and thus ward off one of the serious causes of injury to the more important structures known as the conducting apparatus.

#### CLASS-ROOM LESSONS ON SYPHILIS,

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

[For THE MEDICAL RECORD.]

#### II.

##### TRANSFERENCE OF SYPHILIS BY CONTAGION.

GENTLEMEN:—I will next direct your attention to the *transference of syphilis by contagion*.

Recent investigations in regard to the disease germs of contagious diseases, warrant the assumption of Dr. Lionel Beale ("Disease Germs, their Nature and Origin," London, 1872, page 143, 21 seq.) that they are degraded cells (bioplasts), originally derived from the healthy elements of the human organism. Having lost, by degradation, the capacity for development into useful tissue, they still retain the power of amœboid

movement, proliferation, and vital sustenance. This view affords a starting-point for the rational explanation of syphilitic disease, which, so far as known, is confined to the human *germinal* elements. It is distinctly appreciable only in the lymphatic organs and channels, and in lesions which can be directly traced to disturbances of structure or function in the lymphatic system.

In complete accord with all that is known in regard to syphilis, we may assume, that contact of normal germinal cells (white blood-corpuses), with those which have been degraded through the syphilitic influence, brings about a similar degradation in them; and these again, in the same way, acquire the power to degrade other normal germinal cells with which they may be brought into contact, whether in the same or in another person.

Thus the syphilitic influence, at the point of original inoculation, in varying intensity, is transferred from cell to cell, until its vitiating power is lost, by attenuation, or dilution, or until the entire organism is profoundly affected. Thus it is that we shall meet with syphilis, in varying degrees of severity: from that where the subject passes through it with scarcely a single characteristic manifestation, to one, who, in its various periods, will present a classical picture of every phase of the disease.

Germinal cells from one source or organism, cannot come in contact with those of an independent organism, without a breach of tissue.

Experiments by inoculation of syphilitic blood, and of the unmixed secretions of unirritated syphilitic lesions, have demonstrated the complete absence of any erosive property in the so-called *virus* of syphilis. In the wounds of such inoculations, healing was as rapid, and perfect, as in similar wounds where no inoculation had been made. All the secretions of syphilitic lesions, and of the blood, during the active stage of syphilis (usually from one to two years), contain degraded germinal cells or disease germs, and are thus capable of communicating syphilis.

The modes of transference of syphilis, from the diseased to the healthy, are three:—

1st. By DIRECT CONTACT of the diseased surface with an abrasion, or other breach of tissue, on a healthy person.

2d. By MEDIATE CONTAGION.

3d. By HEREDITARY TRANSMISSION.

Communication of syphilis by DIRECT CONTACT (as under the circumstances peculiar to the venereal act), is the most frequent mode of the acquirement of syphilis. In the female, initial lesions, from this source, are most common in the vicinity of the *ostium vaginæ*; especially so in the folds of mucous membrane about the *fourchette*; between the greater and lesser *labiæ*; under the sheath of the *clitoris*; upon, and even within, the *meatus urinarius*. They are also found to occur, not unfrequently, about the *anus*. They are rarely found on the *os uteri*, and still more rarely on the *vaginal ring*.

In the male, the most frequent sites are upon the *glans penis* and *prepuce*; occurring with especial frequency in the *sulci* by the side of the *frenum*; at the *meatus urinarius*, and in the *fossa glandis*, and occasionally on the integument of the *penis*.

In both sexes the initial lesion is sometimes found upon either *lip*, in the angles of the *mouth*, or even within it, and also near, or within, the *anus*; all as a result of direct contagion. Communication of syphilis, by direct contact, through the act of *kissing*, is an accident of occasional occurrence. In this case, the inoculating secretion may be furnished, either by

an *initial lesion*, or, by one of the common manifestations of active syphilis, known as the *mucous patch*.

Initial lesions are also found in various other localities, as solutions of continuity, at *any point*, may become the accidental recipients of the syphilitic *contagium*. Usually they are rare in proportion to their distance from the genitalia. Surgeons, accoucheurs, and gynecologists, are especially exposed to the peril of an innocent inoculation of syphilis, by direct contact. Within the circle of my city acquaintance, at the present time, are three medical gentlemen who acquired syphilis through an initial lesion on the right forefinger. In another case, a surgeon, also an acquaintance, received the syphilitic inoculation in the end of his right forefinger, through accidental puncture, by a speculum of bone, while amputating the leg of a syphilitic subject.

#### INOCULATION OF SYPHILIS THROUGH MEDIATE CONTAGION.

Cells diseased by the syphilitic influence (or what is usually termed the syphilitic *virus*), may cling to substances with which they are brought into contact. All degraded animal cells, or disease germs, have the power of maintaining their vitality, for some time after removal from the organism in which they have been developed (Beale). Any material, therefore, which has been in contact with the secretions of syphilitic lesions, or the blood of a syphilitic, during the active stage of syphilis, may prove the medium of communication of syphilis to a healthy person, provided only, that the substance so contaminated, is brought into contact with a *lesion*, however slight, of the skin or mucous membrane.

The most common source of the *contagium*, in cases of MEDIATE CONTAGION, is the *mucous patch*, a constitutional syphilitic lesion, frequent upon the mucous membrane of the lips, mouth, and facial region, in persons passing through the active stages of syphilis. The *saliva* is thus impregnated with the syphilitic disease germs, and, through it, a variety of domestic utensils, have been the known media of syphilitic inoculation, by contact with abrasions upon the lips of healthy persons, without regard to age or sex. In the same way, pipes passed from syphilitic mouths, cigars from syphilitic cigar-makers; canes, pencils, and even sticks of candy, contaminated by syphilitic saliva, have effected a syphilitic inoculation. Within the last eighteen months, I have met with four cases, where there was undoubted proof of the acquirement of syphilis through mediate contagion. One, of a young lady, with the initial lesion on the lower lip, acquired from her lover's kiss. The second, a physician, with the initial lesion just within the angle (on the right side) of the mouth, from a syphilitic friend's pipe. The third, in the same locality, appearing characteristically, about three weeks after a morning spent in a dentist's chair. The fourth, a worthy merchant, with his initial lesion (well marked) on his lower lip, with mucous patches in his mouth, and an accompanying syphilitic iritis. In this latter case, the only clue to the mode of acquirement of syphilis, was the habit of passing among numerous clerks, and, occasionally, transferring a lead pencil from their desks to his mouth.

Well-marked constitutional syphilis, with complete absence of any genital lesion, was present in each case cited.

The foregoing typical cases, illustrative of the modes through which syphilis may be contracted by *mediate contagion* (with the exception of the last), were seen in consultation with physicians from neighboring



States. Such accidents, however, are of more likely occurrence in great cities, where moral restraint is least stringent, and opportunity for acquiring venereal diseases most favorable. It becomes necessary, therefore, in connection with cases of obscure disease, simulating syphilis, to make a searching scrutiny of all incidents, conditions, and exposures, which may, in the light of possible accidents, point to opportunity of syphilitic infection, through mediate contagion. The third case cited is of especial value, as conveying a lesson on the necessity of scrupulous care of instruments, used in operations about the mouth.

So simple a procedure as the depression of a patient's tongue with a spatula, in examinations of the mouth and throat, may easily become the means of carrying the syphilitic disease germ, to an abraded surface in a healthy person.

In all cases, therefore, where the same instruments are in use for different persons, after thorough cleansings, their passage *through the flame of an alcohol lamp* should be systematically practised after every operation. The same procedure is equally indicated in regard to instruments used upon other mucous membranes, as those lining the urethra, the bladder, the rectum, the eye. It is also essential, in all instruments used in cutting operations at any point. Not the least important among the modes of conveying syphilis, by mediate contagion, is that by *vaccination*. Numerous well authenticated cases of this disaster may be found recorded in any modern systematic work on syphilis. Inoculation of syphilis by vaccination may be effected either by an impure virus, or an unclean knife. Use of the bovine virus, by means of a clean instrument, relieves this beneficent operation from the stigma of being considered a possible means of communicating syphilis.

## Reports of Hospitals.

### EPILEPTIC AND PARALYTIC HOSPITAL, BLACKWELL'S ISLAND, N. Y.

#### A CASE OF ATHETOID SPASM.

SERVICE OF DR. ALLAN McLANE HAMILTON.

[Reported by DR. BENJ. J. BALDWIN, House Physician.]

THE striking resemblance, in the case I am to cite, to that condition but latterly known, and described by Hammond, Clay, Shaw, Gowers and others as athetosis, convinces me that it is an instance of the same rare affection. Though differing, in some respects, from the few cases reported, the general characteristics will certify to their similarity. The case has been often seen by Dr. A. McLane Hamilton, the visiting physician, who has manifested deep interest in it, and, after repeatedly careful examinations, in which the differential points were fully considered, he expressed his opinion in favor of the affection being a disease *per se*, separate and distinct from other neuropathic maladies, for the reason that no history of primary paralytic affection could be ascertained, and that the disease existed in a *well-nourished* boy.

Joseph D., aged 13, admitted into the hospital in the latter part of the month of January. Is a well-nourished, finely developed boy, with a clear, bright intellect, and good memory. His father and mother are living, and enjoying good health. No history of epilepsy; no evidence of paralysis. Six years ago, the father states that the boy complained of pains in

the toes which gradually moved up the leg, also of some headache and a feeling of numbness on that side. At the same time the use of the limb became impaired, and his gait awkward. Very shortly similar symptoms were developed in the hand and forearm on the same side. Soon these movements both of the hand and foot began, which have continued, uninterruptedly, for six years, increasing in violence very gradually. At present, the movements, to the peculiarity of which we would call especial attention, are very striking, and particularly suggestive of the symptoms of the disease under consideration. These motions are most markedly observed in the fingers, and I would describe them as complicated involuntary contractions and relaxations, which occur very slowly, and, seemingly, with marked deliberation, not being inflamed by emotional, or physical persuasion. The distinct features of these contractions are easily differentiated from those of chorea. Under concentrated efforts of the will he can control the hand for a few moments, but only when such efforts are made with strong determination.

I succeeded in completely quieting the hand, by the application of a cord drawn tightly around the wrist; but this method could, of course, not be tolerated long. The patient's plan of procuring relief was to grasp the wrist with the unaffected hand, but this, though quieting the fingers to a certain extent, was less effectual. Usually he sits with his hands in the position alluded to, and when walking would either, by the direction of the other hand, place the affected one in his pantaloons' pocket, or grasp it tightly behind his back. When, by whatever method employed, the movements are arrested, the fingers assume a position very characteristic, and very similar to former descriptions, viz.: the hand is slightly extended, the thumb and index finger are extended to the utmost, amounting to distortion; the middle finger is somewhat flexed, and the ring finger is strongly flexed and adducted, while the little finger is extremely adducted. During the contractions each finger seems to have a time for action, thus, the movements, beginning in the index finger, are imparted successively to its neighbor. The muscles of the arm share in these contractions, but those of the neck and face are unaffected. The foot, though involved to a less degree, "takes on," when the shoe is removed, movements similar to those of the hand. Groups of muscles along the leg sometimes participate. The same actions, both of the hand and foot, *continue during sleep*, while inability to rest is occasionally complained of from pains situated along the affected muscles. Dull headaches, slightly diminished sensibility of the affected parts, with some tremor of tongue, which, however, does not interfere with articulation, are other symptoms. As in all cases I have seen reported, so in this, the *right* is the affected side. Guided by the interest it has awakened, the medical armamentarium, in this case, has been as vast as it has proved ineffectual. All plans and suggestions of treatment, I must admit, have been baffled by the great obstinacy of the disease. I shall not mention all the measures employed, but will cite those which the result of observation has proven the most effectual. Among these the application of the galvanic current along the spine, and to the affected limbs, deserves the most prominent mention; for, after such applications which were given once a day, as strong as could be well borne, the patient has remarked that he felt somewhat relieved, and the contractions for a while seemed less violent. In conjunction with this, one-third of a grain of the extract of physostigma was given three times a day. Whilst

anticipating some permanent relief from this plan of treatment, we were, at last, forced to abandon it, only to adopt something less effectual. Among other remedies were employed: chloral hydrate, bromide and iodide of potassium, strychnia, phosphorus, zinc, etc., from which but little relief was derived.

In conclusion, allow me to recapitulate the important differences which make the case unique. Its interest is founded mainly on the fact that it is the first case reported in a child, all the others having occurred in adults over thirty years of age. When we compare the mental condition of this to that of other cases, we ascertain a point of no less interest; for the intellectual faculties in the former are unusually developed, considering the patient's opportunities, whereas, in the other cases of athetosis, there has been great deterioration of the mind, or the subjects have been either imbeciles or idiots. Again, when we consider the previous condition of the cases above referred to, another distinct feature is established. In all those cases there pre-existed either epilepsy, chorea, or paralysis, while in this there is no evidence of any complication, or previous disease.

April 13, 1878.

## Progress of Medical Science.

FOUR CASES OF SPINAL PARALYSIS OF ADULTS.—Dr. Salomon, of Hamburg, does not believe that spinal paralysis is as rare among adults as has been supposed. He has himself, within two years, met with four cases of the affection, and believes that many of the cases recorded in the literature of spinal diseases as "chronic myelitis," or under some even less precise terms, really belong in this category. Three of the four cases observed by himself developed acutely. They were characterized by more or less complete paralysis of motion, with moderate atrophy, but without pain or other disturbances of sensation. There was, moreover, no impairment of the functions of the bladder or rectum; no fever; no disturbance of the general health; no change in the reflex irritability. The state of the electro-contraction of the muscles was, however, very striking; the reaction of the muscles to direct irritation, or to irritation of the nerves supplying them, by the faradic current, was in general considerably diminished, while the reaction to the galvanic current was normal or even increased. In one of the cases, that of a young soldier, the affection came on after a night of sentinel-duty in the depth of winter, when the ground was deeply covered with snow; in another, that of a young lady, it appeared after a night of dancing at a ball. Two of the patients had suffered from sciatica of the affected leg one and a half years before the paralytic affection set in. In the case of the soldier, both legs were affected; in the two other cases the arm and leg of one side. All three cases recovered completely after the lapse of a few months. The treatment consisted of galvanism, supplemented in one of the cases by sea-air and sea-baths, and in another by iodide of potassium and a course of baths at Rehme.

The fourth case differed in some important particulars from the other three. It was not acute, but, on the contrary, developed so slowly, that the diagnosis was for a time doubtful. It commenced with a weakness in the left ankle, which slowly but progressively increased, and after the lapse of three months a slight

dragging of the leg in walking was noticeable. The atrophy affected the entire leg, but was most marked in the adductors of the thigh; the loss of power affected these adductors and the peronei to a more marked degree than the other muscles. There seemed to be a certain amount of cutaneous hyperæsthesia on both sides. In all other respects the case resembled the foregoing. After eight weeks of treatment the atrophy had slightly diminished, and the faradic reaction of the muscles had improved considerably, the galvanic reaction remaining unaltered; subjectively the patient noticed an improvement in the strength of the limb. About this time he was awakened over night by a peculiar, painful sensation in the left arm, and in the morning found that he could no longer move the arm as well as usual. This weakness progressively increased, and was soon attended by atrophy and the usual electrical symptoms. At the same time the leg-symptoms ceased to improve, remained stationary for a time, and then became gradually worse. A peculiar and rare phenomenon, which has only been mentioned by Benedikt, was noticed soon afterwards in the muscles of the calf and the outer side of the leg-muscles in which the diminution of the faradic reaction was very marked. These muscles contracted energetically when a strong induced current was passed through them, but, although the current was kept up at the same strength, a sudden and apparently complete relaxation soon set in; on breaking the current, however, a further relaxation took place, which proved that a slight remnant of contraction had still persisted. Benedikt only met with this phenomenon in connection with tumors of the brain and other cerebral affections, but the author has also met with it in connection with nervous diseases of unquestionably peripheral origin. In the case under consideration the condition gradually became worse; the atrophy and paralysis of the left side increased and finally disturbances of speech set in, symptoms which indicate an advance of the morbid process upwards, and make the prognosis unfavorable.

Dr. Salomon believes that the similarity of the symptoms in the above and other recorded cases, with those of the spinal paralysis of children, makes it necessary to admit the existence of the same anatomical substratum for the two forms of spinal disease. It is an admitted fact that the lesions are to be sought in the anterior horns of the gray matter, but the autopsies of children have proven that they may vary greatly in nature, since sometimes the signs of atrophy, and sometimes those of inflammation predominate. He claims that similar differences may also exist in the case of adults. With respect to his own four cases, the entire absence of all inflammatory symptoms leads him to the conclusion that the primary process was one of atrophy.—*Berliner klin. Wochenschrift*, 1877, No. 39.

DR. ANGLADA, Professor of Internal Medicine in the *Faculté de Médecine* of Montpellier, died in April, last year, after a long and painful illness. He was 69 years of age. Over four hundred pupils accompanied the funeral cortege, and in compliance with an ancient custom, the last pupil who had received the degree of Doctor, marched in front of the coffin, clad in a black robe and bearing an open copy of the works of Hippocrates, which was veiled with crape. After the services in the church, the body was carried in procession to the *Faculté* and around the hall of the *Pas-Perdus*, a ceremony which is consecrated by ancient traditions.



# THE MEDICAL RECORD:

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## ABUSE OF MEDICAL CHARITIES AND THE STATE BOARD OF CHARITIES.

ANOTHER opportunity is offered for discussing the abuses of medical charities, by the report upon the subject by a committee of the State Board of Charities. It would appear that the medical profession is not alone interested in checking the growth of the evils connected with our dispensary system, but that distinguished laymen are taking the matter in hand, and working in the direction of reform with an earnestness of intention and sincerity of purpose that are worthy of the cause. So far, then, the discussion of the topic by the medical press has been productive of some practical results, and all those who have become disheartened as to ultimate success may now take courage and continue in their good work.

But we shall probably be getting ahead of our story by not introducing at this place, and somewhat in detail, the special subject of our remarks. It will be necessary to state, in the way of a history of the movement of which the present report\* is the expression, that the Commissioners of the State Board of Charities of New York, as a result of discussion upon the abuses of medical charities before a recent meeting of the American Social Science Association, appointed a committee of five to look into the matter. In the prosecution of its labors this committee thought it advisable to secure in its favor the co-operation of the representatives of the leading medical charities of the city, and ask for the free expression of individual views in connection with direct answers to certain leading questions.

It will, perhaps, the better serve our present purpose of presenting the subject in its entirety, to sum-

marize these questions and their answers in their order. The first had reference to the desirability of general dispensaries confining their operations strictly to their respective geographical limits. The answers were all in the affirmative, as might have been anticipated.

The second question was to the following effect: "Is it, in your opinion, expedient, with a view to restrict the benefits of your institution to the really necessitous poor, that inquiries should be made of each applicant as to his or her pecuniary ability and special circumstances at the time aid is asked for?" There was a general concurrence of opinion that complete information should be obtained from each applicant concerning the point at issue.

In regard to the question as to "what should be the minimum income of the applicants as modified by the number in family, and other special circumstances," to deprive them of the benefits of medical charity, the answers were not by any means committal. The different experiences of the dispensaries depended so much upon the particular classes that called for assistance, that no rule could be laid down. There was, in the main, such a wide latitude for discretionary power, that, with the exception of the New York and Eastern Dispensaries, no direct answers were offered. The former dispensary believed that a good test for the income would be the amount of rent paid, and that when the latter exceeded ten dollars per month for one person, dispensary assistance ought to be refused. The Eastern Dispensary limited assistance to those below the following estimates: "Man and wife, \$400 yearly, increased for each child of twelve years \$100, with discretionary power to house physician."

The employment of a registrar for each dispensary, whose duty it should be to record and examine applications, was not considered necessary, it being unanimously voted that such duties belonged either to the house physician or examining physician.

The next questions, although divided in two, can be comprised in one, and they were practically so answered. We may state the question in effect as follows: "What course could be recommended towards those denied aid, not open to abuse, by which the names and addresses of good druggists and of doctors residing near such applicants, and willing to treat such cases for a small fee, may be communicated to them?" The answers were so far from being encouraging that they left "no alternative between refusing aid altogether, on the ground of the applicant's ability to pay, or admitting to the full benefits of the institution." Although on general principles this may be an orthodox method of disposing of the question, still we can conceive that house physicians, as individuals, are perfectly competent to use wide discretionary powers. There is really no objection to their giving the names of good medical men in the neighborhood of the patient, who are willing to take small fees. This privilege need not be abused, and

\* First report of the Committee of the State Board of Charities on the abuses of medical charities, comprising the answers received from the general dispensaries of New York. Joseph W. Patterson, C. R. Agnew, Henry E. Fellow, Edward Oothout, and John Sherwood, Committee.

will not be abused by honorable men. If a patient applying to a dispensary is able to pay for advice and treatment, he should be directed to some worthy young struggler, and not be allowed to drift into the hands of some quack or counter-prescriber, as would otherwise probably be the case. This money for advice and treatment legitimately belongs to the profession, and should be directed in the proper channel.

Passing over the desirability of reporting the unsanitary condition of houses visited, which receives a hearty endorsement from all the dispensaries, we approach the last question, which is perhaps the most important of all, and which refers to the power and desirability of making a charge to applicants for relief. The New York Dispensary, on the reasonable plea that the charity, as such, is for the "very poor" only, have for the past two years adopted the plan of charging ten cents for each prescription in syphilitic cases, and lately this practice has extended itself to all patients treated. This latter plan, inaugurated three years ago by the North-Eastern Dispensary, and found to work so successfully, has now extended itself to all the other institutions save one.

To sum up, the committee think it well to make the following recommendations:

1. That no necessity exists for more general dispensaries in districts already occupied.
2. That a close attention to the rule of geographical limits is most necessary.
3. That only necessitous poor should receive treatment in the dispensaries, and that those who can pay something would benefit themselves as well as the institution by being required to pay a small sum, on the basis either of attendance or of medicine.
4. That, in general, the means of applicants can more easily be determined by the amount of rent or board paid than by any other method; but that care should be taken to exclude no one from the benefits of the institution through inability to pay.
5. That it is desirable to establish a uniform definition as to the value of the word dispensary patient.
6. That it is desirable that the several dispensaries should, so far as is practicable, act in harmony in respect to the subjects here discussed, and that by occasional conferences, for which provision has been made originally by most of the dispensaries, many of the minor abuses to which medical charities are peculiarly exposed would be most conveniently remedied.

Reviewing the report in a general way, although with the exception of establishing an entrance fee for such patients as can pay a small sum, no important step has been taken. Substantial progress has been made, however, in the direction of a better understanding among the different leading dispensaries in the city. There is evidently a disposition to act in harmony in respect to the subjects discussed, and a promise that many of the abuses referable to any lax management of the institutions will be duly corrected. The com-

mittee, around which all the good influences of concerted action must centre, has certainly made a good beginning, and through its reporter, Mr. John Sherwood, deserves the thanks and encouragement of the profession.

## Reviews and Notices of Books.

EXPERIMENTAL AND CLINICAL STUDIES ON CEREBRAL TRAUMATISMS. By H. DURET. Bureau of the Progrès Médical, Paris, pp. 369, 8vo.

The first chapter of this work is devoted to the consideration of cerebro-spinal shock, and may be briefly summed up as follows: when a blow is struck upon the head, a wave of cerebro-spinal fluid is formed around the hemispheres and in the ventricles, distributing the violence received at one point to all parts of the central nervous system, and more especially to the medulla. The force of this wave is exercised most markedly in the arachnoid sacs at the base of the brain around the medulla, and especially on the floor of the fourth ventricle and upon the restiform bodies.

At the moment of injury, an excess of tension is suddenly produced around the blood-vessels in the lymphatic sheaths; hence results a temporary anæmia of the nervous centres in their totality. This anæmia is augmented by reflex vascular spasm caused by irritation of the restiform bodies and of all the sensory parts of the mesencephale. To this contraction succeeds an equally diffused vascular paralysis; the latter condition sometimes lasts to the stage of inflammatory reaction.

In the succeeding chapter, the author enters into an elaborate discussion of the mechanism of cerebral compression. As a result of his researches he formulates the following doctrine: Every foreign body introduced into the cranial cavity acts not alone on the subjacent parts (local action) but, if the diminution in cranial capacity is sufficient, or, in other words, if the pressure increases to a certain extent (8-15 cms. of mercury), it has also a general effect upon the cerebral centres. These general effects are caused, as in shock from injury, by a distribution of the excess of tension to all parts of the brain, producing contraction of the blood-vessels.

The third chapter is an interesting treatise on the rôle of the Dura Mater in Cerebral Injuries. Duret states that the sensory nerves of the dura mater are eminently excitable. Irritation of these nerves is responded to, 1st, by pain, hyperæsthesia, neuralgia, and reflecto-motor phenomena; 2d, by reflex spasm in the muscles of organic life.

In Chapters IV. and V. the author treats of the parts played by the meningeal vessels and by the different parts of the encephalon in cerebral injuries. They are, in great part, a résumé of what is already known on these subjects.

This work is notable for its originality and for the careful and painstaking manner in which the author has carried on his numerous experiments on this subject.

Duret's admirable researches on the circulation of the brain and on cerebral localization have eminently fitted him for the work in hand. The book will amply repay careful study, both by the pathologist and by the student of nervous diseases.



**DISEASES OF THE NASAL CAVITY AND THE VAULT OF THE PHARYNX.** Translated from the German of Dr. CARL MICHEL, of Cologne, on the Rhine, Specialist in Laryngo- and Rhinoscopic Surgery, with an Introduction by E. L. STURLEY, M.D., and C. C. JEMANS, M.D., of Detroit, Michigan. First American edition. Detroit, Michigan: C. Jung, 1877. Pp. 109.

THE author of this work declares in his preface that he has made "a number of new discoveries, regarding the knowledge and treatment of diseases in the nasal cavity and pharyngeal vault," and, with laudable zeal, desires to make these known to the medical profession. After mentioning in his introduction, in a most cursory and somewhat slighting way, the names of Voltolini, Schroetter, and Zaufal, he modestly assumes that no one has ever described the nasal diseases so thoroughly as he has endeavored to do in this book; "nor has there ever before been such observation on living subjects, and such results reached thereby, as I have described in the chapters on Chronic Catarrh, Ozæna, Syphilis in the Nasal Cavity." Of course, after reading an assertion so positive, one is for a moment bewildered, but afterwards can but recall the names of Follin and Duplay, who have devoted in their "*Traité de pathologie externe*," Paris, 1870, just 142 pages to these affections; of Spencer Watson, whose treatise on "Diseases of the Nose," London, 1875, numbers 472 pages; of Cohen, "Diseases of the Throat," New York, 1872, where we find 81 pages on this subject. It is really too bad that an author, whose merit is so well accentuated in his own eyes, should be willing to ignore absolutely other good and zealous workers in the same field. In the treatment of chronic catarrh our author, after affirming that "in most cases the mucous membrane of the nasal cavity is only diseased in spots"—which bye the bye, is not correct—proceeds to laud the use of the galvano-cautery, and states that since he has become familiar with it he has "found it a remedy by which every chronic catarrh can be surely and entirely cured in a few operations" (p. 26).

Surely, then, American practitioners have no need to search further, as the true and sole remedy for a most obstinate affection is now made known to them. The treatment of ozæna by means of "Englische Spritze," is eulogized fully, and the author claims that he has "merited a feeling of gratitude from many a patient by my method of controlling a disease."

No mention is anywhere made in this chapter of Rougé of Lausanne, whose operation for the cure of ozæna certainly deserves a better fate. In chapter V. we find "Syphilis in the Nasal Cavity" treated in six pages, and six histories recorded. These pages and these histories contain nothing new, and iodide of potash internally, and cauterizations with nitrate of silver, are the remedies employed.

To be just, there are many points in this work, especially in regard to the use of the galvano-cautery, which deserve to be remembered, but throughout its pages there breathes such intense egotism, and there is so great apparent ignorance of other men's doings (English, French, and American), that we lay it aside with more of pleasure than regret.

**HANDBOOK OF OPHTHALMOLOGY.** By Prof. C. SCHWEIGGER, of the University of Berlin. Translated from the third German edition by PORTER FARLEY, M.D., Rochester, N. Y. Philadelphia: J. B. Lippincott & Co. 1878.

IN spite of the many text-books on ophthalmology, of which a goodly number are in the English language, we have here still another in the translation

of the third edition of Professor Schweigger's manual. The work in the original German has proved an acceptable one from the appearance of the first edition, and this translation will undoubtedly be a very useful book to the large number of practitioners who cannot read German. The work is divided into three parts, and makes a handsome volume of 550 pages.

Part First treats of the anomalies of refraction and accommodation, monocular diplopia and polyopia, spectacles, the ophthalmoscope and ophthalmoscopic optometry, and diseases of the ocular muscles, including squint. It occupies about one-third of the book, and is in general a very practical and satisfactory discussion of the subject. That part which relates to the size of the ophthalmoscopic image is clear and sufficiently full; but the subject of the ophthalmoscope is discussed in a very meagre and incomplete manner. The author makes no mention of Loring's ophthalmoscope, which in itself is a very marked omission. His citation of authorities is very incomplete all through the book, and his failure to make even a single mention of work in the department of ophthalmology done on this side of the Atlantic displays either singular ignorance or something still more to be deprecated. His consideration of the subject of muscular asthenopia and dynamic strabismus is exceedingly good, but in speaking of the advancement or bringing forward the insertion of an ocular muscle, he makes no mention of Agnew's operation. This is the more marked because in describing a method which, he says, "combines all the good points of the various operations," he speaks of the insertion of the sutures in the muscle before detaching it from the sclera, as "greatly facilitating the operation," a step which is especially enforced in Agnew's method.

Part Second treats of diseases of the orbit, lachrymal apparatus, eyelids, conjunctiva, cornea, sclera, iris, lens, and vitreous body. In discussing orbital tumors, the author is inclined to value too highly the removal of the periosteum of the orbit in cases of adherent malignant growth. In our experience this has not proved of much success in preventing the return of the growth, and is moreover a serious operation.

Professor Schweigger considers acute inflammation of the lachrymal gland as not very uncommon, but on this point we differ with him. He recommends that great care be exercised in probing the nasal duct, which we regard as most excellent advice.

In the treatment of chalazion of the lids, he recommends eversion of the lid, and splitting the tumor upon the conjunctival surface in a direction perpendicular to the edge of the lid, which may leave an irritating scar. A better plan is to split the lid vertically, but at the same time parallel to its cartilage, entering the knife in the ciliary margin just in front of the cartilage. The contents of the chalazion can be evacuated with ease, and though the operation is painful, it leaves no irritating scar.

The author, in speaking of pterygium, says that its development very seldom interferes with vision, by advancing far enough upon the cornea to obstruct the area of the pupil. This, however, we regard as a mistake, and consider such an accident as by no means uncommon.

In the chapter on irido-choroiditis, we think that the statement, "Increased hardness indicates optic-nerve excavation," is somewhat dogmatic, and hence should be accepted with some reservation.

Part Third treats of diseases of the choroid, retina, and optic nerve, glaucoma, and amblyopia, with a separate chapter upon the ophthalmoscopic picture of the normal fundus or background of the eye.

There are but few illustrations in the work, and the absence of any detailed anatomy of the eye and its appendages must be regarded as a blemish, if the work is to be considered a complete treatise.

The work of the translator has been well done. There is an occasional awkwardness of expression, or the use of one word in place of another, which custom may have rendered technical. Thus, "circles of diffusion" is used where "circles of dispersion" would be better. Again, on page 204, "more seldom" should be "more rare," and on page 386 and elsewhere, "punctate" is better than "punctated." On page 426, "spindle-shaped form" is tautological. Finally, there is a good index.

The publishers' work, with the exception of one or two illustrations, has been well done, and the book may be recommended as of value to the student and general practitioner.

**INJURIES OF THE EYE AND THEIR MEDICO-LEGAL ASPECT.** By FERDINAND VON ARLT, M.D., Professor of Ophthalmology in the University of Vienna. Translated, with the permission of the author, by Charles S. Turnbull, M.D. Philadelphia: Claxton, Remsen & Haffelfinger. 1878.

This little book of not quite two hundred pages, from the pen of the well-known Viennese professor, was first published as a series of articles in the *Wiener medicinische Wochenschrift*, and these papers were subsequently collected and published unchanged in book form, of which latter the volume before us is a translation. The author, as a member of the medico-legal commission of the university, had often remarked that when physicians were called upon to testify in cases of injuries of the eye, they could not answer as experts, owing to their comparative ignorance of the specialty in question. Hence, the object of this work is to impart a knowledge of what is essential to the medico-legal expert in cases of injury to the eye.

He divides the subject into three groups:

- I. Injuries produced by sudden compression or concussion of the eye.
- II. Injuries produced by the entrance of a foreign body not acting chemically.
- III. Scalds and corrosions of the eyeball.

In addition, a fourth chapter is devoted to a consideration of such affections as are either feigned or produced artificially and intentionally.

The reputation of the celebrated author is so widely spread, and his authority, particularly upon this subject, is so high, that a criticism of the subject-matter of this little volume would be a work of supererogation. We can simply agree with the author in his views of the object of the book, and assert, on our own part, that it will form a most valuable basis on which to write a strictly technical and exhaustive monograph on the subject.

The work of translation has, on the whole, been fairly well done, but there are numerous awkward expressions and even faulty translations. The title-page is correct, but upon the outside of the back of the book, where we are accustomed to see the name of a work and the author's name, we read the announcement: "Injuries of the Eye. Turnbull." (!) This may certainly be classed as a sin of commission on the part of the translator, and is, to say the least, gross discourtesy to the distinguished author, who kindly gave him permission to translate the work. On page 32 the word "zonal" should be replaced by "zonular." On page 36 the expression, "resolution of the nidus of accumulation," is very awkward, and too literal a rendering of the German to be easily

understood. On page 42 the term "eye-globe" is certainly not English; it should be "eye," or "eyeball," or "globe." On page 44 the expression, "beyond the lens-system," is too German to be English, and should be "posterior to the lens." On the next page, "commotion of the membrane" should be "concussion of the membrane." On page 51 the words "maculous . . . spots" are tautological. On page 75 the word "reflector" is not English. On page 79 the words, "refusal of the pupil against atropine," should read, "resistance of the pupil to the action of atropine." In several other places the preposition "against" is used in a wrong sense. On page 86 the word "circumvented" is used in a very awkward sense, and is unnecessary. On page 86 the word "remarkably" is used where "markedly" should be employed. On page 113 the expression "pupillary district" is used where "pupillary space" is the usual term employed. On the next page, "dislaceration" is not English, and farther down there is a most awkward, ungrammatical sentence, beginning as follows: "Even if such an eye should not, as it frequently does, be lost by inflammation —" (!!) On page 122 another awkward expression is met with in "to endeavor an exhaustion of the lens," and on the next page the use of the Greek word "encheireses" would not be intelligible unless a person were acquainted with Greek, and in an English work must be regarded as inadmissible.

There are numerous other awkward translations and a few typographical errors, but these will suffice to indicate the lack of care employed in revising the translation for the press.

The paper and type are both good, and this little volume, like all work that comes from the hands of the renowned author, is of value as the result of long experience, great diagnostic skill, and sound judgment.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, May 22, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

FROM CANCER TO SARCOMA.

DR. HEITZMANN presented a tumor of the breast that had been extirpated a few months before by Dr. Mundé. It weighed eight pounds and showed some deep ulcerations, the surfaces of which, however, were perfectly smooth. The diagnosis of sarcoma was made before the operation, and was confirmed by microscopic examination afterwards. On examining the nipple Dr. H. found a well-marked specimen of hard cancer. After a careful study of the case he was convinced that this was an instance of the transformation of cancer into sarcoma, or at least that the disease started as a cancer and terminated as a sarcoma. In answer to a question, he remarked that sarcoma could not be transformed into a cancer, for the reason that the latter was more highly organized than the former.

CHROMIDROSIS—TWO VARIETIES IN THE SAME SUBJECT.

DR. A. H. SMITH presented two specimens of chromidrosis, which were remarkable in that they were produced by the same body and yet different in color. The secretion from the left axilla yielded a dark brown



color, while that of the right axilla was of a bright orange color. The patient was a delicate lady, forty years of age, who had no definite disease, but was simply prostrated at the time, the result of a long journey from the West.

DR. HETZMANN remarked that cases of chromidrosis were frequently presented at Hebra's clinic in Vienna, and he himself had seen quite a number, but he had never met with an instance in which different colors were produced by the same body.

#### TRICUSPID AND MITRAL REGURGITATION.

DR. BEVERLEY ROBINSON exhibited a heart taken from a man who died in his service at Charity Hospital, March 7th. The patient was a very corpulent individual, and presented all the phenomena of general anasarca. There was albumen in the urine, but no casts. He had taken cold a year before, and since that time had suffered from a dry cough, followed during the past three months by dyspnea. On examination of the heart the area of dulness was increased, the apex-beat was an inch and a half to an inch and three-quarters below the nipple and to the left. On auscultation there were evidences of tricuspid regurgitation with a suspicion of mitral regurgitation.

The autopsy, made by Dr. Maxwell, proved the diagnosis to be correct, that is to say, the heart was enlarged (hypertrophous dilatation) with mitral insufficiency. The specimen was not specially interesting, except, perhaps, in connection with a discussion which had recently taken place before the Society in reference to the frequency of association of hypertrophy of the left ventricle with mitral regurgitation. As a matter of fact, here was slight mitral regurgitation with hypertrophy of left ventricle. Another point of interest was one upon which very little stress was laid by authors, and that was the liability of detecting murmurs when they are believed to exist. The case was one in point, where repeated examinations were made before the murmurs could be detected.

DR. A. H. SMITH was in the habit, when he suspected murmurs and was unable at first to find them, to make the patient exercise by walking across the floor.

DR. PETERS was sometimes compelled to make them walk up upstairs before the auscultatory signs were satisfactory.

DR. ROBINSON remarked that he had known of cases in which even these means had failed.

#### SARCOMATOUS TUMOR OF CALF OF LEG—SUBSEQUENT SARCOMA OF THE LUNG AND SPLEEN.

DR. STIMSON presented a specimen in order to complete the history of a case related at the meeting of February 27th. At that time a sarcomatous tumor of the calf of the left leg was presented, which was removed by amputation through the condyles of the knee joint, from a woman aged 37 years. In January, 1876, she had a tumor of similar character removed from the right gluteal region by Prof. A. C. Post. (*See* MEDICAL RECORD, vol. xiii., p. 254.) The stump healed kindly, but coincidentally the chest-symptoms from which she had previously complained began to increase. The pain was more marked than the difficulty of breathing. On examination the right chest was dull on percussion and apparently partially filled with a new growth. In consequence of the increase of growth of the lung, the liver was pushed downward until its lower margin reached the right iliac fossa.

When the body was opened the diaphragm was convex downward and projected three fingers' breadth below the free margin of the ribs. The substance of the

right lung was entirely replaced by the new growth. The spleen was occupied by a globular tumor of a yellowish gray color, smooth, of homogeneous appearance and sharply cut margins. There were no new growths in the liver.

The stump of thigh from the patient was also exhibited, the point of interest being the remains of the carbonized silk ligature, which was nothing but the knot effectually encysted by effused fibrine. The ligature had been applied three months before. There were two neuromata at the extremity of the stump, situated respectively upon the divided edges of the popliteal and sciatic nerves.

#### STRICTURE OF URETHRA—EXTERNAL URETHROTOMY—DEATH.

DR. BRIDGON presented the genitalia removed post-mortem from a man aged 58 years, whom he first saw three months ago in consultation with Dr. Murray. The patient had been confined to his bed the larger portion of fifteen years with rheumatic gout. His wrists were deformed by that disease, and under some portions of the integuments of the hand there were deposits of urates. He had also been the subject of stricture of the urethra for a period of thirty years; at all events, the difficulty in making water dated back to an attack of gonorrhœa which he had at that time. When Dr. B. saw him there were two strictures in the penile portion of the urethra, one three inches down and the other an inch beyond. Neither of these were tight strictures, one admitting a No. 5 and the other a No. 6 sound. There was, however, a tight stricture in the intrapubic portion, which would sometimes admit a No. 3 or No. 4 elastic instrument. On the right side of the stricture was a false passage, which very frequently thwarted the efforts at dilatation. He had atony of the bladder, there being twelve or fourteen ounces of residual urine after he had emptied it himself. The contents of the bladder, after removing the last portions, was composed of pus. The urine was albuminous, but no casts were found, on account of the large amount of pus present. There were also some chest-complications.

Regarding his condition an unfavorable one, Dr. B. advised dilatation, but after persistent efforts for two months nothing was accomplished. A month ago the patient entered the Presbyterian Hospital, and an examination at that time revealed the same condition of things. Catheterism of the bladder was resorted to daily for a week or more after his admission, and with benefit. The urine was always alkaline. At the expiration of ten days a false passage was entered, after which instrumental efforts were discontinued for a week. A consultation having been held at this time, external urethrotomy was advised, and also the division of the penile structure by Maisonneuve's instrument. An unfavorable result was apprehended, and a statement to that effect was made to the patient. He made up his mind, however, to have the operation performed last Wednesday. An attempt was made to enter the bladder by fine filiform whalebone guides. Seven or eight of these went into the pocket. When the pocket was full nothing more could be passed. Finally, the filiform guide of Maisonneuve passed the stricture, but the instrument itself could not be introduced farther than the membranous portion. The perineum was opened upon the director in the usual way, the urethra being slit up as far as the apex of the prostate. The stricture in the penile portion was easily divided along its floor by Maisonneuve's urethrotome. After the operation, the patient persistently vomited until his death. The vomiting was

evidently uræmic, and the means used to allay it were, as usual, useless.

The autopsy was made this afternoon (May 22d). The left lung was found moderately adherent to the chest parietes; the apex in the condition of fibroid degeneration. The right lung was bound down by firm and old adhesions, the apex being also in a condition of fibroid degeneration, besides containing one or two small cavities. The valves of the aorta presented two or three patches of atheroma, but it was otherwise healthy.

In the abdominal cavity there were found recent adhesions over the surface of the spleen, and entirely limited to that organ. The kidneys were in an advanced stage of granular degeneration. There were deposits of urates in some of the tubular structures. The cortex had almost entirely disappeared. There was no dilatation either of the pelvis or the ureters. The coats of the bladder were considerably thickened and corrugated, and the lining membrane was of a slaty color. In the neighborhood of the trigone, there was well-marked ulceration. The floor of the urethra was divided by the Maisonneuve from the meatus to the incision in the perineum, there being a continuous slitting of the mucous membrane from one point to the other. Immediately opposite the bulbous portion of the urethra was found an oblique septum of the mucous membrane, constituting a stricture, in front of which was a pocket about an inch in depth. Behind this stricture was a still deeper pocket, in which the instruments were arrested in attempts at catheterism. The form of the latter stricture was that of a diaphragm. There was also an ano-perineal fistula, through which urine passed at different times.

Dr. HEITZMANN stated that the actual condition of the kidney in this case, that of catarrhal nephritis, and not the abundance of pus, as stated, explained the absence of casts in the urine.

#### INTRAPLEURAL SARCOMA—INTERESTING QUESTIONS OF DIAGNOSIS.

Dr. Polk presented a tumor of the pleura with the following history: It was removed from a gentleman who came to his office last November. Upon questioning him it was found that he had been an invalid for two or three months, and that he had had a cough for six months. He had been able to attend to his business until two months previously, when the difficulty of breathing and loss of strength compelled him to give up and to seek advice. Dr. P. questioned the patient closely in regard to the character of the dyspnea, and received the answer that it occurred only after exertion. The sputum consisted only of the bronchial secretion. There had been no hæmoptysis. The temperature was normal. A physical examination was made of his chest, and the condition of things found was simply this: On inspection the whole of the left side of the chest was bulged out. This was more marked anteriorly than posteriorly. The appearances were those which ordinarily present themselves in cases of pleurisy with a large amount of effusion. There were bulging of the intercostal spaces and a lack of expansile movement. Palpation showed slight fremitus over the upper portion of the chest, over the sides somewhat diminished, and about normal posteriorly. On percussion there was absolute dullness on the entire left side, with the exception of a small triangular space posteriorly, and at the base of the lung, extending up to the lower angle of the scapula and around laterally to the opposite border of the interscapular space. So far as auscultatory signs were concerned, there was simply

pure bronchial breathing of a most intense character, and vesicular respiration over the triangular resonant space. Dullness extended to the right of the sternum, from three-quarters of an inch to an inch from the first intercostal space clear into the hepatic region. The apex-beat of the heart was in the sixth intercostal space. No abnormal sounds could be heard.

The impression first made upon Dr. Polk was that the case was one of encysted pleuritic effusion, and a favorable prognosis was given. On thinking over the case afterwards, it struck him that such a large body of fluid as seemed to exist there would scarcely remain in the upper portion of the lung, that it would force aside the adhesions and destroy the evidence of normal lung-tissue below. This was the point which militated against the idea of simple fluid in the chest. The next point was the nature of the bronchial breathing. It was not the muffled bronchial breathing of compressed lung transmitted through a fluid. Another point: if the lung was attached to the diaphragm posteriorly, it was evidently compressed in that direction. Supposing the bronchial breathing was due to the compression, the loudest breathing should have been posteriorly, but, on the contrary, it was more intense in front.

Another point was that the patient had no elevation in temperature. He was also positive—and being a very intelligent man his impressions were trustworthy—that during his whole illness he never had fever nor increase of perspiration. These facts led Dr. Polk to the conclusion that he had to deal with an intrathoracic tumor. The question might, of course be settled by puncture, but the latter was not considered a prudent measure.

The patient was watched from day to day, but after a while the triangular space became dull and gave bronchial breathing. The entire left side of the chest then presented precisely the signs which are noted in ordinary cases of pleurisy with effusion.

Dr. Loomis saw the patient at this time. He questioned the gentleman and made a physical examination. The conclusion he arrived at bore out fully the opinion to which expression was just given, and was quite a natural one with the facts before him. The diagnosis was pleurisy with effusion. When he was informed of the previous existence of the resonant space posteriorly, he, however, changed his opinion to that of possible intrathoracic tumor.

The history of the case after this was summed up in a gradual sinking of the patient, and finally death on November 5th.

At the autopsy the entire left chest-cavity was filled with a lympho-sarcoma. The heart was found lying midway under the sternum. The tumor extended half an inch to the right of the right margin of the sternum. The left lung was compressed and carnified, and was not much larger or thicker than the extended hand. There were no evidences of tumor in any other portions of the body. Immediately around the compressed lung there was about half a pint of fluid.

A month before the patient died he was aspirated posteriorly an inch below the scapula on the left side, and a pint of bloody serum was obtained. On the withdrawal of the fluid there was a partial return of the respiratory sounds. The starting-point of the tumor seemed to be the pleura. The bronchial glands were in no way implicated.

Dr. Loomis described the physical signs which he obtained on examination. They were identical with those stated by Dr. Polk. Dr. L. stated that when he learned that the disease had commenced from above and had progressed downward, the idea of an



intrathoracic tumor very naturally suggested itself. Under the circumstance of a complete filling of the chest by a tumor he did not think it possible to diagnose such a condition of things from that of simple fluid in the same cavity. The absence of fever in subacute pleurisy was not impossible, and he took issue with Dr. P. on that point. It was true that fever was the rule, but this rule was by no means absolute.

Dr. POLK did not see how it was possible not to discover a change in temperature if examinations were made continuously for five or six days together. He could very easily understand how occasional examinations with the thermometer should lead to negative results.

Dr. Loomis had known of cases of subacute pleurisy in which the temperature had been normal for two weeks, and when examinations were regularly made during that time.

Dr. POST remembered that the late Dr. Swett had given an account to the Medical and Surgical Society of a solid tumor filling the chest, and that Dr. Swett had stated at the time there were no means of distinguishing between solid and fluid contents. Whereupon, on that occasion, Dr. Post had expressed his belief that auscultatory percussion might be able to make such a distinction. Dr. Post asked if any observations had been carried out since that time with a view of determining the point.

Dr. Loomis was of the opinion that auscultatory percussion was unable to make any distinction between solid or fluid chest-contents.

Dr. ROBINSON asked if a distinction in these cases could not be made between solids and fluids in the chest by taking advantage of the fact that when fluid is present the lung being floated up gives a tympanitic resonance under the clavicle.

Dr. POLK stated that such tympanitic resonance under the clavicle was not always present, and instanced a case in point which occurred while he was an interne in Bellevue, and in which there was absolute dullness under the clavicle.

Dr. Loomis remarked that when the pleural cavity was completely distended the lung could not rise above it, but, on the contrary, the lung being held in place, the fluid rose above it and produced the dullness under the clavicle. It was a question how bronchial breathing, in connection with pleuritic effusion, could be explained. Dr. Stokes attempted to explain the phenomena by assuming that the lung, at the point where bronchial respiration was heard, was adherent to the chest-wall, and that the conduction of sound was more direct. In the next case which he examined, however, no such adhesion was found, and he abandoned his theory. In Dr. Polk's case the bronchial breathing was explained by the fact that the bronchial tubes were open.

Dr. POLK stated that it seemed to him that there was some aid in diagnosis between sound transmitted through fluid simply, or through solidified lung and intrapleural growths. The difference was simply this: when there is bronchial breathing from compressed lung, the sound coming through the fluid has a muffled character; and when it comes through consolidated lung-tissue or through a tumor, you get an intensified bronchial sound very much like the blowing through a metallic tube. It seemed to him that the difference was sufficiently marked to make an element in the diagnosis.

Dr. Loomis admitted that when either of these conditions were present by themselves a distinction might be made, but when they coexisted there would be trouble again.

Dr. A. H. SMITH asked if there was not a difference in the bulging of the intercostal spaces in cases of fluid effusion compared with that which might occur from intrapleural growths. Reasoning *a priori*, he would suppose that the bulging would be more marked in cases of fluid effusion.

Dr. POLK did not believe there was any difference between the two.

Dr. Loomis corroborated the statement of Dr. P., and alluded, in connection with it, to the difficulty in diagnosing by mere tension of the abdominal walls between some cases of encysted dropsy and abdominal tumors.

Dr. POLK remarked that in his case the most intense bronchial breathing was in front in the infra-clavicular region and mammary regions. Now, if it were fluid in that sac, the most intense bronchial breathing should have been in the interscapular region and around the scapulae. The contrary, however, was the case.

Dr. HEITZMANN referred to a case which he saw for Dr. Elsberg, during the sickness of the latter, about two years ago. There was dullness all over the anterior parts of the chest, and in regard to auscultatory signs the case was almost precisely similar to that related by Dr. Polk. There was, however, in addition thereto, a paralysis of the left vocal cord due to pressure upon the left inferior laryngeal nerve, and a decided weakness in the pulsation over the arteries of the left arm. The diagnosis of a tumor was accordingly made. He asked, in conclusion, if paralysis of the vocal cords was not a strong element in the diagnosis.

Dr. Loomis remarked if he could find no other explanation for the paralysis in question, he would suspect a tumor.

#### CYLINDROMA OF ANUS AND RECTUM—REMOVAL BY VOLKMANN'S METHOD.

Dr. KEYES presented the anus and three inches of the rectum, which he extirpated for cylindroma, with Dr. Van Buren in consultation. The patient was a female, aged 38 years, who had suffered from the disease for two years. Her mother, aged 70 years, has been a victim to the same character of growth, and in the same locality, for several years. The operation was done antiseptically and in accordance with the rules laid down by Volkmann. The patient being a poor girl in a tenement, and surrounded by many disadvantages, Dr. K. concluded to get rapid union by pressure from within. Having failed in accomplishing this by means of a sponge in the vagina in a previous case—owing to the accumulation of gas in the intestine behind, and the consequent tearing out of the stitches—he resorted to another and more effectual expedient. He employed an instrument devised by Guyon for the purpose of tamponing the bladder after lithotomy. It consisted of an india-rubber bag, which was inflatable with air and air-tight, and through which a stiff catheter passed. In a word, it was constructed after the plan of Trendelenburg's tracheal tampon. This instrument was introduced into the rectum and inflated. It answered the intended purpose admirably, exciting the requisite amount of pressure and at the same time allowing the escape of intestinal gas through the tube. The patient made a speedy recovery without a bad symptom. She was up on the twelfth day, and got perfect union all around between the mucous membrane and the integument.

#### EPITHELIOMA OF THE LIP.

Dr. KEYES also exhibited the lower lip, the seat of epithelioma, removed from a man aged 80 years. The

disease had involved not only the entire thickness of the lip itself, but also the periosteum covering the chin, so that the bone of the latter was laid bare by the operation. Quadrilateral flaps were taken from below, according to Syme's method, but the difficulty presented itself of obtaining support for them. They were made much longer than was at first required, so as to enable them to curl upon themselves at their upper free margin. A button suture, horizontally applied, emerging centrally in each flap, was passed through the mucous membrane left upon the inner side of the alveolar process of the chin. It answered perfectly. Photographs were exhibited showing the condition of the patient before and after the operation. The result was very satisfactory.

#### REMOVAL OF NEEDLE FROM THE HAND.

Dr. KEYES lastly exhibited a fragment of a small sewing-needle which he had removed from the hand of a seamstress. The patient accidentally struck the palm of her hand upon a needle which was stuck upright in a table, the head and half of the shaft of the needle entering the flesh, while the remainder was shattered and lost. A careful examination of a speck which the girl said was the point of entrance, failed to discover anything even by the aid of a watch-glass. The patient being exceedingly importunate, the part was anesthetized with ether spray, a triangular flap made, and a portion of the needle was easily grasped and extracted. She was informed that no more trouble would follow, as it was supposed that all of the needle was removed. Two weeks later, she came with a swelling upon the extensor tendon of the index finger over the centre of the metacarpal bone. This was opened and another portion of the needle extracted, apparently from a cyst which it had created for itself alongside of the tendinous sheath.

The Society then went into Executive Session.

## Correspondence.

### CUMULATIVE ACTION OF DIGITALIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—For a long time the cumulative action of digitalis has been believed to be one of the possible results of its administration, and, at the present time, most physicians are on the alert to observe any evidence of this accumulated influence in all cases in which the drug is employed. Recently, however, there have been those who have expressed unbelief in the possibility of the occurrence of this effect after the use of digitalis, while others pay very little heed to this part of the subject when treating of the administration of the drug.

While we may rightly believe that the cumulative action of digitalis is not frequently met with, I think that the following brief history will demonstrate that this sequence of its administration is liable to occur.

L. Y., aged six years—after an attack of scarlatina occurring in March, 1877—developed albuminuria. As a part of the treatment of this pathological condition, she was ordered to receive  $\mathcal{M}$  iv. of tinct. digitalis, every four hours. At the time this was prescribed her pulse had not fallen below 118. She took the medicine for five days with perfect regularity

(except during the hours of sleep), her pulse ranging between 96 and 110. During this time the renal symptoms were improving.

On the sixth day the pulse was irregular—at 70. Ordered only three doses during the day. On the seventh day, her pulse was 60 and irregular. Discontinued the medicine.

During the next four days (patient taking no medicine) pulse averaged 52, was very irregular, and, at times, was as low as 46.

On the twelfth day, April 4th, the pulse became regular at 56.

From this time no irregularity was observed, the frequency of the pulse gradually becoming normal. I took the trouble to ascertain that the tincture was of the same purity when the prescription was renewed, during its use, as when originally ordered.

EDWARD L. PARTRIDGE, M.D.

13 CHARLTON ST.

### AN EASY METHOD OF REDUCING FEMORAL HERNIA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the afternoon of May 27, 1878, I was called to visit Mr. J. T., a robust young man, aged twenty-five, a laborer, who, on the day previous to my visit, while engaged in heavy lifting, felt, as he said, "something give way in his left side." From that time he suffered pain in the left inguinal region, and in the morning the pain was so severe that he kept the bed, and on discovering a small enlargement in the femoral region sent for me in the afternoon. On my arrival I found the trouble to be a femoral hernia in a strangulated condition. I at once placed him in the position usually occupied for the reduction by taxis. I then made several attempts for its reduction, but failed. My teachers, and all authors on surgery that I know, are very explicit in regard to this *one position* as being the *sine qua non* for success. But, meeting with failure in my attempts, I thought that if I could get the body in a position that would relax the parts and at the same time compel the intestines to gravitate from the opening, by their traction on the protruded portion, it might expedite the replacement. The position devised was this: I placed him on his face, then told him to rest on his forehead and elbows, and with my assistance he raised himself and placed his right foot on an elevation of seven or eight inches above the plane upon which his head rested, and the right side was supported against the ceiling of the room. He began to remonstrate against standing on his head, as he termed the position, but as he had refused to take an anæsthetic, and promised that he would do anything desired rather than submit to anæsthesia, he soon became reconciled to the requirements. I then took his left foot in my right hand and flexed the leg upon the thigh, and that upon the abdomen. With my left hand I kneaded the abdomen a moment, then with the index finger of the left hand I made gentle pressure on the protrusion in the direction of the femoral outlet. The result was all that could be desired. The reduction was almost immediately accomplished as I began pressure. In the above position we get a good relaxation of the parts, and a gravitation of the intestines which we do not get in the usual position. I therefore deem the method worthy of trial by the profession.

F. D. LAMB, M.D.

GREAT BEND, PENN.



## New Instruments.

### DR. JACOB A. WOOD'S CANULA FOR PARACENTESIS ABDOMINIS.

MODIFIED BY R. A. HARRIS, M.D.,

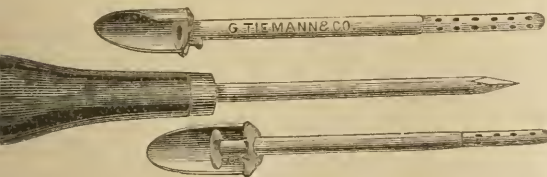
DOVER, N. J.

AN excuse for presenting improvements upon an instrument so recently introduced to the public may be found in the fact that it is one for the operation of paracentesis abdominis, and hence liable to be required at some time, if not frequently, by every physician. I feel quite sure that very many will gladly hail an improvement upon the antique trocar, whereby the stoppage of flow, and the consequent embarrassment, can in a great measure be obviated.

My interest in this improvement does not date to the employment of Dr. Jacob A. Wood's invention; for, while operating with the old or common trocar and canula, I also conceived the idea of an inner metallic tube, and forwarded Messrs. Tiemann & Co. specific directions for making the same, before the history of a similar invention was brought to my notice.\*

To Dr. Wood, however, is due the honor of first thought, for I have since learned that he devised and had constructed the inner canula in 1855, since which time he has employed it in practice. The two devices, acting upon the same principle, were, however, somewhat differently constructed. The inner end of Dr. Wood's tube was open and squarely cut like an ordinary canula, and that portion extending beyond the outer canula, through which it was inserted, was perforated by numerous small holes. The inner extremity of my canula was smooth, oval, and closed, with four long fenestræ, instead of the small perforations for the entrance of the fluid. The long slots or fenestræ allow partial collapse of the intermediate portions of the cylinder, are liable to pinch the viscera when withdrawn, and on this account are objectionable. The oval closed end, however, is desirable, for while the flow is not thereby lessened, it permits free manipulation without producing the uncomfortable irritation so often caused by the open-end canulas.

I have added a stop-button to prevent the inner canula being expelled during the process of tapping.



I have repeatedly, and with great satisfaction, employed the canula of Dr. Wood as modified by myself, and can commend it to the use of others. When operating it is, perhaps best to allow the fluid to escape from the ordinary canula as long as it will do so in full stream, after which employ the inner canula until the operation is complete. Change of posture and manipulation of the instrument often greatly assist the evacuation.

The accompanying wood-cut illustrates the improvements.

\* Vide MEDICAL RECORD, Sept. 1, 1877.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 10, 1878.

| Week Ending        | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. |
|--------------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|
| August 3, 1878...  | 0             | 11             | 40             | 1                          | 5        | 23          | 0          |
| August 10, 1878... | 0             | 18             | 28             | 1                          | 3        | 26          | 0          |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., Aug. 10, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during the past week under the National Quarantine Act:

*Port Eads.*—Yellow fever has appeared at Port Eads—mouth of Mississippi, on 5th inst. Thirteen cases, but no deaths, to yesterday noon.

*New Orleans.*—Since last report 236 cases of yellow fever and 65 deaths, making 431 cases and 118 deaths to yesterday noon. At

*Cincinnati* there have been only 2 cases of yellow fever (one previously reported) both from New Orleans—one fatal. A young man arrived at

*Memphis*, from New Orleans, July 30th, who died of yellow fever Aug. 3d. Steamer "Golden Crown" from New Orleans had one case of yellow fever on passage up—a lady, who died on board and was buried at

*Caledonia, Ill.*, Aug. 4th. Two deck-hands supposed to have yellow fever landed at *New Albany, Ind.*, July 25th, proved, upon investigation by Surgeon Long, of this service, not to have been that disease. On a steamer at Vicksburg, a case arrived from Cairo, originally from New Orleans; died of yellow fever Aug. 9th.

*Key West.*—No new cases of yellow fever past week to noon to-day.

*Havana.*—Two hundred and thirty-nine deaths from yellow fever and twenty-one from small-pox during two weeks ending Aug. 3d.

*Matanzas.*—From July 26th to 29th no yellow fever cases, but on 30th four new cases were reported in bay, and others have since occurred daily to Aug. 2d—date of advice.

*Cardenas.*—Yellow fever in city, but not yet among shipping.

*Sagua la Grande, Cuba.*—One fatal case of yellow fever in shipping.

*Bombay.*—Twenty-six deaths from cholera, week ended June 18th.

*Malta.*—Outbreak of cholera on British troop-ship from India was brought under control by authorities, and disease did not lodge in Malta—advices to July 18th.

Reports from other places indicate good health.—JNO. M. WOODWORTH, Surgeon-General, U. S. Marine Hospital Service.

REGULATIONS FOR THE STUDY OF MEDICINE IN FRANCE.—The following is the text of the decree of June 20, 1878, relating to the conditions that must be fulfilled in order to obtain the degree of doctor of medicine in France:

Art. 1. The studies to obtain the degree of doctor of medicine shall last four years; during the first

three years they may be carried on in the facultés, in the écoles de plein exercice, or in the écoles préparatives de médecine et de pharmacie.

The studies of the fourth year can only be made in a faculté or in an école de plein exercice.

Art. 2. The candidates must produce at the beginning of the first term the diploma of bachelor of sciences, limited in the mathematical part.

They must undergo five examinations and defend a thesis. The second, third, and fifth examinations are divided into two parts. The examinations at the end of the year are suppressed.

Art. 3. The five examinations are on the following subjects:

*First Examination.*—Physics, chemistry, medical natural history.

*Second Examination.*—First part, anatomy and histology. Second part, physiology.

*Third Examination.*—First part, surgery, midwifery, operative medicine. Second part, internal medicine, general pathology.

*Fourth Examination.*—Hygiene, legal medicine, therapeutics, materia medica, and pharmacology.

*Fifth Examination.*—First part, surgical and obstetrical clinics. Second part, medical clinics, practical demonstrations in pathological anatomy.

Art. 4. The first examination takes place after the fourth term and before the fifth; the first part of the second examination, after the tenth and before the twelfth term; and the second part, after the twelfth and before the fourteenth term. The third examination cannot be passed until the expiration of the sixth trimestre of study.

Any candidate who does not pass the first examination in November, at the latest, will be put back to the end of the scholastic year, and will not be permitted to take out any inscription during the course of that year.

Art. 5. Candidates for the doctorate, pupils of écoles de plein exercice or of the écoles préparatives, are examined by the facultés at the periods fixed in the preceding article. They may be allowed, however, without interrupting their studies, to defer the first examination until after the twelfth term. In that case they must pass the second examination (both parts) before the thirteenth term, and, from the commencement of the second year of study, are subjected to interrogations at the end of each semestre, the results of which are transmitted to the universities, to be taken into account in the examinations for the doctorate.

Art. 6. The inscriptions for officier de santé must not, under any circumstances, be converted into inscriptions for the doctorate, in the case of pupils following their course of study; this conversion may be permitted in the case of officiers de santé who have practised medicine for at least two years.

Art. 7. Practical work in the laboratory, dissection, and residence near the hospitals, are obligatory. Each annual period of work in the laboratory and dissection comprises a semestre. Residence near the hospitals must continue for at least two years.

Art. 8. The fees to be paid by the candidates for the degree of doctor of medicine are fixed as follows:

|                                                   |                     |
|---------------------------------------------------|---------------------|
| 16 terms, at 32 fr. 50 c. ....                    | 520 fr. or \$104.00 |
| 8 examinations, at 30 fr. ....                    | 240 " " 48.00       |
| 8 certificates of proficiency, at 25 fr. ....     | 200 " " 40.00       |
| Outlay for materials used in practical work. .... | 160 " " 32.00       |
| Thesis. ....                                      | 100 " " 20.00       |
| Certificate of proficiency. ....                  | 40 " " 8.00         |
| Diploma. ....                                     | 100 " " 20.00       |

1,360 " " \$272.00

Art 9. Any candidate, who, without an excuse that is acceptable to the jury, fails to answer to his name on the day that has been indicated to him, will be sent back for three months, and will forfeit the fees paid by him for the examination.

The remaining articles of the decree are of little interest, except Art. 11, which enacts that the decree shall go into force on the 1st of November, 1879, and that students inscribed before that date will be allowed to choose between the new mode of examinations and the one now in force. In any case, however, they must be examined on all the subjects enumerated in Art. 3.

**NEW ADULTERATION OF THE SULPHATE OF QUININE.**—Dr. Jaillard reports (*Arch. Méd. Belg., Jour. de Méd. de Bruxelles*) a new method of adulterating the sulphate of quinine, which consists in the addition of sixty per cent. of nitrate of potassa. The mixture, prepared with great skill, gives a saline material formed of needle and mixed crystals, silky-looking, and greatly resembling those of sulphate of quinine. Nevertheless it is easy to distinguish them from the pure substance; they have indeed a bitter taste, but they are also a little salty; they dissolve almost entirely in cold water, and more feebly in alcohol at 90° of purity, even when boiling. Besides these, there are several other methods of discovering the fraud mentioned by this author. We cite only the employment of the microscope, which shows in the mixture the great prisms of saltpetre by the side of the fine needles of sulphate of quinine, and one other process of great simplicity. This consists in placing on the point of a knife a small quantity of the salt to be examined, and submitting it to the action of a flame. If the article is adulterated with nitre, it burns with a flame and leaves a white residue composed of potassa. If, on the contrary, it is pure, it burns with a fuliginous flame and leaves a purified-up pellicle of carbon.—*Gazette Médicale de Paris*, May 11, 1878.

**TREATMENT OF SCARLATINAL SORE THROAT.**—In order to diminish the pain which accompanies deglutition in scarlatina, Dr. Griffith recommends painting the fauces several times daily with a solution of oleo drachm of chloral hydrate in five drachms of pure glycerine.

The second annual meeting of the American Dermatological Society will be held at the Grand Union Hotel, Saratoga Springs, New York, on the 27th, 28th, and 29th days of August.

Dr. JOHN C. BEALES, whose death was recently chronicled in the daily papers, was born in Norfolk, England, in 1803. He received his medical education at St. George's Hospital, in London, and was a private pupil of Sir Benjamin Brodie, and afterwards prosector and dresser to Sir Astley Cooper. Receiving an extremely lucrative appointment as surgeon to English mines in Mexico, he went there in 1824. A few years later he moved to the city of Mexico, where he engaged in private practice, and was made Professor of Obstetrics and Surgery in the old college of the city. About the year 1839 he came to New York, and within a few months entered into partnership with Dr. William Barrow. He was one of the founders of the St. George's Society, and for ten years its president. Though a sufferer for the last thirty years from an enlarged heart, he continued the active practice of his profession until within two years. He leaves behind him an unusual number of devoted friends, bound to him both by strong professional and personal ties.



## Original Lectures.

## LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

By E. C. SEGUIN, M.D.,

CLINICAL PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

## LECTURE VI.

SUMMARY:—LESIONS OF THE GREAT GANGLIA AT THE BASE OF THE BRAIN, AND OF THE WHITE SUBSTANCE OF THE HEMISPHERES.—SKETCH OF THE PHYSIOLOGICAL ANATOMY OF THESE PARTS: LESIONS OF THE GREAT BASAL GANGLIA; OF THE INTERNAL CAPSULE, AND OF THE REMAINDER OF THE WHITE SUBSTANCE.—LESIONS OF THE CEREBELLUM.

GENTLEMEN:—The great ganglia at the base of the brain are from before backward, the nucleus caudatus and the nucleus lenticularis of the corpus striatum (the intra- and extra-ventricular portions of the corpus striatum, according to English and American books), the thalamus opticus, and the corpus quadrigeminum (or tubercula quadrigemina). These masses of gray matter are of course double, *i. e.*, symmetrically arranged on either side of the median line. Their relations to adjacent portions of the brain are of great importance to us, and worthy of a somewhat detailed study.

In very general terms, it may be said that all of these bodies have at least a duplex connection, one superior with the cortex of the brain, the other inferior with the various parts which make up the mesencephalon. More particularly, the nucleus caudatus (intra-ventricular nucleus of the corpus striatum) sends bundles of fibres downward into the crura, and the same is true of the externally-placed nucleus lenticularis. So we say that both parts of the corpus striatum are intimately connected with the basis cruris cerebri.

On the other hand, the thalamus and corpus quadrigeminum are intimately united with the nucleus of the tegmentum, and send bundles of fibres into and through it, in the posterior or sensory system of the mesencephalon. Physiologically, we may look upon the basis cruris and its superadded ganglia as motor in function, and upon the tegmentum cruris as sensory and as the seat of performance of important and complex reflexes.

As regards the other connections of these bodies, they are probably connected with their homologues across the median line, and superiorly with various parts of the cortex. There would seem to be, judging from a series of cases of cerebral atrophy, a bundle of nerve-fibres connecting the nucleus caudatus of one side with the opposite half of the cerebellum by way of the processus cerebelli ad cerebrum. At any rate, great atrophy of the right hemisphere (for example) and corpus striatum is usually accompanied by atrophy of the left hemisphere of the cerebellum. I need hardly remind you of the intimate union between the optic tracts and the corpus quadrigeminum and the external portion of the thalamus.

The white centre of the hemispheres is made up of many separable fasciculi, the physiology of many of which is as yet obscure. In the first place, we can demonstrate in it commissural bundles running in

various directions: transversely, connecting various portions of the cortex of both hemispheres by way of the corpus callosum and the so-called commissures; others extend longitudinally in one hemisphere, connecting the convolutions of one lobe with those of another; yet others simply bind together adjacent convolutions. Secondly, there are heavy masses of fibres extending from the basal ganglia to the convolutions of the hemispheres, constituting a great part of what is known as the corona radiata. Thirdly, and most important in pathology to-day, is a bundle of white substance in each hemisphere, which directly unites the cortex of the brain with the crura, pons, and spinal cord—the so-called internal capsule.

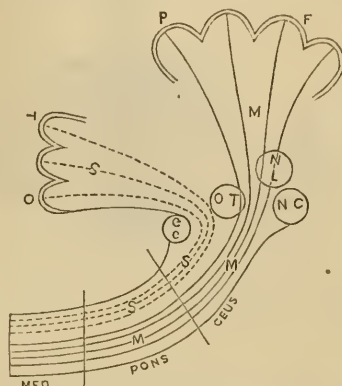


Fig. 7.—Diagram of course of sensory and motor tracts in the mesencephalon and hemispheres. S, sensory tract in posterior region of mesencephalon, extending to O and T, occipital and temporal lobes of hemispheres; M, motor tract in basis cruris, extending to P and F, parietal and (part of) frontal lobes of hemispheres; C, corpus quadrigeminum; O T, optic thalamus; N L, nucleus lenticularis; N C, nucleus caudatus.

This fasciculus appears (upon anatomical and physiological evidence) to be the continuation of the sensory and motor tracts which we have studied in the basis cerebri. The extension of the sensory tract upward from the crura into the internal capsule is not so clear as is the continuity of the motor tract anteriorly. This, denominated by some the puduncular tract, and designated in Lect. V. as the *direct cerebral motor tract*, can be traced by dissections, by physiological experiments, by embryology, and lastly by the help of pathological processes (descending degeneration) from certain convolutions of the cortex cerebri into the anterior half or two-thirds of the internal capsule, into the crus cerebri, the pons, the medulla, and (in accordance with the law of decussation—*vide* Lect. IV.), into both halves of the spinal cord. The composition and extension of the internal capsule is rudely represented in diagram by Fig. 7. Its exact position in the hemisphere and its relations to other parts of the encephalon is well shown in Fig. 8, modified from a cut in Prof. Charcot's Lectures on Localization in Cerebral Diseases. This represents a transverse vertical section of the hemispheres made through the middle of the optic thalamus. The internal capsule is seen to lie between the external border of the thalamus and the nucleus lenticularis of the corpus striatum. In this location the bundle is much compressed, and seems to have little or no connection with the gray bodies just named; it expands in every direction after passing them, and its anterior fibres are ultimately distributed to the middle regions of the cortex cerebri—motor district—embracing the third frontal, the posterior extremities of the first and second frontal, the ascending frontal convolutions,

\* Delivered at the College of Physicians and Surgeons during the months of December, 1877, and January, 1878.

also the ascending parietal and first parietal convolutions; also, lastly, to the continuation upon the inner surface of the hemisphere of the ascending frontal and parietal convolutions which make up the paracentral lobule. The posterior third of the internal capsule is very probably distributed to the occipital, temporal and second parietal convolutions—the supposed sensory gyri.



FIG. 8.—Moll's diagram from Charcot's diagram, to show position, relation, and distribution of the internal capsule as seen in a vertical transverse section of the brain on a level with the greatest development of T.O., thalamus opticus. I.C., location of internal capsule; N.L., nucleus lenticularis; E.C., external capsule; D., claustrum; N.C., nucleus caudatus; M.R.C., motor regions of cortex cerebri; I., fibres representing the radiation of the internal capsule vertically to the motor region of cortex.

Both common sensory tracts, the posterior part of the internal capsule contains fibres which are directly or indirectly connected with the special sense organs, viz., the optic, olfactory, gustatory, and acoustic. This is shown by the fact that total hemi-anæsthesia in man results from lesions involving the internal capsule; from experiments upon animals, whereby certain occipital or temporal convolutions being removed, blindness or deafness is caused on the opposite side.

The physiology of the great ganglia, commissural fibres, and internal capsule is far from satisfactorily marked out. Many glaring contradictions are apparently proved by the experiments of different observers. It would appear well settled that the corpus quadrigeminum and the corpora geniculata are a part of the optic apparatus; that the nucleus caudatus and the nucleus lenticularis have motor functions of some sort. The greatest uncertainty exists, I think, concerning the attributes of the thalami optici.

On the other hand, we now know pretty positively that most of the sensory paths for the body pass in the posterior part of the internal capsule, laceration of this part in animals being invariably followed by hemi-anæsthesia on the opposite side. That the thalamus has anything to do with the perception of sensations is rendered doubtful by the occurrence of cases in which lesions, strictly limited (*i. e.*, not pressing on adjacent parts) to the thalamus have produced no special symptoms. The same objection (pathological) can be urged against the view that the nucleus lenticularis has important motor functions. That the anterior part (two-thirds?) of the capsule consists of motor fibres is likewise quite well established by experiments upon animals and by the study of patho-

logical cases.\* What the functions of the various commissural fibres may be, is, at the present time, only a matter of speculation more or less logically constructed.

## 1. LESIONS OF THE BASAL GANGLIA.

The generally received statements that lesions of these bodies produce definite symptoms—lesions of the nucleus lenticularis and nucleus caudatus paralysis, and lesions of the thalamus opticus anæsthesia—are, I think, very questionable. From the evidence now before us it seems doubtful if lesions of the nucleus lenticularis, and of the thalamus, produce any symptoms except by exerting pressure upon the internal capsule lying nearby. At any rate, cases of destruction of large parts of these bodies without symptoms are on record. As regards the nucleus caudatus, it is possible that its destruction is followed by hemiplegia and secondary degeneration; but on the other hand, it must be admitted that almost all lesions of this body are so placed, and of such a nature, as to cause pressure upon the motor portion of the internal capsule. This is especially true of hemorrhage, as shown by Prof. Charcot in his recent lectures on the brain.

## 2. LESIONS OF THE INTERNAL CAPSULE.

These, on the other hand, produce, as shown by the recent study of pathological evidence, and by experiments upon animals, constant symptoms. If the anterior half or two-thirds of the capsule be injured, we have hemiplegia on the opposite side of the body; more or less perfect hemiplegia according to the exact seat and size of the lesion. It will be readily understood that lesions (especially hemorrhage and tumors) of parts adjacent to the capsule, such as the lenticular and caudate nuclei, the white centre of the frontal lobe, etc., may by pressure bring about a similar result. Besides paralysis, descending secondary degeneration is an inevitable result of lesions of the internal capsule. This lesion can be traced downward through the whole length of the direct cerebral motor tract so frequently referred to before, to the lower end of the spinal cord. Lesions of the nucleus caudatus are also said to produce the same results, but recent researches (Flechsig) throw doubt on this.

If the posterior part of the internal capsule be injured directly, or indirectly by the pressure of lesions in adjoining regions, there is produced anæsthesia, more or less complete, on the opposite side, usually with only slight paralysis. If the lesion be considerable the anæsthesia is absolute; *i. e.*, the special senses and common sensory nerves lose their function, or more properly speaking, impressions coming through these cannot reach the perceptive centres. Hemiopia is never (?) thus produced, and Charcot explains this by supposing a second semi-decussation to take place

\* Since these lectures were delivered, a brilliant and final proof of the motor functions of the anterior part of the internal capsule, and of the continuity of the motor convolutions and the direct cerebral motor tract has been advanced by the French experimenters, Franck and Pires (*Le Progrès Médical*, Jan. 19, 1878). These physiologists found that by paralyzing those parts of the white centre of the hemisphere which lie underneath the so-called cortical motor centres, they were able to produce definite movements in parts of the body on the opposite side. This tract of white matter, constituting the anterior portion of the internal capsule, contains physiologically distinct fasciculi which are connected on the one hand with the motor districts of the cortex, and on the other hand with peripheral parts of the body across the median line.



in some part between the chiasm and the internal capsule; probably in the corpus quadrigeminum. A reference to Fig. 6, Lect. V., will, I trust, make this hypothesis plain.

Yet a third symptom results from lesions of the internal capsule, viz., choreiform movements following hemiplegia and hemi-anæsthesia. These movements vary in degree and type from true athetosis to ataxia, from chorea to tremor, and constitute an interesting symptom-group, well worthy of further study. In my own cases of post-hemiplegic chorea, hemi-anæsthesia of slight degree was present, and in one case lateral hemipia.

Extensive lesions of the central parts of the hemispheres may produce, besides the specific signs named above, a number of other symptoms. Thus, suddenly produced lesions (hæmorrhage, softening) will nearly always cause conjugate deviation of the eyes and head. The patient, though insensible, turns his eyes and head constantly to one side, toward the injured hemisphere, and away from the paralyzed side. In spite of a recent attempt to impeach the value of this symptom of hemispheric injury, I am disposed to attach value to it. Great increase in the bodily temperature also follows large injuries.

Other lesions, such as cause pressure, and slowly grow to a great size (tumors), cause, in addition to the specific signs dependent upon their exact location, the change within the eye which we call neuro-retinitis, (*vide* Lect. V.). They will also usually produce convulsions.

As regards the remainder of the white substance, such as the central regions of the frontal, occipital, and temporal lobes, modern critical study of recorded cases would seem to indicate that lesions involving these parts in such a way as not to press upon the internal capsule and nucleus caudatus, do not give rise to any symptoms; e. g., an immense abscess may occupy the temporal and occipital lobes, or the anterior part of the frontal lobe, without causing paralysis or anæsthesia. Anatomy and experimentation, however, seem to indicate that lesions of the occipital and temporal lobes should give rise to sensory symptoms; and a more careful study of cases of disease in these parts is just now a desideratum.

We do not know any more relative to lesion of the great commissural bundles which unite the two hemispheres and different parts of one hemisphere. The cases of congenital absence of the corpus callosum on record do not teach anything definite.

### 3. LESIONS OF THE CEREBELLUM.

I add a few words relative to another *terra incognita* in the brain, the cerebellum. Its situation is known to all of you, but there are a few points in its anatomy to which I would specially invite your attention. In the first place, this great mass of nervous matter is closely bound down by a strong fibrous covering (a bony septum in some animals), the tentorium cerebelli. This fold of dura mater probably serves important purposes in health, but in case of disease in the cerebellum it causes pressure-effects to be transmitted chiefly forward and downward. This is important to bear in mind when studying the effects of cerebellar lesions. Second, the cerebellum is remarkable for its numerous connections with other parts of the nervous system. Fibres connect each of its hemispheres with the nucleus caudatus and cerebral hemisphere of the opposite side, by means of the crura cerebelli ad cerebrum. Other fibres, forming heavy bundles, make up the crura ad pontem or lateral peduncles of the organ; extending deeply into the white and gray substances of the

mesencephalon. It is probable that each half of the cerebellum is thus connected with the opposite half of the pons; possibly some fibres are strictly commissural, i.e., unite the two hemispheres of the organ after passing over the pons. Lastly, the cerebellum is connected with the medulla and spinal cord. It forms, by means of the crura cerebelli ad medullam, close connections with the olivary bodies, and with the external portion of the lateral columns (near the extremity of the posterior horns) in the spinal cord. It has been claimed that some cranial nerves (third, fourth, and acoustic) have been traced into the cerebellum, but the evidence on this point is unsatisfactory. Third, the cerebellum overlies highly important organs, and this proximity serves to explain much of the semeiology of its lesions. In front of it is the corpus quadrigeminum and the tegmentum cruris, with its contained vaso motor (and convulsive?) centre; beneath it the medulla oblongata, with its floor and such vital nerves as the pneumogastric and the spinal accessory.

The physiology of the cerebellum is at the present day quite unknown. That it serves for purposes of co-ordination in a direct and positive manner is disproved by experimentation and pathology; that it is a centre for the movements of the eyeballs (Ferrier) is equally doubtful; and so is the view that it is the seat of psychical attributes of an emotional character. Mitchell's hypothesis, that it is a store-house of nerve force for use in emergencies, is plausible but unproven. The mechanism and purpose of the cerebellar connections is likewise not understood.

As regards the diagnosis of lesions of the cerebellum, I must admit that in the very numerous symptoms produced by them I do not know of one that is characteristic. In other words, lesions strictly limited to the substance of the cerebellum produce no definite symptoms: and on the other hand, the symptoms which we observe in cerebellar diseases are the result of pressure-effects upon adjacent parts. Thus, the affections of sight so common in cerebellar lesions are caused by pressure upon the corpus quadrigeminum or the corpora geniculata, and also upon the origins of the third, fourth and sixth nerves. The nausea, vomiting, and sudden death may be explained by irritation and paralysis of the nuclei of the pneumogastric nerves in the floor of the fourth ventricle; convulsions, by pressure upon the tegmentum cruris; the imperfect hemiplegia or general paralysis, by a similar action upon the motor regions of the mesencephalon. The diagnosis (assisted by predominance of pain in the occipital region) must be made chiefly by exclusion. A symptom of great importance when present is titubation. This has been termed cerebellar ataxia, but as a descriptive term titubation is better. The patient walks with his feet separated, his body bent a little forward and swaying, his hands and arms in use to preserve his equilibrium. There is no true ataxic jerking, no want of harmony between antagonistic groups of muscles, no choreic movements, no tremor.\*

\* After the delivery of this lecture Prof. H. Nothnagel of Jena, published in *Beiläufige klinische Wochenschrift*, 1878, No. 15) the results of his analysis of more than two hundred and fifty cases of cerebellar disease. His conclusions, I am happy to say, are substantially equivalent to what has been said above. However, Prof. N. is disposed to admit one symptom—cerebellar ataxia—as characteristic of injury to the cerebellum, or more properly, to one of its smaller parts, the superior vermiciform process. N. says that by cerebellar ataxia we are to understand a perversion of equilibrium closely resembling that observed in alcoholic intoxication: the patient titubates, stands with feet wide apart; if he be bare-footed the toes are seen in active motion; and in walking the body sways a good deal, the foot is brought down with ball or with heel first irregularly; closing the eyes sometimes makes standing and walking worse, sometimes not. In the recumbent position there is no ataxia. In the large majority of cases the upper extremities remain free from inco-ordination.

## DIAGNOSIS OF DISEASE—TUBERCLE IN GENERAL.—ACUTE MILIARY TUBERCULOSIS (PULMONARY).

BEING THE ABSTRACT OF A LECTURE, MARCH 7, 1878,  
AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE,

By BEVERLY ROBINSON, M.D.,

NEW YORK.

GENTLEMEN:—In beginning a course of lectures on diseases of the lungs, it seems only proper that I should say a few words, by way of introduction, on the general question of physical diagnosis.

By this term "diagnosis" is usually meant that portion of medical science which specially relates to the distinction or separation of diseases one from another. There is of course a "medical diagnosis" in a more restricted sense, which refers to affections in the domain of internal pathology, as distinguished from a "surgical diagnosis" which has taken for its field of insight and work all matters relating to external pathology. In diagnosis we have a science and an art combined. To the science properly belongs our acquired knowledge of the deviations from the laws of health, our familiar acquaintance with the accurately defined morbid conditions, the symptoms which make known each special pathological process, the power we possess by defined methods of reasoning to arrive at more or less certain final conclusions. In applying the art of diagnosis, our senses of sight and hearing, of touch, of smell, of taste, may all be put into requisition. These senses may do their work unassisted, or they may call to their aid many modern inventions which give additional certainty to our researches. The microscope widens greatly our unaided vision and enables us to behold the mysteries of the growth and structures of our tissues; chemistry bids us analyze, or make, by synthetic union, many substances of importance to the animal economy. As we shall see later on, the thermometer and stethoscope help the clinician daily and hourly in his interpretations of morbid effects. In discovering certain symptoms of disease, the merest beginner may soon prove himself capable; in tracing out the origin and nature of obscure forms of malady, the most matured medical mind is frequently at fault. When we have found singly, or collectively, the symptoms of a given disease, we should endeavor to determine their significance. And herein the knowledge acquired by our predecessors is of service to us. It enables us frequently to make of a science of what might or should be, a science of genuine, rigid affirmations. It will not do, however, to consider any mere group of symptoms; all attendant circumstances should be investigated, and our knowledge of other subjects, broad though it be, may be most useful in establishing our convictions. The essential points must of course be first weighed, and their tendency to attach themselves to a particular organ, or function, not overlooked; but, in addition, all secondary symptoms have their value, and the previous history should likewise be interrogated. Sometimes a few characteristic features make a diagnosis evident after a very brief examination; again, all that concerns the individuality or general condition of the patient must be clearly exposed, and the non-existence of some confusing affection must be established. Never should minor points be brought forward too prominently, and our treatment should be such as to give still greater light to our research. Finally, it is well to remember that treatment and not diagnosis is the ultimate end of all clinical investiga-

tion, and we will do well to keep this fact present to our minds.

In the investigation of diseases of the chest we are in the habit of using the following methods of examination, viz.: inspection, mensuration, palpation, percussion, and auscultation. The details in reference to their manner of application are found in text-books on this subject, and need not be recapitulated at present. No more should the various mappings-out of the chest be severally detailed. All these divisions are arbitrary and misleading, except the anatomical one, and this latter I therefore greatly prefer in my study of abnormal changes. All physical diagnosis, to be well known, must be studied at the bedside, or upon patients who exemplify morbid conditions. Books are good adjuncts, but not solely to be relied upon. What the amphitheatre and lecture room teach is far more durable and important to the practitioner than theories evolved in the silence of one's study.

I shall now consider with you a most interesting and somewhat rare form of pulmonary affection, viz.: acute milary tuberculosis. The bibliography of this subject merits attention, and it would be ill-judged completely to ignore it. The names of Buhl, Jürgensen and Cohnheim in Germany, Fox in England, and Barthéz, Thaon, and Charcot in France, stand out prominently in an extensive list of those who, in later years, have made personal researches in regard to the real nature of tubercle. Unfortunately, our own countrymen have contributed but little towards the solution of this problem. As you are aware, much obscurity exists in the minds of many practitioners as to the meaning of the term "tubercle." The opinions have been various, and each shade of belief has been stoutly upheld by devoted adherents.

Laennec first (1837), and then Rokitansky (1842), were of opinion there was only one kind of phthisis, and this phthisis was denominated by them "tuberculosa." The gray granulation was the sole elementary factor of all consumptive changes, and to its subsequent development was entirely due all those cheesy degenerations which are frequently met with in different viscera. At a later period, when it was found that many cheesy masses were wholly the products of simple inflammation, the theory of Laennec commenced to lose importance. Virchow, notably, held that the gray granulation alone should be called "tubercle," and insisted that pathologists should endeavor to prove *what cheesy products* were inflammatory, and *what* were degenerated tubercles. Shortly, then, there were established two kinds of phthisis, one inflammatory, the other tuberculous, and this distinction continued to be upheld by Niemeyer and other German authors, notwithstanding a similarity of etiology, symptoms, and occasionally, too, of anatomical conditions.

Villemin (1866) then commenced to demonstrate experimentally the infectious nature of tuberculosis, and it was noted by other observers that milary tubercles might result from *reabsorption* when there were pre-existent cheesy conditions in the body. Thus, milary tubercle became a *secondary*, and not a *primary* lesion. It was further demonstrated that as certain animals (guinea-pigs, rabbits) had a predisposition to the formation of tubercles, so human beings of a scrofulous constitution had this same tendency markedly developed. In them inflammation takes a peculiar course: the cheesy infiltrations and suppurations of mucous membranes elaborate a poison which, when absorbed, produces tubercles.

Here then is the real connection existing between scrofula and tuberculosis. And tubercle may be defined as a "circumscribed" focus of scrofulous inflam-



mation excited by resorption of some irritating substance and taking its origin in a fixed cell of the vascular connective tissue (Rindfleisch). The "giant-cell" is an enlarged endothelial or connective-tissue cell, with an increased number of nuclei. It is not characteristic of tubercle, and may occur in many other kinds of growths.

Formerly acute miliary tuberculosis of the lungs was synonymous with acute phthisis. Now, most reliable authors separate these diseases, as the miliary granulation is not an invariable accompaniment of consumption. Moreover, the symptoms, course, prognosis, and therapeutics of these affections are not similar. Surely, therefore, there exist sufficient grounds for a distinction to be made. They are approached by their etiology, inasmuch as the miliary tubercle may be found in lungs where the lesions of acute or chronic phthisis are present, and also in organs which previous to their existence had been entirely healthy. The origin of such tubercles can, however, usually be found in some caseous mass existing elsewhere in the body, and whose particles have been transported by the vessels to a region far removed. Mangetus and Bayle were the first authors who recognized acute miliary tuberculosis as a distinct form of disease. Lennec and Louis describe it under the head of acute phthisis. Leudet made three well-defined varieties of it, basing each variety, of course, upon a difference of general appearance in the symptoms of disease, rather than upon a separation of anatomical lesions. These varieties have been called a typhoid, a catarrhal, and a latent one. The former certainly demands most consideration as being the one with which typhoid fever is frequently confounded.

The only direct cause of acute miliary tuberculosis of the lungs which has yet been found is the absorption of caseous matter.

From this source, in whatever organ it be present, corpuscular elements are transported by the lymphatics and blood-vessels, and produce irritation and its results at the points where secondary formations are effected. It is at once understood that acute miliary tuberculosis must be regarded as an infective disease arising from absorption; it is no longer to be thought of as an acute variety of pulmonary consumption. This belief, moreover, is supported by the great frequency of the pulmonary seat of the disease, and by the fact that it is preceded usually by inflammatory lesions of the apices of these structures. While, however, pulmonary consumption is one of the most frequent of its causes, it may be brought on by many other conditions, such as caseous glands, caries of bones, inspissated abscesses, and ulcerations of mucous surfaces (typhoid fever). Acute miliary tuberculosis is not limited to individuals whose health is impaired. It may also occur in apparently vigorous constitutions. I myself have met with such cases, of which a notable example occurred lately in my service at Charity Hospital.

The post-mortem of this patient was made, and not only the lungs were studded with miliary tubercles, but also the coverings and interstitial tissue of many viscera. No focus of original inflammation or cheesy degenerative changes could be detected after rigid and careful examination. We perceive, therefore, that although this disease often manifests itself as an aggravation of pre-existing changes, it occurs, at times and in so far as our limited insight extends, as an acute primary affection. The initial symptoms are, in this case, fever, prostration, headache, and insomnia. The respirations are increased in frequency, though without marked dyspnoea at first. Auscultation

of the lungs reveals in the beginning sonorous rhonchi, soon followed by crackling râles. Then dyspnoea appears and grows by rapid degrees very intense. The pulse ranges between 120 and 140 in the minute. The temperature, according to Rindfleisch, is not very high. In my own experience and that of certain other writers, it has been excessive more than once, and generally is much elevated. The most characteristic feature of the temperature tracing in these cases has been the time of its maximum elevation, which usually occurs in the morning. The evening temperature is often relatively low, and between the two considerable differences may be noted ( $4^{\circ}$ - $6^{\circ}$ ). This fever is accompanied with profuse sweatings. It has no definite type, and variability is its evident feature. The frequency and feebleness of cardiac contractions, besides being made known directly through auscultations, are doubtless somewhat responsible for the cyanosis of the face and extremities. The nervous symptoms are uncertain and do not help the diagnosis except where the meninges are implicated. The digestive system is far from showing normal functions, but it never betrays the nature of the ailment in a reliable manner. At one time we may have absolute anorexia, a dry mouth, and obstinate constipation.

Again, the buccal cavity is moist, the bowels rather loose, the abdomen slightly enlarged and tympanitic. With a somewhat enlarged spleen, great and daily increasing prostration, a notable tendency to a comatose condition, and urine loaded with the excreta of febrile movement, one can appreciate how readily typhoid fever is thought of. But in acute miliary tuberculosis the chest-symptoms, when carefully analyzed, help us in a measure to solve our difficulty. Here we find an acute diffuse bronchial catarrh apparently, but with a cough which is more constant and fatiguing, unless the capillary tubes be implicated. The sputa, too, are abundant, colorless, and viscid. There are no epistaxes, no roscola in the second week, and a march which is very rapid and fatal. In this disease and in acute bronchitis, percussion generally remains negative, though it may vary. The rapid loss of strength and frequent breathing without dyspnoea are signs which shall help us most to make a differential diagnosis. In bronchitis of the small tubes, the best diagnostician will be at fault if he relies solely upon the interpretation of physical signs. No symptom, or group of symptoms, is pathognomonic. And if the patient be seen late in the disease and there be no accurate preceding history, a diagnosis is frequently made which the autopsy completely disproves. The diagnosis with *galloping consumption*, meaning by this term, also, similar affections, though differently named by various authors, viz.: catarrhal phthisis, pneumonic phthisis, rapid consumption, etc., is the most interesting one to make both before and after death. During this latter form of disease we have during life the following succession of symptoms: a patient, who has been previously somewhat delicate and ailing, or else who has always enjoyed good health, is taken suddenly with an abundant hæmoptysis, and from that time appears to melt away visibly. Again we have instances where a patient has taken a severe cold, which is at first limited to the bronchial tubes, or else commences as an invasion of lobular, or croupous pneumonia. Such an one passes safely through the first stages of disease, but, instead of recuperating rapidly, remains feverish, prostrated, without appetite, and having frequent cough shortly followed by abundant mucopurulent sputa. Moist râles appear at the apices of the lungs,

there is deficient lung-expansion, and in a few weeks we have all the evidences of rapid and extensive breaking-down of pulmonary structure. If death results at this stage, as it ordinarily does, the autopsy reveals numerous cavities more or less extensive, disseminated throughout the lungs, but which are markedly distinctive and large in the upper lobes. Upon section of tissue in various places, we find a great deal of consolidated tissue of grayish or yellowish coloration. There is no crepitation upon pressure in these diseased portions of lung; they have lost all elasticity, and sink immediately when immersed in water. We may find a few crude tubercles disseminated throughout the tissues involved, but they are usually in small number relatively, and appear to be a secondary formation. The essential element in the disease brought to your attention is the degeneration of pneumonic inflammatory products, which have very rapidly become cheesy and softened here and there, where there are oftentimes also cavities which contain absolutely similar elements to those which have appeared during life in the expectorated substances (mucous, pus, broken-down epithelium, fat-globules, granular bodies, bits of connective tissue, and albuminoid fluid). Now, note well the clinical features of acute miliary tuberculosis! In this disease there is no abundant hæmoptysis in the beginning, but there is very rapid breathing without dyspnoea. Upon auscultation of the chest the sounds which characterize phthisis are not heard. There is no dulness more or less limited to the upper lobes, no pectoriloquy, nor gurgling respiration in the after-stages. What is discovered are the physical phenomena which belong, as already mentioned, to acute capillary bronchitis, *i. e.*, small, moist râles disseminated throughout the chest, followed by deficiency or absence of normal vesicular breathing, but without evidence of consolidation of lung, unless a pre-existing catarrhal process be present as a complication. After death, the lungs are found (as is beautifully shown in the specimen I hold in my hands) to be thickly studded everywhere with gray, glistening, and minute granular bodies which are nothing more nor less than miliary tubercles. They are, as a rule, uniformly disseminated throughout this portion of the air-passages, and only in exceptional cases conglomerated in larger numbers in particular spots.

According to Sir Thomas Watson, these miliary granulations are often the direct efficient cause of the concomitant inflammatory condition which they excite by their abundance and sudden pressure. He expresses himself in this connection as follows: \* "Such, and not the reverse sequence, appears to me to be the *ordo rerum*. The tubercles are the cause of the inflammation, and not the inflammation the cause of the tubercles." This you perceive, gentlemen, is opposed to the German theory of the proper chronological order of the development of two juxtaposed and concomitant processes. It would appear, however, after the very latest information we have from French experimenters, to be in accordance with some of their most reliable conclusions (Charcot, Thaon). The duration of acute miliary tuberculosis is very short, only lasting a very few weeks. The prognosis has ordinarily been considered of the gravest, and its termination, until within a brief period, has been marked out as rapidly and almost, if not certainly, fatal. Such are the opinions recorded by Bennett,† Walshe,‡

Watson, \* Troussseau,† and Flint.‡ A few German authors (Waller, Wunderlich, Burkart, etc.) having recognized at autopsies disseminated, chalky nodules in lungs which had evidently been the seat of miliary tuberculosis, and having shown that these calcareous deposits were transformed "gray granulations," have sustained the curability of this dread disease. Until the publication, however, of a little work by Dr. McCall Anderson, § entitled "Clinical Lectures on the Curability of Attacks of Tubercular Peritonitis and Acute Phthisis (Galloping Consumption)," I am not personally familiar with any author who has given the profession well-observed clinical studies which point graphically to the power drugs have in these cases, when made use of by a devoted and judicious clinical observer who puts proper faith in the armaamentarium of his professional acquirements.

Dr. Anderson's treatment is about as follows: 1. The patient should take a pill every 4 hours, with the following composition: ℞ pulv. digitalis and pulv. quiniæ sulph., aa gr. j.; pulv. opii, gr. ½. 2. Feed flannel cloths, well wrung out and folded twice, are placed constantly over the abdomen until the body temperature is reduced to the normal point. 3. A subcutaneous injection of sulphate of atropine is given so often as the abundance of the perspiration requires it. The three recorded cases, which are fully described, certainly support the efficacy of this treatment. All three got well and had a rapid convalescence (two to three weeks). After the fever had subsided in great part, an emulsion of cod-liver oil was given for quite a period, and the ultimate results were all that one could wish for.

On page 54 of his little treatise, Dr. Anderson asks the question, "Under what disease were our patients laboring?" "I think no one," he goes on to say, "who has had experience of such cases, and who saw them while the complaint was progressing, could doubt they were suffering from acute phthisis. . . . Of course I do not pretend to say whether they were cases of non-tubercular, or of tubercular phthisis, although the symptoms in the first and second cases seem to harmonize more closely with the descriptions of the latter form."

## CLASS-ROOM LESSONS ON SYPHILIS,

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

[For THE MEDICAL RECORD.]

### LESSON III.

HEREDITARY TRANSMISSION OF SYPHILIS—PROGRESS OF THE SYPHILITIC INFECTION.

GENTLEMEN:—I will continue the study of the question of the transference of syphilis by first directing your attention to its *hereditary transmission*.

Heretofore, in considering the modes of transmission of syphilis, we have accepted the probable fact that this disease is communicated by contact of a diseased with a healthy human germinal cell. We have now to consider how diseased cells, in the adult male or female suffering with syphilis, may be brought in

\* Vol. II., 5th edition. London, 1871.

† Reynolds's System of Medicine, Vol. III.

‡ Practical Treatise on Diseases of the Lungs. 4th edition. London, 1871.

\* Loc. cit.

† Clinical Medicine, Vol. III. London, 1870.

‡ Practice of Medicine. New York, 1876.

§ London, 1877.

| This pill was a favorite one of Niemeyer.



contact with those of the embryo, or of the foetal organism. It is claimed that the foetus, through the natural processes of growth and development, may be built up from a syphilitic seminal animalcule (*spermatozoon*), furnished by the male, in conjunction with an ovum furnished by a healthy, or even by a syphilitic female, and may thus come to comparative maturity. Much clinical material has been adduced to prove this. On the other hand, it is claimed, with equal proof of a similar character, that this is *never* the case, but that the syphilitic influence is *always* furnished by the *female*; presumably communicated to the embryo or foetus through contact with the nutritive elements, furnished by a mother in whose organism the degraded cells or disease germs of syphilis are present.

Like most important questions in which syphilis is involved, a solution of the foregoing, based on clinical evidence alone, is most difficult. The best proof of this statement is, that on either side of all such questions the most experienced and competent observers are ranged in nearly equal force. To constitute *hereditary* syphilis, either the embryo or the foetus must be infected. All infection during or subsequent to birth must be classed with one or other of the modes of transmission of syphilis previously considered.

If we accept the syphilitic influence to be, as previously claimed, a degraded formative cell, we may also accept, as a legitimate sequence, that, through this degradation, there is a loss of formative power—an inability to develop in any useful tissue.

The contagion of syphilis, as claimed, is always effected by contact of a *degraded* with a *healthy* germinal cell. In a strict sense, therefore, it is always localized. Cells thus degraded are practically emasculated; their capacity for usefulness is lost. Of necessity, then, *growth* of living tissue occurring must take place through the *normal* cell-elements, that is, in those which have escaped this degradation. It is thus plain that only a portion of the germinal material of a living organism can be affected by syphilis. Sufficient germinal material to carry on the processes of life and growth must escape, or growth would be at once arrested, and life would cease. The possibility of involving in the syphilitic dyscrasia so infinitesimal a fraction of a spermatogenic organism as would still enable it, in conjunction with the ovum, to play an efficient part in the growth and development of the human embryo, is scarcely conceivable. Especially difficult shall we find it to accept such a view, when we consider that, once in connection with the ovum, the syphilitic influence would be rapidly imparted to the germinal elements furnished by it. We may, then, consistently throw the great improbability of continued growth (or indeed of any growth), under such an unfavorable influence, into the scale with the clinical claims of those who *deny the possibility* of the embryo, or foetus, being infected with syphilis by the spermatozoa. With this view of the subject, the onus of hereditary transmission of syphilis is necessarily thrown upon the *MOTHER*, under all, even under apparently contradictory, clinical circumstances. Hence, when an embryo or foetus is the subject of syphilitic infection, we may conclude that it is the result of *contact* of its normal formative or germinal cells with cells degraded through the syphilitic influence furnished by the nutritive fluids of the *MOTHER*, either directly through the circulation, or through degraded cells from her organism gaining access to that of the embryo or foetus by their amoeboid power.

Hence, to make the syphilitic infection of an embryo or a foetus possible, the organism of the *MOTHER* must

*first* be infected with syphilis. The previous acquirement of syphilis by the *MOTHER* from the father, or through the secretion of a syphilitic lesion, or from the blood of one suffering from active syphilis (by direct or mediate contagion), is necessary to syphilitic infection of a foetus or an embryo.

It is only during the active stages of syphilis (primary and secondary periods) that the contagious element of the different lesions of syphilis and of the blood is present; therefore, hereditary transmission of this disease is only possible during this time (*usually* from one to two years). The sequelae of syphilis (tertiary and quaternary periods) contain no discovered elements of contagion. The most careful microscopical examinations have failed to discover in the products of *tertiary syphilis* (various forms of *gummata*, including eruptions) anything besides the debris of normal germinal elements. Repeated inoculations of these products have failed to disclose any contagious principle. *Without contagion there is no syphilis.* Hence, we may reasonably conclude that hereditary syphilis is only acquired during the active periods of the disease, and that, in order to effect syphilitic contamination of the embryo or foetus, the female organism must first be infected.

With this view of the maternal influence in syphilitic infection of the foetus or embryo, cases reported, claiming such infection to have occurred through the sole agency of the father suffering with syphilis (the mother, up to this time, free from the disease), must be classed either among those instances referred to where the characteristic features of the disease are absent, or so imperfectly developed as to have escaped detection.

The difficulty of instituting a thorough examination under circumstances where it is necessary to avoid suspicion of its object—the want of tact, care, and experience, in detecting obscure evidences of this disease, have, without doubt, too often led to the acceptance of syphilis acquired through the paternal influence, where, under other conditions, and in other hands, infection of the mother would have been recognized.

The following case will serve to indicate some of the various ways in which syphilis may be overlooked, and further, to show important variations in time and manner of development of syphilis from a similar source. Some three months since, Dr. W., a naval surgeon, consulted me in regard to a small nodule on the *frenum preputialis*. An abrasion was discovered, after a suspicious exposure, some four weeks previous. This healed at once, as if simple, and nothing further was noticed until the nodule, about the size of a kernel of pearl-barley, was observed. Its surface was abraded, probably during a recent connection. Its scanty secretion was found under the microscope to consist chiefly of laminated epithelial scales. On account of the obesity of the patient, a satisfactory examination of the inguinal glands was impracticable. No enlargement could be felt. I advised excision of the neoplasm. This was done at once, and healing by first intention was complete within forty-eight hours.

A few days since (Dec. 15th), the Doctor called to say that the operation had evidently been efficacious in saving him from a general syphilitic infection; that he had positive proof of having himself communicated syphilis to a young lady the night previous to the excision. In her case an initial lesion followed in due time after the connection, accompanied by inguinal gland enlargement, and followed by general gland hyperplasias. She now had, in addition, a characteristic papular syphilide, and yet *he*

claim I to be absolutely free from the least evidence of syphilis.

A cursory examination appeared to confirm the Doctor's statement. This, however, appeared so improbable, that I at once instituted a more thorough examination, which resulted in the discovery, under a deep layer of adipose, of small but characteristic gland enlargements in connection with the initial lesion. The cicatrix on its former site was slightly indurated. Glands at a distance—epitrochlear and post-cervical regions perceptibly enlarged. Slight, but positive congestion of the fauces, and a narrow but characteristic *mucous patch* hidden behind the anterior pillar on either side. These proofs of syphilitic infection had escaped the anxious search and skill of the patient, also of a professional associate, who was a competent and experienced general surgeon.

Through evidence furnished by clinical cases, it has been claimed that syphilis once acquired is never fully eliminated from the system, but that it exists as a possible infecting agent after the stages which furnish *known* contagious elements are past. During more than twenty years of observation and especial interest in regard to this point, I had been unable to find a single undoubted instance, where a person in a known *tertiary* period of syphilis (and so demonstrated by the absence of the glandular enlargements characteristic of the active stages of the disease) had been the proven carrier of syphilis to a healthy person. I came to believe fully that persons who had passed successfully through the so-called *primary* and *secondary* periods, and so proven by complete absence of *primary* and *secondary hyperplasias* that treatment was no longer necessary—that such persons might, if desirable, even be permitted to marry, with the assurance that, through them, transmission of syphilis to wife or child was impossible. This doctrine I had taught and practised for a very long period, when a case came under my observation which, but for a mere chance, had unsettled me on this vital point forever. The important lesson which it enforced, viz., *to distrust the value of purely clinical evidence*, may be profitably transmitted by the brief extract from my notebook which follows:

"Mr. Q., a young lawyer, age twenty-five years, acquired a well-marked initial lesion of syphilis on the *glans penis*. His gland enlargements in the epitrochlear, cervical, and post-cervical regions were characteristic; his roseola escaped observation, but a classical papular syphilide appeared about the fourth month, and continued for several weeks. Ulcerations of the tonsils and *mucous patches* on the soft palate and inner surface of the cheeks followed, but yielded satisfactorily to treatment.

"The gentle but persistent use of mercury internally and by inunction had been pursued from the first and through a period of twelve months, occasionally combined with the iodide of potassium. At this time all glandular enlargements had disappeared, except a small one, the size of a pea, in the right *post-cervical* region. Treatment suspended for three months, when a thin diphtheritic patch appeared on the right side of the tongue, with slight induration. Treatment resumed—mercury, with iodide of potash. Patch on the tongue faded slowly out in about a month, but was replaced by another on the opposite side, which continued about the same time; *cervical gland* not perceptibly changed. A series of mercurial baths and a course of Zittman's decoction, covering nearly three months longer; gland now scarcely felt. Patient very anxious to marry, but was advised to wait a full year. The next six months passed without any new develop-

ment. *Gland* very small, but still recognizable, when the patient, now in good general health, married on his own responsibility.

"One year after marriage the wife gave birth to a fine healthy looking boy. During the fifth month of lactation the wife had serofulous abscess of the neck (inherited tendency), which alarmed the husband (fearing syphilis) exceedingly. She recovered under simple treatment and relief from nursing. Child healthy up to third year, when it died from tubercular meningitis following scarlet fever. No salient evidences of syphilitic taint. Fear that his old trouble had been in some way connected with his child's death made the husband very unhappy, and he frequently expressed the fear that he had or might yet contaminate his wife, to whom he was tenderly attached.

"In November, 1870, Mr. Q. complained of some swelling and soreness over the right tibia. A gummy tumor was found presenting, the size of a horse-chestnut. Explained the nature of it, and put him on a mild mercurial, with large doses of iodide of potassium, which resulted in its entire disappearance within a month. Both husband and wife continued healthy up to October, 1871, when one morning he called, in great distress, to say that his wife had some sores in her mouth that resembled those of his early syphilitic trouble. I did not hesitate to assure him that this was simply impossible; that his disease, if any trace of it remained, was beyond the fear of contagion. The spotless character and chaste deportment of his wife made me sure there could be no other danger, and I comforted him accordingly.

"What was my surprise, on seeing her, to find, not only several characteristic mucous patches in her mouth, but, on further examination, to discover four or five mucous tubercles; one on the inner border of the thigh, and the others on the right labium. I was forced to acknowledge to the wretched husband that he was right, and we could only conclude, contrary to all my assurance and belief, that his old taint had been the cause.

"Here was a dilemma. I could not suspect the wife. I could not accept the contagion from a source which stultified all my conclusions, teaching, and experience. I was wretched. Husband was wretched, but resigned, so only, if not necessary to her recovery, that I could keep the secret from his wife. She was serene—after a few weeks' medication and not unfrequent painful applications of caustic to the mucous tubercles, I thought she was *too serene*. I asked and received permission from the husband to tell his wife what her trouble was, if I thought it best. I changed my manner to her, and from being sympathetic and considerate, I became brusque and reserved. An explanation was finally demanded. I evaded the issue. After a little dexterous fencing, the source of her troubles was flatly demanded. Ignorance of my meaning was feigned.

"I explained the only causes of her disease, and said she had been married too long to suspect her husband. She promptly replied that he was 'as pure as the sun.' I then told her, if she would give me her confidence, I would protect her—if not, would lay the matter before her husband (who was not supposed to be aware of the nature of the disease). Then came tears, reproaches, and finally, in a tempest of womanly indignation, she bade me leave forever. I left disheartened and in disgrace, but before I was well on my way down-stairs I was recalled, and amid tears and sobs she confessed. A yachting excursion—an unexpected night at sea—exposure with an old lover; and all this about three months before. If this were



not sufficient, a letter subsequently received from him full of regret that he had discovered himself syphilitic, and inquiring if he had been so unfortunate as to have communicated the disease to her."

The subsequent progress of this instructive case was not peculiar. The lady made an apparently complete recovery in about a year. After another year she again became pregnant, was delivered of a healthy child, now living, but died of puerperal fever the third week after her confinement.

In carefully reviewing this history, it will be observed that, while it is no exception to the rule that tertiary lesions are not contagious, it will show how easily they may achieve the credit due to the active manifestations of syphilis.

Our next lesson will be regarding

#### THE PROGRESS OF THE SYPHILITIC INFECTION.

The term *CONTAGION* has been used to designate the act by which, through cell contact, the syphilitic influence is conveyed from a diseased to a healthy person.

By means of the influence thus communicated, proliferation and accumulation of degraded cells at the point of original contact (or inoculation) are claimed to result in the establishment of the initial lesion of syphilis, or *chancre*, in its various forms.

The course of the disease beyond this point is indicated, *a priori*, by the known fact\* that all integumentary and cellular tissue are pervaded by lymph-spaces and channels, which lead, more or less directly, into lymphatic vessels; and that the lymph-current is constantly flowing from the tissues toward the lymphatic vessels and the glands in which they terminate.

Therefore a degraded germinal cell (syphilitic) introduced into the tissues (as by an inoculation), unless carried directly into the interior of a blood-vessel, must (itself, or its vitiated descendants) of necessity sooner or later be carried along by the lymph-current to and into the gland of connection.† All clinical observations confirm this view. First, in the discovery of indurated lymphatic vessels, leading from the point of inoculation to the gland in connection. Second, by the subsequent enlargement and induration of such glands. Third, their acceptance as a necessary sequence of the inoculation, and as positive proof of the nature of the disease.

The process through which the syphilitic influence thus gradually advances, and finally invades the general system, is termed the process of *SYPHILITIC INFECTION*.

The progress of the *syphilitic infection*, from the date of its *genesis* at the point of inoculation to its characteristic appearance in the glands nearest the point of inoculation (the glands of connection), varies in different persons, from causes not thoroughly settled, but which are indicated in note following Lesson II.

The degraded cell-elements, then, effecting an entrance into the substance of the lymphatic gland, are here detained by the peculiarities of the gland structure, and perhaps by other inhibitory influences (see Physiology of Syphilitic Infection) for a period varying in different instances from twenty to sixty days (see Physiology of Syphilitic Infection). This period is recognized by all clinical observers, and has been de-

scribed as the second incubation of syphilis. It is certain, however, that no syphilitic influence has yet been discovered in the general blood-current during this period, and there is sufficient reason to suppose that the diseased elements are confined to the glands of connection, and those intervening more deeply between these and the thoracic duct.\*

The glands of connection become gradually enlarged, apparently through the proliferation and accumulation of cells in their interior.

When the initial lesion is located upon the genital apparatus, on the glans or on the body of the penis in the male, or on the labiae or within the vulva in the female, the lymphatic glands of the groin become enlarged, so that, as a rule, several may be distinctly recognized by the touch, varying from the size of a small pea to that of a large bean. Sometimes these enlargements are apparently confined to the side corresponding with the initial lesion—sometimes to the opposite side; usually, however, the glands of both sides are more or less enlarged. Hard, nearly or quite painless, and movable, their *gradual accession within two or three weeks, after a suspicious venereal exposure*, is strongly indicative of syphilitic origin, without regard to the character of the *local lesion*. If this is present, and indurated, the syphilitic character of the trouble is no longer doubtful. It must, however, be borne in mind that glands enlarged through the influence of scrofula cannot be with certainty distinguished from those of syphilitic origin.

They are found in the same locations, and though usually less positively indurated, are still sufficiently so to prevent certain diagnosis. When the initial lesion is on the lips, or in the mouth, the submaxillary gland is affected. Wherever situated, it is always the *glands of connection* (i.e., those nearest to the seat of inoculation) which are involved. Such enlargements are called syphilitic  *buboes*.

The complete freedom from true inflammatory action, which has been shown to characterize the induration of the initial lesion of syphilis, and the lymphatic vessels in connection with it, is equally characteristic of the enlargement and induration of the associated lymphatic glands. When attaining sufficient size to interfere with freedom of motion of a part, or where, from any cause, they are subjected to undue pressure, a degree of tenderness may result. From the same cause, inflammation, and even suppuration, may supervene in highly scrofulous subjects. Such accidents, however, are exceptional, and do not materially lessen the diagnostic value which attaches to *recent and painless* enlargement of lymphatic glands.

\* NOTE.—A similar inhibitory influence exerted by the lymphatic glands in cancerous diseases is cited by Virchow in his "Cellular Pathology," Am. ed., p. 221, with the following explanation: "We can account for this by no other supposition than that the gland collects the hurtful ingredients absorbed from the breast, and thereby for a time affords protection to the body."

It has been suggested that if the disease were really so localized, prompt *enucleation* of the initial lesion and of the affected glands might prevent general infection. It must be remembered that the infective cells, each of which is potent to act as a starting-point for systemic infection, are not only present in untold numbers at the point of inoculation, but that (as shown by Bielschewsky's microscopic researches) the walls of the intervening lymphatic vessels are lined if not packed with them. Hence, any proposed surgical extirpation of the disease must imply the entire removal of all the lymphatic connections of the initial lesion and the glands of connection—a procedure not only without sufficient promise of benefit at this stage of the infection, but even at the earliest date after inoculation, the necessary ignorance as to the degree of implication of the lymph-spaces and vessels in the vicinity of the inoculation would, in all probability, render all such means of preventing the spread of the infective processes of uncertain value.

Early excision of the initial lesion may, however, be found to modify the intensity of the subsequent general infection. My own experience in nine cases of excision, during the past eight years, would warrant this inference.

\* Stricker's "Human and Comparative Histology," Sydenham ed., vol. i., pp. 367 *et seq.*

† NOTE.—"The wandering red blood-globules, mostly again return into the circulation through the lymphatics. The wandering white blood-corpuscles probably return into the circulation in the same way."—Wagner's *Manual of General Pathology*, Am. ed., p. 151.

The progress of the syphilitic infection, which has been steady and persistent from the moment of inoculation to the engagement of the nearest lymphatic glands, appears now to be arrested. Gradual increase in their size and density alone indicates the activity of the infective process, until, after a period (varying in different instances from twenty to sixty days), evidences of constitutional infection may appear.

Access from the surface to the general blood-current, through the lymphatic spaces and vessels, necessitates passage, first, through the gland in immediate connection; second, through any other glands or vessels which may intervene between them and the great lymph-channels; passage from thence into the general blood-mass is immediate.

Thus the delay between appreciable implication of the glands of connection and earliest evidences of constitutional syphilis is explained in accordance with known histological and physiological laws. Hence, it is only *after* a time sufficient for the passage of the diseased elements through the natural barriers, the lymphatic glands, to the general blood-channels, that systemic infection can take place.

With this view of the *progress of the syphilitic infection*, the interval between the date of inoculation and the introduction of the diseased elements into the general circulation may be appropriately termed the *INITIATORY PERIOD OF SYPHILIS*.

## Progress of Medical Science.

**DIFFUSION OF CARCINOMA BY THE NERVES.**—Dr. Colmiatti, who has already published important articles on the pathological histology of the nerves, presents in the *Revista Clinica di Bologna*, an interesting case illustrating his theory of the diffusion of carcinoma by the nerves.

The patient was a man forty years of age, who had previously enjoyed good health, but recently had been attacked with neuralgia of the left cheek, corresponding to the inferior molars. An examination showed that there was a considerable tumor on the inner side of the gum. This tumor, the size of a hen's egg, was removed, and at the same time disarticulation and resection of the jaw as far as the left canine tooth was practised. Though the wound healed readily, the severe neuralgia continued.

The tumor proved to be a carcinoma. It involved the inferior dental nerve, which was followed for more than two centimeters, and into its canal in the bone. There was connected with the tumor and the bone an enlarged and indurated lymphatic gland, belonging to the suprahyoid region. This was also removed. The posterior portion of the nerve, when removed from the canal, was found considerably enlarged.

According to the theories of Robin and Key and Retzius, the nerves contain two species of connective tissue: the *epi-neurium*, and the *peri-neurium*, with its appendix the *endo-neurium*. The *epi-neurium* connects the bundles which form all nervous trunks, and appears to envelop them; the *peri-neurium* and *endo-neurium* form integral parts of each bundle. Their connective tissue consists of small membranes, within which are the so-called *peri- and endo-nervous lymphatic spaces*, but which have nothing to do with the common lymphatic system. These small membranes which, like the nerve-bundles, maintain a cylindrical form, are arranged in a circular manner at the periphery of the bundles, and are connected and held together from

place to place by membranous lamellae. Hence these *peri-nervous lymphatic spaces* are multiple and always communicate one with another. The membranes constituting the *endo-neurium*, which arises from the *peri-neurium*, pass around each nerve-fibre in such a manner as to form circumscribed *endo-nervous lymphatic spaces*, which are also continuations of the *peri-nervous spaces*. The ultimate arrangement of the above-mentioned membrane is such, therefore, that every fibre is suspended in a lymphatic space. In the case mentioned we have to take into consideration the lymphatic current which flows in the special canals of the *peri-neurium* and the *endo-neurium*, a current which is in direct communication with the spinal and cerebral subarachnoid spaces, and, by means of these, with the ventricles of the brain, through which the carcinoma cells may pass indefinitely.

The author states that he saw in the section of the dental nerve an abundant infiltration of the carcinoma cells, which were diffused through the *peri-nervous* and *endo-nervous spaces*. He also states that this is the second case in which he has found the carcinoma diffused through the inferior dental nerve. The diffusion of the disease was by the nerve solely.—*Lo Spperimentale*, March, 1878.

**THE USE OF ETHERIZED COD-LIVER OIL IN PHTHISIS.**—At a meeting of the Therapeutical Society of New York, held April 12th, a preliminary report was offered on the combined use of ether and oil. In 1868 Dr. Balthazar Foster, of London, introduced this subject to the profession. Basing the theory of the use of ether upon the experiments of Claude Bernard, who showed that ether increases very markedly the secretion from the pancreas, he sought to apply these facts in the treatment of phthisis. The known defective assimilation of fats, which is a leading condition in the dyspepsia of phthisis, depends upon the feeble action of the pancreas; consequently any agent that increases the pancreatic secretion is a valuable agent in the treatment of the disease. Bernard also found that ether promoted absorption.

The report covers thirty-one cases in which ether was given in connection with cod-liver oil. In twenty-six of them the oil was well borne, while in five it was not. In the twenty-six cases in which the oil with the ether was well borne it is noted in twenty-four that either pure oil or an emulsion of oil had been tried and had disagreed. In one case plain oil was found to agree better than the mixture with ether, and in another case the etherized oil did not answer so well as an emulsion with the hypophosphites. In the majority of the cases the oil and ether were taken together; in three it could not be borne with the oil, but was taken satisfactorily afterwards—in fifteen to thirty minutes. A source of fallacy was noted by the committee in making their report upon etherized oil in comparison with ordinary oil. It was this: much of the latter gets rancid, and so causes nausea and perhaps diarrhoea. Ether prevents rancidification, so that it was difficult to know how far the good effects of the ether were due to this property alone. The brief limit of time over which the observations extended did not allow of any conclusion as to the comparative advantage of this particular preparation over others in arresting the progress of the disease.

The dose of the oil was from two drachms to half an ounce with ten to twenty minims of ether, three times a day. Both oil and ether were given in various combinations, so as to be as palatable as possible.—*N. Y. Med. Journal*, July, 1878.



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## THE PRELIMINARY MEDICAL COURSE AT JOHNS HOPKINS.

THE lately published prospectus of the preliminary medical course at the Johns Hopkins University, which is to be initiated towards the end of the coming September, is quite a commentary upon the present prevalent mode of teaching medicine. If the above-mentioned seat of learning at Baltimore has gained a reputation for any one thing in particular at this early stage in its growth, it is for doing thoroughly whatever it undertakes. The excellence and completeness of its academical and scientific courses are already matters of history. The trustees of the medical school and hospital have certainly not fallen behind their brother managers in setting up and promulgating a high and thorough standard of education preliminary to the study of medicine.

The proposed preliminary course is to be given, as above stated, late in September of this year. The object of this course, according to the prospectus, is to give the student a "liberal education, but one rather scientific than literary, and including a thorough knowledge of the structure and functions of the human body in health." The student will be prepared at the completion of this course to enter upon the study of the regular branches of medicine. The preliminary course will extend over three years, but students who pass a successful examination upon the studies prescribed for the first year will be allowed to enter at once upon the studies of the second year. Students matriculating in the above course, who are not already students of the university, will be obliged to pass an examination in elementary mathematics, algebra, and geometry, and to render translations from Cæsar and the *Æneid*. Excellency in spelling and conformity to the rules of English grammar are to be a *sine qua non* of success in the examination. The course for the first year consists of French, Ger-

man, and drawing (free-hand), with lectures and laboratory work in experimental physics, elementary mechanics, and chemistry. The curriculum for the second year includes chemistry, general biology, an elementary course in comparative anatomy and zoölogy with dissections, an elementary course in physiology and histology with laboratory work, human osteology and the anatomy of the ligaments and joints, and logic. The studies of the third year are to be human anatomy, an advanced course in physiology and histology, the elements of embryology, and psychology. An examination will be held at the end of each year upon the studies pursued during that year. Graduation in the above-mentioned branches will entitle the student to entrance upon the studies of the medical school without further examination. The preliminary course, however, is "*designed to meet the requirements of students who wish to obtain a sound scientific basis for their professional studies, whatever medical school they may afterwards select.*" A formal diploma is to be granted to the graduate of the preliminary course. Though still *sub judice*, it is proposed that this diploma shall be that of Bachelor of Medicine.

To go somewhat more into details in explanation of the several special courses, the course in physics, extending through the first year, will consist of weekly recitations, lectures, and laboratory exercises. A morning of each week is to be set apart for laboratory work. This work has two ends in view: 1st, to give the student a clearer insight into the subjects studied, serving as a test of progress to both teacher and learner; and 2d, to enable him to acquire a familiarity with the use of apparatus. The manner of conducting the exercise will be as follows: with the enunciation of a problem, each student will receive the apparatus necessary for its solution, and will be required to make the series of observations which, with their discussion and reduction, he is to submit to his instructor. These results will then be criticised and returned. Those who are aiming at the profession of medicine will thus grow familiar with physical instruments and methods which are of prime importance in physiological researches—for example, thermometry, the laws governing the phenomena of electricity, of light, etc.

In the course on chemistry both organic and inorganic chemistry will be treated as thoroughly as possible; an examination upon the matter considered will be held after each two lectures. The principal work will be done in the laboratory. A knowledge of the general principles of chemistry must be had before entering the chemical laboratory. Regarding the nature of the chemical course in the laboratory, the prospectus says: "At first the student will have to make himself acquainted with the action of the various classes of substances upon each other, by actual observation at the laboratory desk; and his knowledge will be constantly tested by means of appropriate prob-

lems given him for solution. After completing this course, he will be enabled further to test his acquirements by taking up a course of qualitative and quantitative analysis. At intervals during the time he is engaged in this work, he will be required to prepare some chemical compounds in a pure state, so that his ideas concerning chemical action may become enlarged, and his knowledge of the special properties of the different classes of compounds more definite and detailed."

The course in biology is to consist of (a), *general biology*, preliminary to the study of anatomy and physiology. The student will be taught how to dissect, and the use of the microscope, "and will learn, in a general way, the forms assumed and the actions performed by living things." With this end in view, certain types, such as the ameba, vibrio, etc., will be minutely studied. Under this head also will come the consideration of homology and analogy. At the termination of the above course, the subject (b) of *animal morphology* will be considered. The characters and affinities of each of the main groups of the animal kingdom will be systematically investigated. Then will come (c) animal physiology and histology, with special reference to the human body, viz., the nutritive medium, the supporting tissues and organs, the contractile tissues, the nervous tissues, etc., etc. In connection with this course students will be taught the preparation of specimens for microscopical examination. They will also be required to perform the simpler physiological experiments for themselves (d), *human osteology*, including the form, development, and general arrangement of the skeleton. The third year will be devoted to (e), *human anatomy*, with lectures and demonstrations on the "anatomy of the muscular, vascular, nervous, and other systems of the body; and on the regional anatomy of certain important parts." Later in the year comes (f), *an advanced course in physiology and histology*, consisting of: (1), the physiology of the senses; (2), the physiology and histology of the nerve-centres; (3), a course of six lectures upon the chemistry of nutrition; (4), a course of lectures upon histogenesis (intended mainly as a foundation for the study of pathological anatomy). The year ends, finally, with (g), *the elements of embryology*.

The expense of tuition will amount to \$80 per annum, together with small charges for laboratory material. Free scholarships are provided for those young men from Virginia, Maryland, and South Carolina who need assistance. The cost of living in the city of Baltimore is in the neighborhood of \$35 per month, including lights, fuel, room, etc. The term begins on the 24th of September, 1878, and ends on the following June. There are short vacations at Christmas and Easter. The instruction in chemistry will be given by Professor Ira Remsen, and that in biology by Professor Newell Martin and his assistant, Dr. William K. Brooks.

We have given the above somewhat extended notice of this preliminary medical course for the purpose of calling attention to its exceeding usefulness and great thoroughness. There is a very generally expressed demand nowadays for an accurate knowledge of anatomy, physiology, histology, and chemistry on the part of the student of medicine. The great defect of our past systems of medical education has lain in the fact that the practical branches of medicine have been pushed to the exclusion of the theoretical departments; the superstructure developed, and the groundwork neglected.

We hope that the wise example afforded by the trustees of the Johns Hopkins Medical College will be speedily followed by our other great medical schools—Bellevue, Harvard, and the University of Pennsylvania. Let them establish preliminary courses of medical education, and require of their matriculates the knowledge which the Johns Hopkins School will strive to inculcate. We look with peculiar approbation upon the institution of the degree of B.M. as a requisite for the regular matriculate in medicine. The nearer our medical education approaches to the European models in this direction, the freer shall we be from quackery and humbug, and the better able to occupy our proper positions.

#### THE NATIONAL QUARANTINE REPORTS.

THE manner in which the provisions of the National Quarantine Act are being carried out by the Supervising Surgeon-General of the Marine Hospital Department is not only very satisfactory for the present, but very encouraging for the future. As yet the system by which the reports are gathered, not only from different parts of the United States, but from various foreign countries, is so far from being developed that it may be said to be in its incipency. Still, any one who has read the weekly reports as published in this journal can hardly be too sanguine as to the elaboration of the idea which they embody. The beginning is an excellent one, and foreshadows a usefulness as a bureau equal to that of the Signal Service. They are both founded on a somewhat similar plan, and what one has accomplished in the way of systematizing weather reports can be done by the other in heralding the march of epidemics, and in furnishing trustworthy accounts of the sanitary condition of different localities. We have no doubt that experience in gathering and disseminating the required information will rapidly develop the possibilities for even increased usefulness of the bureau, and place the profession and the country under renewed obligations to the author of the law, who is now its efficient administrator.

#### JOURNAL PRESCRIBING.

WE are also constantly appealed to by outsiders for medical advice through the columns of this journal, that in the way of a general answer we wish to make



a few remarks. We do not believe in dispensing advice by wholesale, as every case must be treated on its individual merits. No patient can be intelligently prescribed for unless he can be actually seen, and no one is better qualified to act under the circumstances than some trustworthy and well-educated local practitioner. To the latter we are perfectly satisfied to leave all so-called difficult cases, with the firmest conviction that the best will be done for them that is possible under the circumstances. Hence those who persist in asking for medical advice through our columns, do so at the expense of both time and hope.

## Reviews and Notices of Books.

**ANTAGONISM OF ALCOHOL AND DIPHThERIA.** By E. N. CHAPMAN, A.M., M.D., formerly Professor of Materia Medica and Therapeutics, and Clinical Midwifery, etc.; recently Professor of Obstetrics and the Diseases of Women and Children, in the Long Island College Hospital. 16mo, pp. 98.

THIS is a work which every physician should peruse carefully. Although we have had diphtheria discussed extensively of late, a perfect horde of remedies recommended, and bacteria treated of *ad nauseam*, the investigations of those who hold that the disease is *primarily local*, in spite of their elaborateness, fail to evolve means for the prevention and lessening of its mortality. The *local* theory has fairly turned the heads of the majority of the profession, so much so that when "general blood disease" is mentioned the *téméraire* is almost looked upon with scorn. But there are some wise and bold men who dare to treat their patients upon the theory of *primary general infection*, and Dr. Chapman is one of these. But Dr. C. not only employs the supportive treatment in general, but relies upon alcohol as the *antidote* to diphtheritic poison, as the stimulant and *force-conserving agent par excellence* in this disease. In this he is supported by M. Sanné, who, however, looks upon alcohol as "*le plus sûr de tous les antiseptiques données à l'intérieur*." Dr. C.'s views were first published in 1863 (*Boston Medical and Surgical Journal*, Feb. 5th), but unfortunately did not receive the attention they deserved from the profession.

As set forth in that paper, they were briefly these: 1. That diphtheria is a blood disease, tending to *rapidly destroy the vitality of that fluid*. 2. That the exudation is a local manifestation of a general dyscrasia. 3. That the fever is symptomatic. 4. That alcohol, promptly and *liberally* given, is an *antidote* to the poison of diphtheria, a febrifuge and sedative, and a prophylactic as well as a curative agent. 5. That it should be given as early as possible, and during even the so-called inflammatory stage. 6. The *cause* of the disease is a state of the air that impairs the vitality of the blood, and not an animal or vegetable poison.

A reiteration of these views, with clinical data to support them, was made before the Kings County Medical Society, Oct., 1877, but with very little or no effect. The Doctor lays especial stress upon giving alcohol early, before the blood becomes so devitalized as to be incapable of regeneration. He regards it as the remedy for complications. Out of 125 cases, he

only lost one. He records quite a number of clinical cases, lays down rules for the use of alcohol in cure and prevention, and gives some very interesting facts on lime as a food-assimilator, as well as practical hints on drainage, in this little book.

The experiments and conclusions of Binz, Dupré, Anstie, and others confirm the clinical data of Todd and Graves, and the later ones of Chapman. We feel the profession at large should heed these facts, individually test this most potent remedy, and not allow its prejudices or preconceived ideas of the nature of the poison of diphtheria to interfere with an honest attempt to lessen the mortality of this frightful malady.

**AN ESSAY ON RECTAL MEDICATION.** By WILLIAM BODENHAMER, A.M., M.D. 3 Illustrations; pp. 58. William Wood & Co., New York, 1878.

THIS is another of those handsomely printed and bound, though superfluous volumes, which are issued these later days, a credit to the publishers, but of little real need to the profession. Students or the profession are not in want of a special treatise upon the manner of giving enemata, since most works on medicine and surgery do this. Nor is an historical sketch of enemata, or mention of the various channels through which medicines can be introduced into the human system, required. These considerations, however, occupy the greater space of this work. Dr. B. rather magnifies the matter when he claims (p. 17) the giving of an enema to be an operation of "much delicacy, and one which may be attended by danger, if not guarded by proper precautions." However, being such a *delicate* operation, he refers the reader to his work on "The Physical Exploration of the Rectum" for the directions for introducing the recto-colonic tube, thereby entailing the expense of a new purchase, when full directions should be found in the present work itself. The author places too little stress upon the efficacy of suppositories, which, in our hands, have the first place in the treatment of enteric inflammations. Rectal absorption and recto-colonic products may be found in all standard works on physiology, and scarcely need reproduction, although noted *in extenso* in the work under consideration. Dr. B. seems wholly oblivious to the existence and function of the great sympathetic system when he says, on page 28: "... these nerves [of the cerebro-spinal axis] perform other functions more vital than those merely of supplying volition and of bestowing sensibility." Hypodermic alimentation is called barbarous (p. 32). We do not anticipate general concurrence with the statement that, as a general rule, one-third the quantity required by the stomach will act more powerfully *per rectum*. In considerable experience with suppositories and enemata we have always found at least *double* the quantity of morphia, opium, etc., is required *per rectum*. Enemata of quinia and balsam of copaiba as a regular treatment of malarial fevers and gonorrhœa, respectively, are not likely to become "the rage" at present. The same may be said of tr. iodini enemata for leucorrhœa (!). Savory & Moore's gelatine disks seem a little over-nice and expensive for enemata (p. 37). A journal article giving a résumé of the author's views, as contained in Section V. of this book, would have sufficed all practical and theoretical needs. Since the author is quite careful with his Latin, let us suggest his perusal of *magnesia* (for *magnesia*), p. 21; *aqnos* (for *aqnos*), p. 34; chloral hydrate (for chloral hydrate), and *vaccina* (for *vaccina*), p. 35; *atherea* (for *atherea*), and *vitellum* (for *vitelli*), p. 36. M. Mialhe is spelled *Mailhe*.

PRACTICAL CHEMISTRY FOR MEDICAL STUDENTS. By M. M. PATTISON MUIR, F.R.S.E., Professor in Chemistry, Gonville and Caius College, Cambridge. 18mo, pp. 56. London: Macmillan & Co., 1878.

Is intended to arrange facts and methods in inorganic qualitative analysis so the student may thoroughly learn, during his necessarily limited course at college, what he must acquire in order to obtain his diploma. Pages 7 to 18 (inclusive) give general explanations of tests and the manner of making them. Metals and non-metallic radicles are arranged according to groups, in this way impressing the student with a more complete understanding of the various tests than any other arrangement could possibly do. Both the dry and wet tests are given, nicely arranged as tables under the head of each metal, salt, or acid. The last table in the book gives tests for brucia, morphia, strychnia and quinia, and a full index closes this valuable little volume.

We especially commend it to students as a valuable résumé of the analysis of organic acids and inorganic substances which are used in medicine, especially serviceable for laboratory use and reference.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, June 12, 1878.*

DR. J. C. PETERS IN THE CHAIR.

#### CASE OF TYPHOID FEVER—SUDDEN DEATH AT END OF FIRST OR BEGINNING OF SECOND WEEK—POST-MORTEM REVELATIONS.

DR. B. ROBINSON presented a specimen of intestine, with the following history: C. C., æt. 18, piano-maker, was admitted to the Penitentiary Hospital on Blackwell's Island, May 7, 1878. For a week or more patient had suffered from a feeling of general prostration, headache, chilly sensations, and loss of appetite. Responses to questions were obtained with difficulty, on account of mental obtuseness. During the night aberration of intelligence took the form of incoherent muttering, and the patient made several attempts to get out of bed and walk.

On May 9th, two lenticular rose spots were discovered over the upper portion of abdomen. These had disappeared by the following morning, but were replaced, on May 11th, by several other spots of like appearance. The abdomen was swollen and tympanitic, and upon moderate pressure of the right iliac fossa it was found tender, and gurglings were produced. Stupidity and prostration augmented; no albumen in urine; no cough; respirations slightly accelerated; pulse 112, markedly disrotic in the right wrist, scarcely perceptible in the left. Temperature, A.M., 101 $\frac{1}{4}$ ° F.; P.M., 102 $\frac{1}{4}$ ° F. Some watery diarrhœa; muscular twitchings of the hands and forearms. B. Quinine, digitalis and moderate quantities of stimulants were ordered.

On May 10th, 11th and 12th the patient's pulse continued fluttering, and at times there were notable intermissions. The temperature remained about the same; there was complete prostration. On May 13th, the heart ceased to beat at an early hour.

Autopsy by Dr. E. A. Maxwell, twelve hours after death, revealed the following conditions of organs: Brain and lungs deeply congested. Heart: right

ventricle collapsed, flattened, and indented on outer surface; left ventricle firm. On opening, cavities empty; muscular walls of normal thickness, moderately firm, reddish yellow color and have shining, waxy lustre. Microscopical examination (by myself) showed moderate granular degeneration of muscular fibres in certain places; in others the striae, though pale, are still perfectly visible; no vitreous change anywhere. Mesenteric glands enlarged, and on section some were found red, mottled with yellowish streaks and hemorrhagic points.

Spleen somewhat enlarged and softened.

Kidneys congested and slightly increased in size.

Intestines: moderate swelling of agminated and solitary glands of lower portion of small intestine. Increase in size of the glands is most marked in lower two or three yards of small intestine, decreasing as you go upward, while in upper portion of small intestine there is scarcely appreciable swelling. The second Peyer's patch above the ileo-cæcal valve shows two or three ulcerated glandules. Cæcum and ascending colon show a few enlarged solitary glands.

Muscles, voluntary, are of deep reddish color, dry.

Neither height of fever, apparent degeneration of heart-fibre, nor sudden cerebral anemia, are evidently accountable for this death. What is the explanation of it? The termination is additionally interesting, owing to the following statement of Liebermeister: "Death rarely happens as early as the second week in uncomplicated cases, and I do not remember ever to have observed a case of death in the first week of typhoid fever." Towards the end of the third, or in the beginning of the fourth week, deaths from typhoid fever are, as we know, not infrequent.

DR. PUTNAM-JACOBI asked how much digitalis had been administered.

DR. ROBINSON stated that no special directions had been given to the house-physician, but his (Dr. B.'s) practice was to prescribe the drug in small doses.

DR. PUTNAM-JACOBI remarked that the question was a pertinent one because of the difference of opinion in regard to the advisability of giving digitalis to such patients. Some authors claimed that in certain doses it acted as a heart-tonic, while others believed that it caused heart-paralysis.

DR. LOOMIS remarked that the intestines did not present the appearances of being in the second week of typhoid fever.

DR. ROBINSON thought that, inasmuch as some of the patches were ulcerated, a week must certainly have elapsed.

#### EPITHELIOMA OF THE PENIS.

DR. POST exhibited an epithelioma of the penis, removed by amputation of that organ from a man aged sixty years. The disease existed for something more than a year, and the curious fact connected with it was, that the patient's father had suffered from it in the same locality. The growth involved the glans penis, was surrounded by a phimotic prepuce, and the orifice of the urethra was so compressed that urine was passed with difficulty. The operation was performed two months before by bringing the glans forward and removing it with one sweep of the catling. The flaps of integument were secured by sutures to the urethra. The case made a good recovery.

#### REMOVAL OF CANCER OF BREAST, AND WOUND OF AXIL-LARY VEIN.

DR. POST also exhibited a large cancerous breast from a Swedish woman, aged forty-six years. There was an interesting feature connected with this case,



which was not detected until the operation, and that was an infiltration of both pectoral muscles, and an involvement of the glands of the axilla. It was necessary to remove the greater portion of the great pectoral, and to divide and remove a small part of the lesser pectoral. In attempting to enucleate an extension of the disease high up in the axilla, the axillary vein was punctured. The vessel was promptly secured by a double ligature. The axillary artery was exposed in the dissection to the extent of two or three inches. The growth was found to extend so deeply that it was not considered prudent to follow it any farther. The patient bore the operation very well.

Dr. MASON, in connection with the case of cancer of the penis, stated that he had performed a similar operation nearly two years ago, and that there had been no return of the disease.

Dr. WEIR stated that the immunity from a return of cancer of the penis was considered to be about three and a half years. In regard to Dr. Post's second case, he said he had a somewhat similar experience in wounding the vein. He, however, secured the bleeding point with a lateral suture.

Dr. MASON also in this connection referred to a wound of the axillary vein in which he also applied the lateral suture. In reference to the extension of the disease in the axilla, he related the case of a woman who came from the country in the morning and was operated upon in the afternoon. It was found impossible to enucleate the mass from the great vessels, and it was simply tied with a string ligature and the stump was left. That patient died of pyæmia six days afterwards.

Dr. POST stated that his son, Prof. Geo. E. Post, of Beirût, Syria, had in the course of a removal of a tumor of the neck divided the primitive carotid, jugular vein, pneumogastric nerve, great sympathetic, and several branches of the cervical plexus. The patient did not, however, die on the table, but after a few weeks returned to her home. The disease returned six months afterwards. Dr. Post also stated that he once removed a portion of the femoral vein and artery with a tumor of the thigh.

Dr. BRIDGON stated that, in the removal of a large myxomatous tumor of the chest, he had completely divided the axillary vein. The hemorrhage was arrested without any trouble.

Dr. SATTERTHWAITE asked if any of the glands above the axilla, in Dr. Post's case, were involved.

Dr. POST had not noticed any.

Dr. SATTERTHWAITE remarked that the case presented itself to him at the dispensary, when he noticed that a chain of ganglia above the clavicle were involved.

#### LOCAL PERITONITIS OF STOMACH—MULTIPLE ABSCESSSES OF THE LIVER—PYÆMIA.

Dr. LOOMIS presented the stomach, intestine, mesentery and liver taken from a patient æt. 32 years, who was admitted into Mount Sinai Hospital, April 12th. He stated that up to ten days before his admission he had always been well, when he was seized with a pain in the epigastrium, preceded by chill and followed by fever. These symptoms lasted for three or four days. He then recovered sufficiently to attend to his business. On the night of April 12th he was again seized with the pain when he entered the hospital. His pulse was then 84, and his temperature 103.5° F. The next day, when Dr. L. saw him, he complained of most intense pain midway between the xiphoid cartilage and umbilicus. This pain was not increased on pressure, but the abdominal muscles in that situation were so

rigid that it was impossible to determine the condition of any of the underlying viscera. The lower portion of the abdominal walls were naturally yielding. His countenance had an anxious expression, and he had an emaciated appearance. There was nausea and occasional vomiting. Up to April 19th his temperature ranged from 103° to 104°. During this time he was treated with morphine to relieve the pain, and quinine for the fever. The temperature was, however, not controlled. His pulse was regular and of good character. It was looked upon as a case of malarial fever, with a possibility of the addition of peritonitis over the region of the stomach. The pulse was, however, against the peritonitis, as was also the temperature. On the 19th his temperature fell without apparent cause to 100°, and remained in that neighborhood (not exceeding 102°) until May 6th. His pulse ranged about 84. There was no change in the general symptoms, no excessive tympanitis, but the rigidity in the upper portion of the abdominal walls remained; besides, there were no evidences that pressure increased his pain, and the diagnosis was accordingly held in abeyance. At no time during his stay in the hospital did the patient have chills. When under the influence of morphine his surface was moist. He gradually emaciated, and died from asthenia.

At the autopsy all the organs, save those presented to the Society, were found healthy. The lesser curvature of the stomach was the seat of limited peritonitis, and was firmly adherent. Corresponding to this situation, on the inner surface and underneath the mucous membrane, were small abscesses. The small intestines were bound together by adhesions, and throughout the mesentery there were small abscesses. Some of the vessels in the neighborhood were plugged. The liver contained multiple abscesses, and in some places there were infarctions.

In conclusion, he remarked that the absence of chill, low temperature for the first week, and low pulse without sweating, would hardly lead to the suspicion of multiple abscesses of liver, with peritonitis and pyæmia, and the case came to the autopsy without a diagnosis.

#### EXTRA-CAPSULAR FRACTURE.

Dr. STIMSON presented a specimen of extra-capsular fracture of the femur, which occurred in a woman eighty-two years of age. There was a great deal of swelling of the part, a great deal of ecchymosis, and the shortening was about one inch. He considered the case as rare, occurring in a person of the age mentioned.

Dr. POST remarked that intra-capsular fracture scarcely ever occurred under fifty years of age, while extra-capsular fractures might occur at almost any age. In regard to the amount of shortening in these cases, he stated that when there was more than an inch it was likely to be extra-capsular fracture; if less than an inch, intra-capsular.

#### OSTEO-SARCOMA OF KNEE-JOINT—AMPUTATION OF THIGH.

Dr. BRIDGON presented a specimen of osteo-sarcoma of knee-joint, for which he had performed amputation, and read the following history from notes furnished by Dr. Alberto Lacayo, house-surgeon:

John Kittrick, æt. 17, New York. Admitted to Presbyterian Hospital, service of Dr. Bridgdon, April 5, 1878. Patient's mother suffered from rheumatism of a chronic character; other members of the family are healthy. During childhood he had scarlatina. When he was eight years old he had an attack of articular

rheumatism for two months. Six months ago he had another attack for three months. Ten weeks ago he was taken with pain in the knee, the parts soon becoming swollen.

On admission, patient an anemic, emaciated looking subject. Appetite good. Right knee is red, swollen, and very tender to pressure. The appearance of the parts involved is peculiar: the ends of the bones entering into the conformation of the joints presents a globular form such as is met with in articular osteitis. The swelling does not apparently extend higher than the limit of the capsule beneath the quadriceps; the joint is not distended with fluid; in fact, the patella lies in close contact with the articular end of the femur, and cannot be floated by pressure on the capsule above or laterally. There is a sensation of elasticity that may be regarded as due to succulence of the periarticular tissues, and the case is diagnosed as one of inflammation of the articular ends of the bones, or possibly of tumor albus developed in a lad the subject of rheumatic diathesis; the swelling remained perfectly symmetrical but increased in size, and about the 24th of April fluctuation was made out. April 27th an aspirating needle was introduced, with negative results. Doubt now existing as to the real nature of the case, a consultation was held, and it was considered proper to make free incisions into the joint.

May 4th.—The appearance of the joint is unchanged, forming a large, globular, and somewhat resisting swelling. Manipulation conveys the impression that much of the increase in size depends upon epiphyseal expansion, involving even the lower end of the diaphysis of the femur, but that the larger portion is periarticular and due to succulence of tissues outside of the capsule, and this proliferation of cell-elements gives a deceptive sense of fluctuation, most perceptible on either side of the patella. The latter bone lay in contact with the condyles, and it was thought that movement elicited an obscure grating.

Patient being under the influence of ether, and the spray directed over the knee, an incision four inches long was made on either side of the patella, it being necessary to carry those cuts through an inch of infiltrated tissue before the joint was opened. On inspection, the first thing that attracted attention was the presence of two layers of material resembling decolorized heart-clot. These lay between the articular surfaces, in the position of the ligamentum mucosum. At first they were supposed to represent this structure. On close examination, however, they were found to be layers of new growths, probably exudation products. Each was about two inches in length and three-quarters of an inch in width. The cartilages of incrustation were intact, save at one point on the inner border of the internal condyle. Here the cartilage was encroached upon or replaced by a small, fleshy growth, which was apparently advancing in the form of a narrow crescent over the surface of that portion of the articulation. The oldest portion of this structure, that nearest the circumference of the cartilage, was of a light flesh tint, but the advancing edge was minutely scalloped, arborescent, and vermilion in hue, resembling in some respects a pterygium creeping over the surface from the periphery to the centre. It was not an overlying false membrane, but most probably inflammatory conversion of the cartilage.

Drainage-tubes, traversed by horse-hairs, were introduced transversely above and below the patella. The limb was put up antiseptically, and supported on a plaster-of-Paris gutter reaching from the tuber ischii to the middle of sole of foot.

For the first two weeks after the operation the wound was coated with a gelatinous material similar to what was found in the joint, and in the middle was a dark, thick blood-clot. After this material was cleared away, granulations appeared. These were very red, and bled easily with the slightest pressure. Granulation was accompanied by a free discharge of pus.

About the third week after the incisions were made the patient began to fail very rapidly in strength, did not sleep well at night, suffered pain, appetite was very poor, and the knee was steadily increasing in size and becoming more tense—in fact, he began to suffer from hectic, pulse averaging 120 and temperature 102°, and a second consultation condemned the limb.

May 30th.—The limb was amputated about the middle of the thigh by long anterior and posterior skin-flaps, circular through the muscles. The vessels were tied with catgut ligatures, flaps brought in apposition by fine, carbolized silk sutures, and the stump dressed antiseptically. Patient was in a state of shock for about six hours after the operation. He rallied from it, however, without any further unpleasant symptoms.

June 3d.—Since the amputation bloody serum is all that comes out through drainage-tubes. Patient had a chill; temperature rose to 105½° F. Large doses of quin. sulph. administered.

June 10th.—Temperature subsided under quinine. It has averaged daily about 100½°. Discharges are healthy. Appetite improved. General condition considerably better. There has been union, by first intention, of the greater portion of stump.

The following notes of the microscopic appearances were furnished by Dr. SATTERTHWAIT: On examining the knee, after a vertical section had been made through the femur and tibia, it was found that there was a growth surrounding the shaft of the femur, its upper limits being two and one-half inches above the articular cartilage. The extreme length vertically was six and one-half inches, the breadth five inches. In color it was white, mottled with pink. These whiter spots were generally found to be either bone or cartilage, while the pink was some form of sarcomatous tissue. Starting apparently from the periosteum, the fibres of which it was composed radiated out in a fan-shaped manner, as has commonly been observed in this class of growths. The cancellated tissue of the bone was nowhere broken through, and yet it was thinned opposite the attachment of the tumor, and the central portions of the bones were markedly condensed and of a yellowish white color, contrasting strongly with the sound bone, which was pink. Surrounding the tumor was a capsule which was composed of a soft, pulpy, almost gelatinous material. Microscopically the tissue was found to be made up of many of the various elements that belong to the connective-substance group.

The radiating fibres extending from the periosteum were either fibrous, cartilaginous, or bony; some parts in addition were myxomatous, while others contained cysts. The capsule of gelatinous tissue was fibrous tissue undergoing mucoid degeneration. The tumor should be classed among the periosteal sarcomata, and its recurrence may be expected.

#### MORBUS COXARIIUS AND EXSECTION OF HIP.

Dr. BRIDDON also exhibited the upper portion of the femur, removed for hip-disease. The following was the history of the case, also from notes by Dr. LACAYO: Harry Stadelberger, æt. 14. N. Y., school-boy; admitted to the Presbyterian Hospital, service of Dr. Briddon, May 27, 1878. With the exception of his father, who



died of phthisis, all the members of the family are healthy. When twenty months old, patient fell down stairs. About two weeks after, he began to suffer from pain in his right hip; the pain was constant, but severe at night. At the end of three months the pain ceased, to return during the spring and fall of the year only. These attacks would lay him up for about three or four weeks. About six years ago an abscess formed and discharged itself behind the joint; several small pieces of dead bone escaped with the pus. About a year ago another abscess opened just below Poupart's ligament. The limb has been gradually contracting from the commencement of the trouble. For the past three weeks his condition has been growing worse. The pain has kept him awake at night. Has lost flesh and his appetite has been failing.

On admission, patient appears to be healthy and strong. The deformity is very pronounced. As he stands, supported by his crutches, his foot in extreme extension touches only with the tip of his great toe; when flexed (the sole parallel with the floor) it requires six inches of blocks to support it. The pelvis is rotated on its axis, projected upward and backward, and there is scarcely perceptible motion at the coxo-fem. articulation. The thigh is fixed at a right angle with the trunk, only slightly adducted and inverted. Lumbar spine very much curved. Upper border of trochanter two inches and five-eighths above Nelaton's line. There are three sinuses: one below the outer extremity of Poupart's ligament, another in the neighborhood of the posterior superior spinous process, and a third one inch above the trochanter. Examination per rectum reveals no evidence of perforation of the acetabulum.

June 3d.—Resection was made by a long incision reaching from the sinus above the trochanter major and passing downward in the direction of the long axis of the bone for a distance of about four inches; the periosteum was separated with some difficulty as far as the trochanter minor. A chain-saw was then passed around and a transverse section of the bone was made immediately above the insertion of the psoas.

The head and neck of the bone were completely destroyed. The inner aspect of the bone removed presented an irregular concave surface, reaching from the digital fossa to the lesser trochanter; this surface was studded with nodular eminences and depressions, but was not carious; it was not covered by granulations; the depressions were filled with gelatinous material, but beneath this the bone was of a pinkish hue and dense in structure. The only points of caries were found on the anterior and posterior borders. At the point of section the bone was sclerosed, but otherwise healthy.

The acetabulum was entirely effaced, filled with new bone which projected above the surface in the form of prominent nodules. Some very small sequestra were found in the space between the bones, but they were so insignificant in size that they almost escaped observation.

Before the operation it was considered that, in addition to resection, it would be necessary to divide the resisting muscles; but no such interference was required, as the limb was easily brought into good position and secured in the wire cuirass.

June 10th.—Up to present date the lad's general condition has improved very much. He sleeps well and suffers no pain. The leg is perfectly straight, and about three inches shorter than its fellow. His temperature was  $101\frac{1}{2}^{\circ}$  the eve of the day after operation. Since then it has averaged  $101\frac{1}{2}^{\circ}$  daily.

#### ABSENCE OF RIGHT VENTRICULAR CAVITY—OCCLUSION OF PULMONARY ARTERY.

Dr. H. N. HEINEMAN exhibited a specimen of the above, with the following history:

Female, six months old, died June 2, 1878. Mother was subjected to considerable nervous disturbance during pregnancy. Immediately after birth, child became cyanotic, the cyanosis reappearing and disappearing suddenly, and being present nearly two-thirds of the time. Child was subject to convulsions, which were preceded by signs of pain apparently referable to the precordial region; the convulsions occurring as often as once in four or five days, as infrequently as once a fortnight, and averaging one a week. Two days before death the child passed some blood by the bowels. Child nursed well, though evidently never in good health.

Autopsy held June 4, 1878. Body was well nourished and weighed about twenty pounds. Lungs were in condition of chronic congestion, with nearly complete filling up of air-cells. The heart was normal in size, rather quadrilateral in shape, on account of an hypertrophied left ventricle. The cavity of the right ventricle was absent; only its normally thick muscular wall was found, which upon section showed at its upper portion the chordæ tendinæ of the tricuspid valves. The cavity of the left ventricle was normal. The pulmonary orifice and tricuspid valves were about half their normal size. The mitral and aortic valves were normal. Both auricles were dilated and the foramen ovale large and open. There was no conus arteriosus, and the pulmonary artery, which was small in size, was completely occluded at its origin from the ventricle; it was divided into two branches, the ductus arteriosus, which was of large size and pervious, being connected with the left branch; the first and second portions of the arch of the aorta up to the place of origin of the ductus arteriosus being considerably dilated.

The circulation was carried on as follows: the superior and inferior venæ cavæ emptied their blood into the right auricle, from whence it passed into the left auricle, thence into the left ventricle, and from here it passed into the aorta, a portion of the circulating fluid finding its way through the open ductus arteriosus into the lungs.

#### CASE OF CEREBRAL HEMORRHAGE WITH MILIARY ANEURISMS, AND ANEURISM OF THE ANTERIOR COMMUNICATING ARTERY.

Dr. AMIDON exhibited a specimen of cerebral hemorrhage, with the following remarks:

The true nature of miliary aneurisms and their connection with cerebral hemorrhage was first shown by Charcot and Bouchard in 1866.\*

The pathological process leading to the formation of miliary aneurisms is a periarteritis, while atheroma is an endoarteritis. According to them a chronic inflammation leads to granular and fatty degeneration, first, of the perivascular sheath, next of the adventitia, and in some advanced cases of the muscular coat. The adventitia being weakened, a gradual, uniform dilatation of the vessel produces a fusiform, or the rupture of the internal coats a sacculated aneurism. This aneurismal condition is rare under forty years of age (though cases have been seen at twenty), and is often accompanied by atheromatous arteries, hypertrophy of the left ventricle, and cirrhotic kidneys.

The aneurisms occur most often in the opto-striate

\* Archives de Physiologie, 1868. Three articles.

bodies and next in the convolutions, vary in number from two to one hundred, and, according to Charcot and Bouchard, are found in almost all cases of what they term the *cerebral hemorrhage disease*.

*Case.*—June 5th, at 4 P.M., an Irishman, aged sixty, was found insensible on the street.

There was complete relaxation on both sides of body, with abolition of reflex movements on the right side of the face and body. No spasms. No strabismus. Pupils equal and small. Well-marked areus senilis. The respiration was slow, regular, and not stertorous. Pulse 70, full, with high tension. Radial artery atheromatous to touch.

Temperature was normal. Twenty ounces of urine were drawn; its specific gravity was 1021, and it contained .7% of urea, estimating the normal at 2.9%. No albumen was detected. 10 P.M., six hours after onset of attack, the patient died rather suddenly.

Autopsy twenty-five hours after death: some eccentric hypertrophy of the left ventricle of the heart was found. There were villous vegetations (old) on the aortic valves, with atheroma of the valves and aorta. The capsules of the kidneys were quite adherent to the atrophied cortex. There was also some atheroma of the vessels at the base of the brain, and a small aneurism (size of bean) on the anterior communicating artery. The left lateral ventricle and the fourth were filled with clotted blood, while in the right lateral and the third there was fluid blood only.

Not being able to find the source of hemorrhage, the existence of miliary aneurisms was suspected.

Charcot's method of slow maceration being too long, a rapid process was tried, which proved very satisfactory. The brain, already much mutilated, immersed in a basin of very warm water, was agitated every two or three minutes with the hands, and the loosened particles of brain-matter washed away. In about twenty minutes there was left only the pia mater and cerebral vessels, which formed a beautiful arborescent mass when floating in the water. Looking closely, was seen small red specks floating in the water, anchored by a slender thread. These are the aneurisms with their afferent arterioles.

To show the fatty degeneration, specimens should be mounted in glycerine. To show the arterial and aneurismal coats, specimens should be stained with hæmatoxylin and mounted in balsam.

The aneurisms in the present case were thirty or more in number, situated mostly in the cortex. While most of the aneurisms were globular in shape and sacculated, some were elongated and fusiform. Their walls were simply adventitia, around and in which was a large deposit of fatty granules, and some large granular bodies, seemingly resulting from degenerated brain-tissue. Some of the aneurisms contained recently coagulated blood and other deposits of fibrin. The arteries everywhere showed advanced fatty degeneration of the perivascular and adventitia sheath, while the muscular tunic and interna appear normal.

DR. WEIR exhibited a so-called tuberculous kidney, removed *post-mortem* from a man who was run over by an ice-wagon, the wheel passing over the abdomen. He had sundry troubles with urination, which necessitated the use of the catheter for three months afterwards. He appeared to be well for a number of months, when a tumor formed in the region of the kidney, attended with much pain, which latter was relieved by a sensation of bursting, and a coincident discharge of pus in the urine. The patient was aspirated two or three times, and finally an incision was made directly into the tumor, causing the discharge of a cheesy material. Dr. W. was in favor of

extirpating the kidney, but the consultation decided to the contrary. For a month there was decided relief from pain, and a decrease in the discharge of the pus. Gastric irritation soon after showed itself, eventuating in a low grade of peritonitis, and death about two months after the incision.

A discussion ensued concerning the propriety of calling such kidneys tuberculous, and was participated in by Drs. Satterthwaite, Heitzman, Heinemann, and Abbe.

## Correspondence.

### ACUTE LEAD POISONING.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Cases of acute lead poisoning are so rare that I am induced to send you an abstract report of the following one that recently came under my care in this village:

J. F., æt. 51, Irish, hostler, intemperate, after a protracted debauch, took three ounces of lead acetate, stirred in a tumbler of water; went to bed and slept six hours. He awoke feeling tolerably well, was about the village during the day, and only suffered from slight colic.

I was summoned twenty-four hours after he had taken the poison, and found him pale; anxious; pulse 58, feeble; temperature 97° F.; abdomen tense and retracted. He had vomited three pints of fluid matter, containing blood and shreds of mucus; ejection black from change of acetate to lead sulphide. Emesis was encouraged by draughts of tepid water acidulated with  $H_2SO_4$  (3 ss. to Oij.), when vomited matter became clear 3 ij. magnesia sulphate were given, largely diluted.

Second visit, six hours after: Vomiting persistent, copious, without straining; prostration extreme; hands and feet numb; calves of legs cramped; pulse 50; no dejection; no urine voided since taking the lead; abdomen hard and nodulated; colic pains constant, particularly severe and burning at pit of stomach; general tremor of body; unable to stand because of vertigo; urgent thirst. Ol. ricini 3 ij., ol. tigllii 3 ij. were given at once, and acidulated water ( $H_2SO_4$  3 ss., aq. Oij.) ad libitum.

Third visit, four hours after: Bowels moved freely, dejected matter, similar to that vomited, plus small quantity of scybala; vomiting continued, though less frequent and in smaller quantity; colic but slightly relieved. Acid drink continued, and tr. opii. 3xx. hourly.

Fourth visit, four hours later: Bowels moved twice since previous visit; no vomiting; passed four ounces of highly-colored urine; blue line distinct along edge of gums; greatly prostrated; vigilant; delirious (potomania?). Treatment adopted at former visit continued with spts. frumenti 3 j. half hourly.

Fifth visit, four hours later: Free from pain; very feeble; perspiring freely; coherent; slept two hours since last seen. Opium and whiskey omitted.

After this improvement, though slow, was continuous, and ten days after first visit he was able to work again. During convalescence he had acidulated drink, an occasional stimulant with bland diet.

JOHN F. LUCK, M.D.

CLOSTER, BERGEN CO., N. J.



## New Instruments.

### A NEW CLINICAL FEVER THERMOMETER, WITH INDESTRUCTIBLE INDEX.

By W. R. LEONARD, M.D.,

NEW YORK.

The accompanying cut shows a registering clinical thermometer, which more nearly possesses the great requirement of an indestructible index than any other yet contrived for the purpose.

The contraction of the bore of this thermometer is so extremely minute as to obviate the necessity for any air speck whatever, and then no possible destruction of the index can take place, as an index is formed at every observation by this peculiar contraction, itself cutting off the entire column above it from the bulb portion below it, and thus we may, if we choose (no necessity exists for so doing), shake the entire column (index included) into the bulb, and every time we warm the bulb a new index is formed for us by the contraction itself.

It is well known that the means by which the index-piece is formed in all clinical thermometers is by an air speck introduced in the column, which separates a portion of the mercury, leaving the said portion to act as it does—that is to say, it remains fixed at its attained point until violently shaken down for a new observation; that the various improvements have had for their object simply the preservation of this detached piece or index, whether by the contraction of the bore at a place near the bulb, or by a contraction and slight enlargement combined (Casella's patent), or by means of a twisted stem (which has also been made the subject of a patent).

The thermometer we here present seems to us to entirely meet the object required without being subject to the liabilities of all the preceding forms, and we therefore feel that they need only be known to be preferred to any of those now in use.

Some physicians doubtless have noticed in very finely contracted stem fever thermometers a liability to leave not only the index-piece when applied to a patient, but also the column itself, which has propelled the index-piece to its place; in other words, that not only does the index-piece not retreat, but the entire column in some instances remains above the contraction, until finally made to retreat by the usually swinging motion required for all self-registering clinical thermometers.

The cause of this is a peculiarity in the contraction itself, which frequently occurs in the process of contracting, and it is as difficult to produce, as it is to prevent its occasional occurrence. It has frequently been a subject of complaint as a supposed defective state of the instrument, while in reality no defect whatever existed, inasmuch as wherever it existed it was actually a double security for the safety of the index, instead of the single protection afforded by the contraction. These thermometers are manufactured and for sale by Shepard & Dudley, New York.



## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 10th to August 17th, 1878.*

BAXTER, J. H., Colonel and Chief Medical Purveyor. To inspect Medical Purveying Depot at San Francisco, Cal., and, *en route* back to Washington, that of St. Louis, Mo. S. O. 175, A. G. O., Aug. 14, 1878.

IRWIN, B. J. D., Major and Surgeon. Granted leave of absence for one year. S. O. 176, A. G. O., Aug. 15, 1878.

NOTSON, W. M., Major and Surgeon. Relieved from duty in Dept. of the Platte, to proceed to Philadelphia, Pa., and on arrival report by letter to Surgeon-General. S. O. 176, C. S., A. G. O.

KINSMAN, J. H., Capt. and Asst. Surgeon. Assigned to duty at Baton Rouge Barracks, La., as Post Surgeon. S. O. 22, Dept. of the South, Aug. 7, 1878.

LAUPERDALE, J. V., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, ordered before Army Medical Board, in New York City, for examination for promotion, and then report by letter to Surgeon-General. S. O. 176, C. S., A. G. O.

FITZGERALD, J. A., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Columbia, and ordered before Army Medical Board, in New York City, for examination for promotion, and then report by letter to the Surgeon-General. To take effect when his services can be spared. S. O. 176, C. S., A. G. O.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 17, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Aug. 10, 1878. | 0             | 18             | 28             | 1                          | 3        | 26          | 0          | 0             |
| Aug. 17, 1878. | 0             | 20             | 29             | 1                          | 6        | 23          | 0          | 1             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., August 15, 1878.

*To Medical Officers of the Marine Hospital Service:*

As several of the medical officers of this service have been called upon by the civil authorities to take charge of vessels supposed to be infected with yellow fever, and to assume other responsibilities under the National Quarantine Act, it is proper to state that the quarantine law was enacted too late for Congress to make an appropriation for carrying it into effect this year, though by personal exertion everything is being done which is possible without the expenditure of money. The strictly executive duties which the act imposes upon the Surgeon-General of the Marine Hospital Service have reference to external quarantine—to vessels coming to ports of the United States from without.

The act expressly provides that this office shall not interfere with or impair any sanitary or quarantine laws or regulations of the States or cities; which may be interpreted to refer especially to land quarantines and the health rules of cities. Medical officers of this service are, however, required to assist the civil health

authorities in all proper and practicable ways when requested to do so; and, in view of this fact, and the prevalence of yellow fever in several of the inland cities of the United States, it seems desirable that the Surgeon-General should make known his individual views in reference to the disease and its prevention—these views not to be regarded as having official force.

The weight of scientific evidence seems to warrant the conclusion that yellow fever is produced by an invisible poison, capable of self-multiplication outside of the human organism, which it enters through the air-passages. The poison-germ, or miasm, is a product of the tropics. In this country yellow fever has prevailed in most of the Gulf and Atlantic cities, and in many of the towns along the Mississippi River. In some instances it has been carried inland with the people fleeing from infected localities, but it has never shown a disposition to spread epidemically at points remote from the continuous water-roads of commerce, or to lodge in high, salubrious places. The cities of the great lakes have always been free from the disease. Yellow fever cannot be said to be endemic in the United States, from the fact that in some years it does not appear, though the imported germ undoubtedly survives the mild winters. It appears to have about as much resistance to cold as the banana-plant. When the banana-stalk is killed down by the frost, the yellow fever does not recur until again imported. The germ is transmissible. It is capable of being transported in the clothing or personal effects of passengers and sailors, but its spread from one city to another is chiefly accomplished by vessels—their damp, filthy holds and bilge-water being its favorite lurking-places.

Confinement, moisture, and high temperature favor the multiplication or virulence of the poison. When a wharf, or spot of ground, or a house becomes infected, the poison at once commences to spread, creeping slowly in all possible directions, continually enlarging the area around the centre of infection, unless checked by disinfection, as has undoubtedly been done by the use of carbolic acid in New Orleans in former outbreaks. Yellow fever is not communicated from the sick to the well; the sick and well being dangerous only as possible carriers of the poison-germ or miasm. In support of this assertion it may be stated that, at quarantine hospitals, where the effects of yellow fever patients are burned, or otherwise thoroughly disinfected before the admission of the patients, the attendants do not contract the disease. This has been demonstrated many times. All well persons whose effects have been disinfected may be considered harmless after six or seven days have elapsed from the time of leaving an infected district or vessel, as the period of incubation of the disease lasts from two to six days. This simplifies the question of quarantine—absolute land quarantines being deemed impracticable—and indicates the direction of preventive measures to the vessel, cargo, or the locality, if the poison have found lodgment on shore. A vessel may escape infection if kept clean and dry, and all parts capable of being closed are frequently subjected to the fumes of burning sulphur, and the men employed on board are compelled to bathe and change their flannels daily, and not allowed to sleep on deck or in the hold of the vessel. There is an example of a ship trading between Havana and New York, upon which these precautions have been enforced for a period of twelve years, and not a single case of yellow fever has occurred on board. Though not sufficiently demonstrated to state as a fact, still there seems good reason to believe that much may be accomplished by individual prophylaxis—by the use internally of small doses of

sulphate of quinia at regular intervals, and of tincture of iron and chlorate of potassa. As the poison enters the system through the air-passages, it has been suggested that the nasal passages be bathed frequently with a solution containing quinine, to be applied by means of a nasal spray.—JNO. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

OFFICE SURGEON GENERAL U. S. MARINE HOSPITAL SERVICE,  
WASHINGTON, D. C., Aug. 17, 1878.

**NATIONAL QUARANTINE REPORT.**—Abstract of sanitary reports received during the past week under the National Quarantine Act:

*New Orleans.*—Since last report 471 cases of yellow fever and 121 deaths, making 902 cases and 239 deaths, of which 108 cases and 29 deaths occurred during twenty-four hours to noon yesterday.

*Port Eads.*—33 cases of yellow fever and 5 deaths during the week to yesterday evening.

*Grenada, Miss.*—The first case of yellow fever occurred July 25th. To noon yesterday there had been 125 cases and 47 deaths.

*Mobile.*—One death from yellow fever yesterday—a colored woman, who, it is reported, had been on an excursion to Biloxi, Miss., July 24th.

*Cincinnati.*—Since last report a young woman, living in a house where baggage believed to be from New Orleans was stored, died of a fever resembling yellow fever. Another case of fever, of similar character, has since developed in the same neighborhood. Steamer *John A. Porter*, from New Orleans, had four deaths from yellow fever before arriving at Cincinnati, which city she passed on Friday, bound for Pittsburg, with several cases on board. One man, who left the *John Porter* at Louisville, proceeded to Cincinnati by rail, where he was sent to hospital on the 13th inst. with fever. The steamer *Golden Rule* passed Cairo yesterday evening for Cincinnati with two cases of yellow fever on board. Two deaths occurred on board that vessel Thursday.

Several people from New Orleans and Port Eads have sickened or died of yellow fever on their journey northward; one case at Covington, Ky., one at Cairo, and three deaths at St. Louis.

*Memphis.*—The first case of yellow fever occurred August 13th, in the person of a woman whose eating-house was frequented by river boatmen. The disease has spread rapidly, but has not yet assumed a malignant type.

*Vicksburg.*—Yellow fever has appeared since last report: the first death occurred August 12th. Advice to noon to-day report the outbreak of the disease near river front within last fifteen hours, from whence it is spreading rapidly.

*Havana.*—99 deaths from yellow fever and 9 from small-pox during week ending August 10th.

*Cardenas and Sagua la Grande, Cuba.*—No cases of yellow fever during week ending August 9th.

*Matanzas.*—Decrease in yellow fever week ending August 9th.

*Calcutta.*—10 deaths from cholera week ending June 15th.

*Bombay.*—25 deaths from cholera, week ending June 25th.

Reports from other places indicate good health.—JNO. M. WOODWORTH, Surgeon-General Marine Hospital Service.

DR. BENJAMIN R. ROBSON, the oldest physician in New York, an incorporator of the County Medical Society of the City of New York, and for many years its treasurer, died Aug. 18, 1878, in the ninety-third year of his age.



## Original Lectures.

### ACNE AND ACNE ROSACEA.

CLINICAL LECTURE DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

By H. G. PIFFARD, M.D.,

PROFESSOR OF DERMATOLOGY.

(Reported for THE MEDICAL RECORD.)

ACNE—ACNE ROSACEA—CAUSES—TREATMENT FOR ACUTE AND CHRONIC STAGES.

GENTLEMEN:—The first patient whom I present to-day is one who has an eruption upon the face. It is an eruption with which you are all more or less familiar, because it is not by any means infrequent or uncommon. The question is, from what form of skin disease is this man suffering? He has had it continuously for about two years, but about every alternate week these little points which you see get larger. In the first place, there is a general redness of the surface. In addition, you will notice a large number of elevations; some of these are red and solid, others are mounted by little yellowish points; and here is one which is rather soft, but at the same time you do not see any yellowish point at its summit. When this soft elevation is punctured, it is, as you see, filled with pus.

On the face of this second patient there is an eruption which is very similar in appearance to the one just described, yet the eruptions in these two cases differ from each other considerably. The eruption upon this woman's face is of two years' standing. Her general health is very good. The *first* is a case of pure *acne*; the *second* is a case of *acne rosacea*.

#### ACNE ROSACEA.

Acne rosacea is a skin affection which is always located upon the face; it is never found elsewhere, and it usually commences in the following manner: at the very beginning it will be found that there are present little reddish *rosy* spots; sometimes these little spots are accompanied by slight circumscribed infiltration of the surrounding skin. These spots are almost invariably situated upon the summit and sides of the nose, and extend from the nose to the cheeks. The small reddish spots, *guttæ* as they are sometimes called, last for a few days, perhaps for a week, and then disappear, to return in the course of a few weeks. As time goes on, for the disease is exceedingly chronic, the number of these spots increases, and they remain upon the skin longer than at first, but as they disappear they are apt to leave a slight thickening of the skin. After a time, the new spots which appear are seen before the older ones have disappeared, so that at the end of one year, perhaps, you will find a pretty uniformly diffused redness, with a slight amount of thickening of the skin. This redness disappears in a measure under pressure, but returns as soon as the pressure is removed. The color, however, does not disappear as rapidly as in acute congestion.

In addition to the redness of the surface, we now find that the veins upon the sides of the nose are increased in size. When the disease has lasted for some time, the veins become prominent, especially about the alæ of the nose. When it has had a duration of perhaps three or four years—in some cases it occurs much sooner—the thickness of the skin covering the nose, the enlargement of the veins, and the redness are very much

greater than in health, and the same changes, to a less extent, are manifest upon the cheeks.

The skin of the nose may perhaps be increased in thickness three, four, or five times, thus giving the organ a very uncomely appearance. Formerly this condition was regarded as the opprobrium of skin diseases, because it was one of the most difficult to relieve. But as we have gained a better knowledge of its causes we are, in many instances, able to remedy the cause upon which it depends, and then by appropriate local treatment to diminish very decidedly the amount of the lesion.

#### CAUSES OF ACNE ROSACEA.

*First*, with regard to causes. The disease rarely occurs in young persons; it occurs most frequently between the ages of thirty-five and forty-five years. In men, it depends most frequently upon some derangement of the digestive function. This derangement of the digestive function may be the result of functional or organic disease of the stomach and liver. You are all aware that habitual indulgence in the use of alcohol produces this rosaceous condition of the skin of the nose. That is not due so much to direct congestion of the face produced by the liquor, as to dyspepsia and congestion of the liver, which, by reflex action, disturbs the circulation of the face, and thus tends to produce congestion. Any cause whatever which is capable of congesting the face acts as a predisposing cause of acne rosacea. The face may be kept almost constantly congested by following certain occupations. It has become proverbial that cooks are more subject to rosacea than any other class of persons. Next to them come blacksmiths and forgers of metals. You all know that a full meal will produce more or less temporary congestion of the face. As digestion goes on and the stomach becomes empty, this congestion passes away. Now, if these causes of congestion are in constant operation—if, for example, a man lives too high and habitually drinks too much alcohol, and thus keeps his face in a constant state of congestion—the *rosaceous* condition is apt to develop.

In women, however, there is another class of causes which, in a majority of cases, operates in the production of rosacea. In them, the rosaceous condition is not so often due to derangement of the digestive function as to derangement of the uterine function. Certainly more than one-half the cases of rosacea occurring in the female have their origin either in functional or organic diseases of the ovaries or uterus. You have already learned of the intimate relation which exists between the generative organs and the circulation of the face.

When these organs are diseased, we find that the skin of the face very often makes it manifest by congestion during the time the uterine disease exists. If the uterine disorder is chronic, there is a tendency to continued congestion, and ultimately a rosaceous condition is developed.

As causes of acne rosacea, therefore, we may look to occupation, derangement of the stomach or liver, and derangement of some portion of the generative apparatus, more especially of the uterus and ovaries.

#### TREATMENT.

You can readily perceive, as we come to speak of the treatment of these skin affections, that, if the causes of a constant, or almost constant, congestion of the face can be removed, we have an opportunity to treat the case successfully. But if we cannot remove these causes, if they are in constant operation, all that we can do in the way of treatment is simply palliative.

At the very outset, therefore, we should inquire regarding the general health of the patient, especially with regard to derangements of digestion, disorders of the liver, irregularities of the bowels, etc. In the female special inquiry should be made with reference to the uterine functions. We should never forget to make close inquiry with reference to the habitual use of alcoholic stimulants, and determine as nearly as possible the quantity consumed daily. In the case before us there is quite recently an accession of the rosacea condition. He says he has been in the habit of using alcoholic stimulants in considerable quantities, but has given them up; he has not taken very much during the past *two* weeks. He has been in the habit of taking sometimes as many as *twenty* drinks a day, but not sufficient to get really drunk. His former drinking has probably affected his liver, and in consequence congestion of the face has been induced, and the two or three drinks which he now takes daily are sufficient to maintain this congestion. The damage done by a single potion is not overcome before another is taken, and in that manner there is kept up a constant tendency to congestion.

In our other case the patient doubtless has some uterine disorder, and this is to be suspected from the location of the eruption about the mouth.

The man has, in addition to the slight rosacea condition, papules and pustules of acne. The two diseases, as I have already stated, are distinct, but in the rosacea we very frequently find acne in addition.

Both the acne and the rosacea are dependent upon the same class of causes. The first thing this man must do, if he wishes to get rid of the eruption upon his face, is to stop using alcoholic drink. We should next examine with reference to hepatic congestion, and endeavor to correct all disorders of the stomach, liver, and bowels. When that is done, we should consider what is best to be done in the way of local treatment.

#### LOCAL TREATMENT OF ACNE.

We have here pustules, papules, and a certain amount of redness. Our first effort should be to remove the congestion as quickly as possible. The pustules should all be punctured; and in opening them we should cut pretty wide and reasonably deep. The papules should be treated in the same manner, and in putting your knife through them make the incision sufficiently deep, so that they will bleed quite freely. In other words, make local depletion.

Next in order, the best application to reduce the congestion would be a poultice. If more convenient, the face can be held in hot water. To do this, let him take a basin of hot water, immerse his face, withdraw it, breathe, immerse it again, and so go on bathing the parts for some time every evening. Another method is to cover the face with pieces of muslin kept constantly wet with water as hot as it can be borne. As means for relieving local congestion, therefore, use local depletion and a poultice, which induces resolution by stimulating the circulation.

In the course of a week, if this plan of treatment is followed out faithfully, a very decided bleaching of the parts will be produced. If there is very much congestion of the skin not invaded by the pustules and papules, little scarifications may be made wherever it is most marked. Although the color at the end of a week, perhaps, may be very much improved, still there will remain a certain amount of thickening of the skin. That infiltration must be reduced, as you have often been told, by the use of alkaline applications. The face should be thoroughly rubbed three or four

times a week with green soap. The soap will cause an active inflammation that will soon subside, and leave the skin yet red, but with the thickening very much reduced. The skin then usually has a polished, shining appearance.

When the infiltration and thickening have been removed, and nothing remains but the red color and polished appearance of the skin, this is most readily removed by the application of sulphur. For this purpose a wash, prepared according to the following formula, may be employed:

R. Lac. sulphur,  
Glycerine,  
Rose-water,  
Bay rum, aa.

This should be applied every night.

In this manner, if the exciting causes have been removed, a pretty good cure can be effected in the course of two or three months.

When a varicose condition of the veins is present, the veins must be destroyed. This can be done either by dividing them crosswise, or, still better, by dividing them lengthwise, throughout their entire extent, with a thin, sharp knife, and then, if you choose, rubbing into them a small amount of the persulphate of iron. The veins can also be obliterated by touching them with a white-hot needle. The point in this item of the treatment is, by some means, to obliterate the veins.

For the thickened condition of the skin, present later in the disease, you will be obliged to institute an entirely different course of treatment. In the third, or last stage of the disease, the redness which characterized the earlier stages may have in great measure faded, and the principal lesion will be a marked hypertrophy of the skin. Internal medication will have little influence upon this condition. It may be diminished, although I have never seen it entirely removed, by the use of the constant galvanic current applied directly through the nose. In other cases red-hot needles will destroy more or less of the thickening, and the punctures on healing will induce a certain amount of contraction in the neighboring skin. When the thickening is excessive, excision of portions of the integument may become necessary.

#### THE QUESTION OF AMPUTATION IN COMPOUND FRACTURE OF THE LEG.

CLINICAL REMARKS MADE IN BELLEVUE HOSPITAL.

By ERSKINE MASON, M.D.,

CLINICAL PROFESSOR OF SURGERY, BELLEVUE HOSPITAL MEDICAL COLLEGE.

GENTLEMEN:—The case before us presents several points of special interest. Its history is briefly as follows:

This man, æt. 34 years, a few hours before admission to the hospital, was thrown from the front platform of a street-car, and received a compound and somewhat comminuted fracture of the tibia. It could not be ascertained whether the car-wheel passed entirely over the limb, or whether it merely struck the limb and pushed it to one side.

When he was brought in there were several wounds of the soft parts, and they communicated with the bone, and there was also considerable hemorrhage.

The question of immediate amputation suggested itself, but in view of the fact that the man was suffering considerably from shock, it was decided to cover



the wounds with lint and a roller bandage, and allow him to remain quiet for a few hours. The limb was dressed according to Lister's method. The man recovered from the shock; the hemorrhage almost entirely ceased. The general condition of the limb and of the patient was very good. At the end of twenty-four hours there was so much oozing from the wounds that the limb was simply placed in a fracture-box filled with bran. Carbolyzed water was used for wetting the lint or pieces of cloth which immediately covered the wounds; the limb was kept as clean as possible and allowed to remain in the fracture-box a few days. For one or two days it seemed that amputation would be inevitable, but the fragments and the limb were kept as quiet as possible, and the unfavorable appearance began to disappear. After a few days, in order to preserve perfect immobility, and at the same time to allow of ready inspection, the upper part of the leg and the foot and ankle were encased with a plaster-of-Paris bandage and covered with silicate of soda, and in these casings, as they were being applied, were secured strips of galvanized iron (large wire would answer equally as well) bent with elbows, so that when the dressing was completed the fractured portion was left uncovered, and yet supported by the iron strips by which it was arched and surrounded.

Twenty-six days after admission to the hospital the wounds were quite well contracted, the discharge was diminishing, and a case which at one time was threatening was progressing towards a perfect cure; the compound had been nearly converted into a simple fracture.

*Remarks.*—In the majority of cases of compound fractures produced by car-wheels, especially of the tibia and fibula, immediate amputation is required. When called to see a case of this character, the question to be decided first is, whether or not an attempt shall be made to save the limb, and to secure for the patient a useful extremity.

This is sometimes a very difficult question to answer. It is a question upon which there may be a very great difference of opinion among surgeons. Some will condemn such a limb at once, while others will endeavor to save the limb, in accordance with the principles of conservative surgery.

You must be very careful, however, that in your attempts to save the limb you do not sacrifice the life of your patient. I do not suppose there is any one who has had an extended hospital experience who cannot recall a case in which, if amputation had at once been performed, the life of the patient would probably have been saved. On the other hand, it is possible that cases can be recalled in which amputation was performed, and in which the limb probably might have been saved. It is very difficult (impossible) to give a set of rules by which you shall be positively directed in reaching a decision in any given case. It is easy to understand, if there is a great amount of comminution of both bones of the leg and extensive laceration of the integument and muscles, that it would be dangerous to undertake to save the limb. Amputation should be performed as soon as reaction is established. If you are called to a case in which the bones are fractured, but not comminuted, the muscles are extremely lacerated, and there is danger that the integument will slough, amputation is demanded. Again, if you are called to a case in which the fracture is simple, without comminution, and the main artery of the limb is severed, but you are unable to secure the vessel at the wound, immediate amputation may be demanded.

If, on the other hand, you are called to a case in

which there is a compound fracture and there is only a moderate amount of laceration of the soft parts, and you know that the patient has a bad constitution—for example, is intemperate—the chances are that the patient will do better with amputation than under an effort to save the limb.

If the joints, either the knee or ankle, are involved in the fracture, the case is probably one in which amputation will be considered.

These are general rules by which you can be guided in deciding the question of amputation in the *lower extremities*, but to them there are necessarily many exceptions.

In cases of fracture of the same character involving the upper extremities, the general rules governing treatment are somewhat different.

In cases in which a joint is opened, or one of the main arteries—the radial or the ulnar—an effort may be made to save the limb by ligating the bleeding vessel high up or at the wound. These are general rules, and by them the patient at least may have the benefit of a doubt, for recourse may yet be had to secondary amputation.

There is one point which I have overlooked with reference to the treatment of compound comminuted fracture. If you pass your finger into the wound, you may find several loose pieces of bone. Shall they be removed, or shall they be allowed to remain? For my own part, I prefer to meddle with them to the least possible extent. If a loose piece of bone lies near the opening in the integument, it may be removed; but if it be situated at much depth, or is in the least attached, it is better to allow it to remain. After the lapse of a few weeks it will, if it is to be removed, become separated from the soft parts, when it can be removed by a secondary operation. If, on the other hand, union does not take place, and the non-union is due to the presence of a fragment between the broken ends of the bone, it must necessarily be removed before union will occur. These are general rules which may render you some assistance in the management of compound fractures.

## CLASS-ROOM LESSONS ON SYPHILIS,

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS  
IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

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[For THE MEDICAL RECORD.]

### LESSON IV.

EARLY DIFFERENTIAL DIAGNOSIS—THE PERIOD OF  
INCUBATION—THE INDURATION OF SYPHILIS ESSEN-  
TIALY NON-INFLAMMATORY—ILLUSTRATIVE CASES  
—THE SO-CALLED SYPHILITIC ROSEOLA.

GENTLEMEN:—I will next direct your attention to the *early differential diagnosis* of the initial lesion of syphilis.

The characteristic and only constant feature of all lesions, during the active stages of syphilis, is shown, by microscopic examination, to consist in a localized cell-accumulation.

Consideration of the nature and behavior of this material will afford intelligent aid, in a differential diagnosis, between the initial lesion of syphilis in its early period and solutions of continuity from other causes. As far as known, syphilis is primarily a process of cell-growth and accumulation, so rapid that it interferes with healthy tissue growth by obstructing the

processes of nutrition and development; not of necessity interfering to the extent of causing death of tissue, but of impairing its vitality and thus causing it to break down more rapidly under influences which favor solutions of continuity. Hence we have presenting, as *characteristic* initial lesions of syphilis, either a neoplasm, dense, insensitive, and covered with unbroken and apparently normal cuticle or mucous membrane; or, from the causes above mentioned, some one of the various *characteristic solutions of continuity* described in Lesson I.

In addition to the foregoing *characteristic* lesions, we may also find early local disturbance in various forms and from various causes associated with the beginnings of syphilitic cell-accumulation, but presenting no features *characteristic* of syphilitic inoculation.

The known fact, however, that syphilitic infection not unfrequently follows a wound of inoculation which heals promptly and with no subsequent solution of continuity, is sufficient to prove that *neither INFLAMMATION nor ULCERATION are essential features in a syphilitic inoculation.*

Thus, wounds, abrasions, broken vesicles, pustules, or ulcers, may receive a syphilitic inoculation, and progress or heal as if no such inoculation had taken place.

It is then evident that no *positive* differential diagnosis can be made *at once* between lesions which *will* be followed by syphilitic infection and those which *will not*. A positive decision cannot be rendered until after such *interval* from latest exposure as may be required to develop some characteristic cell-accumulation, either on the site of the lesion or in the adjacent lymphatic channels and glands.

This *interval* is recognized by all authorities as a clinical fact, and is characterized as "THE PERIOD OF INCUBATION OF SYPHILIS."

The term was invented in accordance with a belief (formerly prevalent) that the *virus* of syphilis was a mysterious, impalpable influence. That this, having entered the system at a given point, instantly permeated the fluids and solids of the entire organism. It then accumulated by "a kind of germination" until the point of "saturation" or extreme limit of tolerance was reached. This event was announced by a peculiar and characteristic action at the point of entrance of the virus, which was termed the *chancre*.

It is plain, however, that such a view of syphilitic infection can have no support if we accept the view of a cell-degradation and a systemic syphilitic infection, in accordance with known histological, physiological, and pathological laws.

It is, then, to the local conditions at the point of inoculation that we must look for the earliest evidences of syphilitic action. This is afforded at first through the microscope, by discovery of a densely packed *non-inflammatory* cell-accumulation,\* which steadily increases until it is appreciable to the ordinary touch. The same cell-accumulation is also seen to occur in the lymphatic vessels connecting the initial lesion with the adjacent lymphatic glands. These vessels are not unfrequently found obstructed and indurated, and like knotted cords the size of a crow's quill, or larger, often easily traceable to their gland termination. The associated blood-vessels are never narrowed or interrupted from this cause.

The local induration of a suspected lesion, however, is not *positive* evidence of syphilitic action. Cell-accumulation, sufficient in degree to produce well-pronounced induration, may result from *irritation* of a *simple* lesion. Thus, an herpetic vesicle, or pustule, even a simple abrasion, through friction from clothes, or from applications of caustics or astringents, may become indurated sufficiently to raise grave suspicions of syphilis.

Induration, in such cases, is always the result of *inflammatory* action.

The induration of *syphilis* is essentially *non-inflammatory*. The differential diagnosis is aided by means used to combat the inflammatory condition. Under the influence of rest and local sedatives the *incidental* induration is promptly dissipated; in the initial lesion of syphilis the induration is made more salient. Sometimes, though rarely, the induration is quite obscured by a slight localized serous effusion, which gives it a bluish appearance. This I have observed in two cases where the lesion was on a finger. The same condition quite frequently succeeds well-marked indurations near *fosseæ glandis*, and is so persistent as to become a valuable diagnostic mark.

The induration may be said to be *characteristic* when insensitive, dense, and resistant, like cartilage. If pressed between the thumb and finger, it becomes exsanguinated, and like in appearance to the tarsal cartilage when the eyelid is turned back.

Even this most positive evidence of syphilis cannot be accepted as conclusive. The induration of a commencing *epithelioma* simulates it very perfectly, and, if an open lesion, its secretion under the microscope presents appearances almost identical. In summing up the whole matter, we are forced to confess that a final decision in any given case is not warranted until some other evidence is present besides the appearance and character of the *local* lesion.

In all cases, where possible, the person from whom *syphilis* may have been acquired should be carefully examined.

In making such examination, search not only for the initial lesion, but for each of the possible *secondary* manifestations. Even when such are found, it must be borne in mind that a *breach of surface on the person exposed* is essential to the acquirement of syphilis, and that, this surface must be brought into contact with the syphilitic secretion, either *directly* or *mediately*. So that while the presumptive evidence furnished by *confrontation* is often strong, it is not *necessarily* conclusive.

The following cases will serve to illustrate the importance of caution in arriving at conclusions in regard to the true nature of venereal lesions:

CASE I.—Mr. T., aged 23, on the fourteenth day after his first and only connection, noticed a slight urethral discharge. Under the microscope this was found to be distinctly purulent. No pain on urination. Meatoscope showed the mucous lining of the urethra deeply congested for half an inch. Beyond this there was no purulent secretion; appearances normal. The difficulty was evidently not *gonorrhœal*. A *syphilitic inoculation* was suspected. Examination of the woman with whom he had connection showed her to be passing through the active stages of syphilis. No initial lesion was found; but the inguinal, epitrochlear, and cervical glands were characteristically enlarged. Several *mucous tubercles* were discovered within the vulva, one in the *cervical sulcus*, and three on the *os tincæ*. Besides these was a double row around the *anus*, eroded and secreting pus freely. In the presence of such evidences of syphilis, it seemed

\* The only recognizable cell-accumulation in syphilis is confined to the lymphatic system. If, during the period of so-called incubation, the syphilitic influence has found access to the general circulation, no evidence of it has ever been discovered in the condition of blood-vessels, or of the blood, or in the conditions or sensations of the persons so affected.



impossible that the young man could have escaped infection. The urethral discharge was probably caused by a syphilitic inoculation which had not yet produced a well-defined initial lesion. Inguinal glands of both sides slightly enlarged. Treatment for syphilis deferred (much against the patient's wish) until evidence of syphilis should become more positive. *The urethral discharge gradually declined, and disappeared entirely in about a month.* Up to the present time (four years from date of exposure) patient has not had the slightest evidence of syphilitic trouble.

CASE II.—Mr. H., aged 30, had a suspicious connection in May last. On the third day following he noticed several small pimples on his prepuce. Fearing venereal disease, he consulted his family physician, who at once pronounced the trouble a simple *herpes*. A mild lotion was recommended. Under its use all evidence of disease disappeared within a few days, and the patient was assured, in the most positive manner, that he was free from the disease. June 10th, four weeks after the suspicious connection (and more than two after he had been pronounced free from the disease), the patient was brought to me by his physician for an opinion with regard to a small, hard, eroded nodule on the former site of the *herpes*. Inguinal glands on corresponding (right) side characteristically enlarged. My belief that the nodule was an initial lesion of syphilis was strongly expressed, and the gentleman was put upon a mercurial course. A month later he called, presenting a well-marked roseola, with the usual secondary gland enlargements. His wife, who accompanied him, had an indurated initial lesion on the lower border of the meatus urinaris, and well-marked inguinal enlargement.

CASE III.—Mr. W. V. No unusual trouble until two and a half months ago, when, ten days after a suspicious connection, he noticed a small sore on the right side of the penis. He consulted a surgeon, by whom he was informed that he had a "*soft chancre*;" that he would quickly destroy it by the application of nitric acid, and further, that *there need be no fear of subsequent trouble*. The cauterization was made, was repeated several times, at intervals of three or four days; healing finally took place in about three weeks. Patient had connection with his wife the night previous to receiving the surgeon's opinion that he had a *soft chancre*; no connection since.

This gentleman called upon me to ascertain the cause of a papulo-pustular eruption, which was confined to the face and neck. I at once recognized it as syphilitic; examined the cicatrix of the so-called *soft chancre*, and found it distinctly indurated. Gland enlargements of elbow and neck all well pronounced and characteristic. In answer to an anxious inquiry as to the possible infection of the wife, I was obliged to admit the possibility of such a calamity. He assured me that she had been, and was then, perfectly well in every respect, "*except that she had little swellings in the right groin; not the least pain.*" An examination of the lady on the following day disclosed characteristic gland enlargements, not only in the groin, but in the arm and neck. No search was made for the initial lesion. She was put upon constitutional treatment for "*a form of leucocythemia*," and remained in blissful ignorance as to the nature of her own and her husband's trouble.

#### SYPHILIS—DIFFICULTY IN DIAGNOSIS—LATE APPEARANCE OF THE ROSEOLA.

CASE IV.—This case, gentlemen, contains a few interesting points. It illustrates the difficulty we some-

times encounter in making a diagnosis, and the reward that may be received by prolonged attention to the progress of a case.

Those of you who have attended my clinics on the Island will remember that this man was presented each time as one concerning whom there was a doubt regarding diagnosis. He entered the hospital six weeks ago, and at that time gave a history of having had connection four weeks previous to his admission. The intercourse resulted in a soreness at the end of the penis, accompanied by a urethral discharge. When he came into the hospital there was considerable œdema of the glans penis and paraphimosis. The constriction was so great that there was danger of loss of tissue by gangrene if prompt relief was not afforded. The prepuce was divided at the seat of constriction, but the œdema still continued. The circulation, of course, was restored to such an extent as to relieve the patient of immediate danger from sloughing, but the œdema has been persistent and is present, to some extent, at the present time. There was no induration in the tissues at any point; there was no evidence of chancreoid action except the slight erosion, not at all characteristic of chancreoid. There was no positively diagnostic enlargement of the inguinal glands, nor was there any evidence except this persistent œdema and the slight discharge which gave rise to the suspicion that there was a sore in the urethra. This discharge was supposed to be gonorrhœal until the swelling of the glans occurred. The patient remained in the hospital, and we have waited four weeks to see whether any secondary symptoms of syphilis would be developed before the longest known period, between the date of the connection and the date of the appearance of such manifestation, had elapsed. Nothing was seen until yesterday, when I discovered that a syphilitic roseola had appeared.

You may remember that we examined the case critically every week for four weeks, in hopes, if it was to appear, to see this peculiar roseolous eruption which indicates positively the presence of syphilitic infection. The patient was not aware that anything unusual was occurring, except that he felt a slight uneasiness over some parts of the back, and at my visit to the hospital yesterday the lesion was distinctly visible. It is, as you see, now spread quite uniformly over the entire trunk.

At about this time also we look for the characteristic enlargement of lymphatic glands. It is present to some extent, but simply in the neck. We usually find glandular enlargement in the epitrochlear region, but those glands are not yet enlarged to any appreciable extent. We may, however, claim that the disease has become general; that the enlargement of glands will now go on rapidly; and that at the end of a week we shall find enlargement of the epitrochlear glands, so characteristic of constitutional syphilis in its active stage, present to an appreciable degree. You will rarely see a case of syphilitic roseola more characteristic and more marked than this.

The lesion upon the penis has healed entirely, leaving no evidence whatever of disease in that part. This man might have been sent out from the hospital one week ago under the impression that he had had nothing more than a simple sore, not having had any characteristic mark of syphilis, and in other hands been found to be suffering from unmistakable specific disease. Fortunately, however, he was retained, and we have been rewarded for our patient waiting by the appearance of evidence which sustains the suspicion entertained when he was first admitted to the hospital.

## SYPHILITIC ROSEOLA.

This so-called syphilitic roseola, in a majority of cases, is developed without constitutional disturbance. In the true sense of the word it is not syphilitic; that is, it is not due to the irritation produced by the *materia morbi* of syphilis. It corresponds with roseola produced by other causes. Wilson describes it as a form of roseola produced by syphilitic material, but in this respect I think he is mistaken. For it comes and goes like any other form of roseola, lasting sometimes for only a few hours, and sometimes for months. In the cases in which it continues for a long time, when it fades out, a copper-colored stain remains, which is considered characteristic of syphilis. When this stain is examined it is found to be caused by the coloring matter of the blood which has exuded into the cellular tissue. This peculiar discoloration of the skin, while it is characteristic of roseola that has existed for a long time, has no meaning which cannot be explained by ordinary causes unconnected with syphilis. It may be asked, why does the roseola of syphilis continue so long, while the other forms of the eruption are so evanescent? A roseola, distinct and well marked, may appear upon the skin of a delicate woman from the mere sense of shame, remain for a few moments and then disappear. Roseola, arising from other causes, may remain longer, but it is comparatively an evanescent eruption.

You will now recall the fact that the *causes* of these varieties of roseola are evanescent. Roseola, produced by taking food not easily digested, disappears as soon as the offending material is removed, and so it is with roseola in general. The effect produced by the syphilitic influence, however, remains continuous for months, and it is not at all wonderful that the roseola dependent upon it should be persistent. The cause in some persons is more abundant than in others, hence the roseola remains longer upon some patients than upon others. It is also uninfluenced by anti-syphilitic treatment. It has been found by some of the later writers, who still regard it as truly syphilitic, that the most satisfactory treatment is by means of tonics, iron, quinine, etc., and that the use of mercury is not followed by any specially beneficial results.

## Original Communications.

## AN INTERESTING AND UNUSUAL CASE OF OBSTETRICS.

By D. S. KELLOGG, M.D.,

PLATTSBURG, N. Y.

On the 27th of May, 1878, I was called, in the afternoon, to see a French Canadian woman, aged 37, who had been in labor about twenty hours. This was her ninth confinement. A midwife was with her who could not speak English. The pains were not strong, and the os uteri was so high up as to make it impossible, then, to diagnosticate the presentation. On removal, my hand was covered with a greenish-brown fluid which I thought to be meconium. The midwife, who was strong and powerful, I knew to be in the habit of putting both hands into the vagina and separating its walls with great force, and, also, of using some decoction of herbs "to soften the parts." After a time I became satisfied that it was either a knee or an elbow presentation. I sent

for assistance, and Dr. Nichols soon came. By that time there was no difficulty in recognizing the right elbow. On introducing the hand the promontory of the sacrum was found to be very prominent, and although this was readily passed, to our utter amazement, we could find nothing of the child excepting the right upper extremity, and the body from near the neck to a little below the umbilicus. There was a nearly circular band about one-third of the distance from the internal os uteri to the fundus, which band was higher up behind than in front, and which closed down upon the child like a strong belt of leather. The umbilicus was in front and towards the right side of the mother, and accessible. It was impossible to reach the head, neck, left shoulder, lower extremities, the placenta, or even the nates, and the child, undoubtedly, had been dead for some time. External manipulation readily revealed the greater portion of the child above a depression surrounding the uterus. As the woman was strong, we tried, at once, to pass our hand through the constriction, without ether, but to no purpose. We soon sent for an anæsthetic, and for Dr. Lyon, who fully confirmed our diagnosis. When the patient was anæsthetized (chloroform one part and ether three parts being used) the slow process of dilatation was continued. Each one, in turn, until exhausted, gently, but firmly, tried to insinuate his hand into the stricture. After an hour or two we were rewarded by one foot, then presently by the other. Before long everything was brought through the constriction, excepting the head and placenta. The former remained for a while, but at length yielded; the latter we paid no attention to. *Now*, there came on something of a spasm of the internal os uteri. This did not appear until the head had nearly left the constriction above, and did not last long. The whole child was now delivered, excepting the head, which lay with the occiput above the symphysis pubis, with the face in the hollow of the excavation. There it remained and could not be moved. The forceps was applied and locked three or four times, but invariably slipped off over the face. Two fingers were inserted in the mouth, and with the other hand externally over the occiput, and a second person holding the body, rotation was thoroughly tried, but it uniformly failed. The head was next perforated and some fluid escaped, but the muscular contractions of the mother closed the opening immediately. After nearly two hours' hard work, as a last resort, the body was severed from the head. At once there gushed out, from the cranial and spinal cavities, perhaps, twenty ounces of a watery fluid. Dr. Lyon then introduced some scissors, made a longer incision through the cranium, crowded the head up, turned it around with his hand, applied the forceps and withdrew the head in five minutes after it was separated from the body. At this last application of the forceps over thirty ounces of a bloody liquid flowed out from the cranial cavity. The placenta was removed without the slightest difficulty, and with almost no hemorrhage. The woman was given a grain of opium, and directed to take the same quantity every three hours. She took, in all, four doses. It was necessary to use the catheter for three days. The lochial discharge was slight and not at any time offensive. The seventh day after, she sat up long enough to have her bed made; the eighth day, six hours. By measurement, the antero-posterior diameter of the superior strait was found to be a little less than three and one-half inches.

To recapitulate: there were a somewhat deformed pelvis; a powerful, nearly circular constriction of the



body of the uterus, followed by a spasm of the internal os uteri; an arm presentation, and a hydrocephalic child.

Was this constriction an hour-glass contraction?

Our method of procedure may be criticised, but we can only say that we felt justified in removing a dead child, after all ordinary means had failed, in any manner possible not injurious to the mother, and that theories and rules which sound well on paper cannot always be brought into practical use.

## TABULATED RESULTS OF THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM BY MEANS OF SALICYLIC ACID AND ITS COMPOUNDS.

By FRANCIS H. MILLER, M.D.,

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ALTHOUGH much has already been said and written concerning the treatment of acute articular rheumatism by means of salicylic acid and its compounds, I have no hesitancy in placing before the profession the following tabulated and statistical evidence of the results of such treatment; for by such evidence, and

such only, must a large proportion of all medical practitioners be guided to the introduction of new remedies in their treatment of disease. And as there are still many who are kept from prescribing the remedy, on account of their possessing an insufficient amount of such evidence attesting its special efficacy in this affection, the following observations will, to such, prove interesting.

Of the following cases, two (Nos. 3 and 12) were treated with salicylic acid in ten-grain doses every two hours till one drachm was taken, and this amount to be given daily. Nine (Nos. 4, 5, 6, 13, 14, 15, 16, 19, 20) with Prof. Alonzo Clark's mixture (R Ac. salicyl., 3 iij.; sodæ bicarb., 3 ij.; glycerinæ, aquæ, aa 3 ij. M.) 3 ss. every four hours. Eleven were treated with salicylate of soda, ten grains every two hours till one drachm was taken, and this to be repeated every twenty-four hours. The salicylate of soda appears to be the most efficient mode of administering the remedy, producing very rarely the nausea and vomiting which so frequently follow the use of the uncombined acid or the acid mixture.

In comparing the results of the different modes of treatment of the disease under consideration, the unprejudiced observer will, I think, accord to salicylic acid the first place.

| No. of case. | Age and sex. | No. of previous attacks. | No. of days since development of attack. | Pulse and temperature before institution of treatment. | No. of days before temp. and pulse became normal after commencing treatment. | No. of days after institution of treatment to date of discharge. | Remarks.                                                                     |
|--------------|--------------|--------------------------|------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1            | male 19      | numerous                 | 5                                        | 104<br>102° F.                                         | 5                                                                            | 7                                                                | Has cardiac hypertrophy and double systolic and diastolic murmurs.           |
| 2            | male 26      | 2                        | 3                                        | 108<br>104° F.                                         | 5                                                                            | 18                                                               | Kept in hospital seven days or more after complete recovery; had no relapse. |
| 3            | male 37      | 1                        | 21                                       | 104<br>102° F.                                         | 4                                                                            | 24                                                               | Kept in hospital one week longer than was necessary; no relapse.             |
| 4            | male 38      | 4                        | 7                                        | 100<br>101½° F.                                        | 3                                                                            | 4                                                                |                                                                              |
| 5            | female 14    | 0                        | 8                                        | 114<br>101° F.                                         | 2                                                                            | 7                                                                |                                                                              |
| 6            | male 15      | unknown                  | 7                                        | 112<br>102° F.                                         | 4                                                                            | 5                                                                |                                                                              |
| 7            | male 19      | numerous                 | 2                                        | 98<br>103° F.                                          | 4                                                                            | 6                                                                |                                                                              |
| 8            | male 27      | 3                        | 4                                        | 112<br>103½° F.                                        | 3                                                                            | 7                                                                |                                                                              |
| 9            | male 49      | 1                        | 14                                       | 120<br>102½° F.                                        | 3                                                                            | 22                                                               | Temperature rose, during first 14 days, whenever sal. of soda was stopped.   |
| 10           | male 33      | 1                        | 6                                        | not taken                                              | 5                                                                            | 20                                                               |                                                                              |
| 11           | male 32      | 2                        | 3                                        | not taken                                              | 3                                                                            | 7                                                                |                                                                              |
| 12           | female 30    | numerous                 | 21                                       | 84<br>101½° F.                                         | 2                                                                            | 13                                                               |                                                                              |
| 13           | female 29    | 0                        | 8                                        | 90<br>104° F.                                          | 3                                                                            | 14                                                               |                                                                              |
| 14           | female 6     | 0                        | 21                                       | 124<br>102° F.                                         | 14                                                                           | 27                                                               | Was in hospital two weeks after cure was established; no relapse.            |
| 15           | female 28    | 1                        | 8                                        | 124<br>102½° F.                                        | 4                                                                            | 38                                                               | Associated, when admitted, with pericarditis and meningitis.                 |
| 16           | female 30    | 1                        | 7                                        | not taken                                              | 3                                                                            | 7                                                                | Was suffering intensely when admitted.                                       |
| 17           | female 22    | 1                        | 3                                        | 120<br>103° F.                                         | 3                                                                            | 7                                                                |                                                                              |
| 18           | female 22    | 1                        | 7                                        | not taken                                              | 7                                                                            | 13                                                               |                                                                              |
| 19           | female 22    | 0                        | 21                                       | 113<br>103° F.                                         | 3                                                                            | 24                                                               |                                                                              |
| 20           | male 25      | unknown                  | 1                                        | P. not taken<br>103½° F.                               | 3                                                                            | 4                                                                |                                                                              |
| 21           | female 22    | 2                        | 1                                        | P. not taken<br>102° F.                                | 4                                                                            | ..                                                               |                                                                              |
| 22           | female 42    | 5                        | 21                                       | 100<br>103° F.                                         | 3                                                                            | 6                                                                |                                                                              |

Average number of days before P. and T. became normal after commencing treatment, 4.  
 " " " " discharge from hospital " " " " 14.

How it acts, or why it does thus and so, we have yet to learn, and at present must be satisfied with using it, as so many remedies are used, empirically, calling it, if you please, a specific; for its efficacy in the treatment of rheumatism is certainly as great as that of quinia as an antiperiodic, or mercury as an antisiphilitic remedy.

Clinically its effects are prompt and certain, often entirely relieving the intense tenderness and frequently excruciating pain within the twenty-four hours following the administration of the first dose, and reducing the temperature, also the heat, redness and swelling about the joints, in a marked degree, within the same length of time.

The statement that it is of little or no value after the temperature has become normal, needs considerable modification. In a number of cases in which its use was abandoned as soon as the temperature became normal, the articular trouble reappeared immediately, but was again readily brought under control by the readministration of the remedy.

The occurrence of peri- or endocardial inflammations, after the exhibition of the salicylic acid, must be very rare, as none of the cases under observation developed any cardiac lesion during their treatment. Upon this fact the value of salicylic acid in articular rheumatism can safely rest. The observations of Prof. Alonzo Clark show that during the first *five* days of the disease there exists the greatest tendency to the association of these lesions; and as we now have a remedy with which we can fully control the disease within *four* days, we must have a remedy which will greatly lessen the frequency of association with, or complication of peri- or endocarditis with acute articular rheumatism.

As a general pyretic, salicylic acid falls far short of what we were led to believe at the date of its introduction. In a number of patients suffering from acute inflammations (of non-rheumatic origin) coming under my observation, who were treated with salicylic acid to reduce the temperature, its use has resulted in so little benefit, that it had in all cases to be abandoned and the more potent quinia substituted.

## Reports of Hospitals.

### ST. FRANCIS' HOSPITAL.

SERVICE OF DR. JOSEPH W. HOWE.

#### STRANGULATED FEMORAL HERNIA TREATED FOR SIX DAYS AS A CASE OF OBSTINATE CONSTIPATION.

M. H., aged forty-two, occupation housekeeper, was admitted February 8th, with a certificate signed "Obstinate Constipation." Ten days previous to her admission she was taken with a severe pain in the right side, accompanied by nausea. Her bowels were constipated. Previous stools were small and light-colored. She applied at — Dispensary for relief, and was given medicine to move the bowels. They produced little or no effect. Three days subsequently vomiting commenced; there was with it sharp pains in the abdomen, jaundice, and great depression. Was still treated for constipation until admission.

On examination a well-marked hernia was found on the right side, which was painful to the touch and could not be reduced by taxis. The matters vomited consisted principally of fecal matter. Her extremities

were cold and clammy. Pulse frequent, feeble, and intermittent.

Patient was anesthetized and an incision made through the coverings in the long axis of the protrusion. The knuckle of intestine was about the size of a walnut, very dense, and had one small spot of gangrene the size of a pea at the extreme end. The stricture was at Gimbernat's ligament, and was readily divided.

Death occurred twenty-four hours after operation.

#### STRANGULATED HERNIA REDUCED EN MASSE.

J. S., *et. seventeen*, was admitted to the hospital January 31st. Seven years previously he was accidentally trodden upon by his mother. Shortly afterward a swelling appeared in the right groin; it gave him very little trouble until January 29th. While lifting some heavy weights on the morning of that day he felt a severe pain at the seat of rupture, and the tumor grew larger. Vomiting and violent pain in the abdomen supervened, which increased in severity every hour. In the evening a physician was called in, who attempted reduction of the hernia by taxis. He was apparently successful, but no diminution of pain or vomiting followed the treatment. The patient grew rapidly worse, and the next evening was admitted to the hospital.

At first sight it seemed as if the hernia had been reduced, for the swelling over the inguinal canal was very small. On palpation, however, it was found to be of considerable size, and so deeply situated that the neck of the sac could not be made out. The patient was anesthetized and an incision made over the inguinal canal and the gut exposed. It was then found that the constriction was almost a finger's length from the upper part of the inguinal canal, and situated within the abdominal walls; that the taxis previously mentioned had separated the sac and the hernia and its constricted neck from the inguinal ring, pushed it upward and backward under the walls. After considerable difficulty the stricture was reached and cut, and the intestine replaced. The incision was closed by sutures, an ice-bag placed over the lower portion of the abdomen, including the wound. Ten grains of quinine were given by the mouth and fifteen minims of "Magendie" hypodermically. Morphine, quinine, and ice were continued for one week; then the bowels were moved by enema, and simple water-compresses applied over the wound. When the wound was entirely healed, an *air-truss*, devised by Dr. Howe, was placed over the internal ring to support the parts until the new tissues had become firm. Patient left the hospital in good health.

#### EXTRAVASATION OF URINE BEHIND AN OLD STRICTURE.

This patient was forty years old, worked as a cook, and dated his illness twenty years back. He contracted gonorrhœa at that time, and was troubled with stricture ever since. Ten years ago he had retention, which was relieved with difficulty. Three weeks previous to admission he had great difficulty in emptying his bladder. With great straining he was able to get out enough water to relieve the irritation. Eighteen days of this difficult and painful micturition culminated in complete retention, intense pain over the bladder and perineum, and swelling of the genitals. Chills and rigors soon followed. He came to the hospital three days after the commencement of the retention. We found the perineum, scrotum, penis, and lower portion of abdominal walls distended with urine, and very painful on pressure. A few drops of urine and pus could be squeezed from the meatus



which latter opened on the under surface of the glans (hypospadias). Patient was bathed in profuse perspiration. Pulse was rapid and feeble, face anxious, and general condition was very bad.

Ether was administered, and attempts made to pass small sounds and filiform bougies, but without success. They were all stopped two inches and a half from the meatus. An incision was then made in the median line through the perineum, down to and through the urethra at the point of obstruction. A free flow of urine mixed with pus followed the incision. Ligatures were then passed through the mucous membrane of the urethra, held by an assistant on each side, and the walls kept apart by them. The stricture was very tight, and one side was torn at its lower part. After cutting this, the incision was carried on down to the bladder, and a large quantity of ammoniacal urine drawn off. Free incisions were also made in the scrotum, penis, and abdominal walls, from which considerable pus and fetid urine came. The wounds were washed with a carbolic solution, charcoal poultices applied, and quinine and morphine given internally.

Next morning patient felt much relieved, but his temperature was 105, and pulse 130. Under fifteen-grain doses of quinine it soon came down to 102, and on the fourth day after the operation temperature was 101, and pulse 110. Recovery took place slowly on account of the formation of small abscesses in different portions of the perineum and abdomen. Four weeks after operation urine passed through the penis, and two months from the time of the operation he was discharged cured, with the exception of a hard lump at the lower portion of the scrotum, which seemed as if it might at some future time soften down and form another abscess.

## COOK COUNTY HOSPITAL, CHICAGO.

(Reported for THE MEDICAL RECORD.)

### CANCER OF OVARIES AND PERITONEUM.

AMANDA S., colored, æt. about 65, had always enjoyed good health till about one year ago. She had borne several children and had always worked hard. About one year ago she began to have slight abdominal pains (low down), especially on partaking of a hearty meal. In six months she began to lose her appetite and would vomit occasionally. She also had some pains about her feet that appeared to be rheumatic. Late in the fall, just when, the patient was unable to say, her abdomen began to swell. She was not certain that the enlargement at its beginning was circumscribed in any part of the abdominal cavity.

She was admitted to the hospital in the latter part of February. At that time the abdominal enlargement was so considerable that serious dyspnoea was produced. The fluid character of the enlargement was easily established. The appetite was poor, the bowels regular, and slight general abdominal pains were complained of. The urine was normal. She was tapped March 13th, and a large quantity of a dirty brownish-red fluid was withdrawn. The fluid was rapidly reproduced, and the tapping was repeated April 16th, May 8th and 24th, and June 3d. The largest quantity withdrawn at any one tapping was two and one-half gallons; the smallest perhaps half that quantity. The fluid did not change in character with the successive tapplings. It was highly albuminous, contained an abundance of red blood-corpuscles, a few leucocytes, some small cells of pavement epithe-

lium, an abundance of granules and granular cells of all sizes and all degrees of granular infiltration. Many of these were pronounced by Dr. I. N. Danforth to be the cells of Drysdale, that have been supposed to be characteristic of the fluid of ovarian cysts.

After the evacuation of the fluid there were discovered by palpation several small nodular masses above and about the uterus, making altogether a mass not larger than the doubled fist. The uterus was pressed down upon the floor of the pelvis before the withdrawal of the fluid—less so after its evacuation; it was only very slightly movable, and its cavity was but about three inches in depth and was in the normal position. The patient died of exhaustion June 9th.

On *post-mortem* examination the peritoneal surface was everywhere dotted with little tumors of encephaloid cancer. They varied in size from that of a wheat kernel to that of a pigeon's egg. There must have been a thousand of them. Both ovaries were enlarged, each to the size of a hen's egg, and were in a condition of cancerous degeneration. There were several small cysts connected with the left ovary, no one being larger than two inches in diameter. Several cancerous masses were found connected with the fundus uteri; these were larger in size than most of those found upon the general peritoneal surface. Uterus, ovaries, bladder, intestines, and cancerous masses were bound together in a mass by what was evidently inflammatory exudation.

This case acquires its chief interest from the microscopic appearances of the ascitic fluid. The granular cell appears to be unreliable as an appearance diagnostic of ovarian cysts.

### MALIGNANT TUMOR OF BREAST.

IDA K., a housewife, æt. 38, German, was admitted to the hospital, January 10, 1878. She had borne several children, the last of which was a baby a little over a year old. This child she had nursed till three weeks previous to her admission. She had through life enjoyed unusually good health. She stated that eight months previously she had, while lifting a heavy wash tub, accidentally struck her left breast against the side of it, which caused some pain. She caught cold in the breast soon after, as she believed, and as a result a slight swelling occurred just above the nipple, that gave to the feel an impression of a tumor in the tissue of the mammary gland as large as a pigeon's egg. This was, to a very moderate degree, tender to the touch; it caused a slight blush of redness of the skin and it remained of the size mentioned until two months after the accident, when it began to increase in size, but slowly. It did not interfere with the free flow of milk from the breast, and she continued to nurse the child from this breast equally with the other.

Three weeks previous to admission she weaned her baby, and suddenly—the very next day—the breast began to increase very rapidly in size and uniformly over the whole mammary region. She also began to experience sharp lancinating pains in the part.

On admission the whole left breast was found enormously and uniformly enlarged and quite hard. It was of a dark purplish color, especially about the nipple, and would easily pit slightly on firm and sustained pressure. There were slight pains frequently experienced in the part, and the patient complained of its weight. The tumefaction extended beyond the breast and reached an inch or more above the mammary region, as far below it, and several inches to the left upon the surface of the thorax. In all these lo-

calities it presented itself as a hard, oedematous swelling, resembling the thickening of an erysipelas, but wholly without its redness and inflammation. The tumefaction did not extend to the right upon the sternum. The nipple was not retracted in the least. The exploring needle brought only milk and serum. One week from the date of admission the tumefaction had greatly increased in degree and had extended laterally nearly to the angles of the ribs, while it had advanced slightly upward and downward.

A week later she left the hospital. The sudden explosion of the swelling, its extension beyond the mammary region in so marked a manner, and its occurrence coincidently with the cessation of nursing, made this a case of peculiar interest. It was at first supposed that probably the sudden enlargement had been due to the occurrence referred to.

Word was brought to the hospital that a few days after her discharge the breast broke down in an enormous slough. She died March 4th, of exhaustion, general anasarca having supervened.

#### BILATERAL LACERATION OF THE OS UTERI, EVERSION AND ULCERATION—OPERATION—RECOVERY.

Mrs. S., German, æt. 30, was admitted to the hospital in November, 1877. She had, until one year before, enjoyed good health. She had menstruated at seventeen years of age, was married at twenty, had borne five children at term and had two still-births. One year before admission pain began to be manifested in the top of the head and back to the degree of producing great annoyance, and the menstruation came every two weeks. During the last few months the frequency had not been so great, and she had suffered less, but was not well.

She was found to have bilateral laceration of the os and cervix uteri, the posterior lip was everted to a marked degree, exposing a considerable surface of the cervical canal. Some superficial ulceration appeared upon the os and about the everted surface. The whole os and cervix were considerably swollen.

She was treated by Dr. T. D. Fitch, for seven weeks, with tampons of cotton saturated with glycerine, one being introduced every two or three days, and applications to the eroded surface once a week of a saturated solution of iodine in creosote. She also took tonics most of the time. At the end of this time there was noted a great improvement in the ulceration of the os and in the enlargement of the os and cervix. Accordingly, on January 3d, with the patient under the influence of ether, Prof. Fitch "denuded the lips of the cervix and brought them together with silver sutures, four on the right and three on the left side. The sound was passed and the canal found pervious."

The after-treatment consisted in washing out the vagina daily with tepid water.

In two days symptoms of erysipelas showed themselves. A slight erysipelatous patch appeared on the right cheek, and there was restlessness, with fever, and pains in the head (not in the uterus). She was given tincture of iron and quinine, and these symptoms disappeared in three or four days. The sutures were removed on the eighth day after the operation. The success of the operation was almost complete—the denuded surfaces having united firmly except at one point, where, near the surface, a small ulcer point was left unclosed. This spot healed in a few days with the aid of two applications of the solid nitrate of silver. The patient was discharged well February 1st.

## Progress of Medical Science.

PROVISIONAL REPORT UPON THE USE OF DEFIBRINATED BLOOD FOR RECTAL ALIMENTATION.—At a recent meeting of the Therapeutical Society the committee reported, through Dr. A. H. Smith, that some progress had been made upon this subject, furnishing material embracing two experiments and six cases. In the first experiment, of which the second was merely a repetition, nine ounces of defibrinated bullock's blood were injected into the rectum at 11 P.M., the bowel having previously been cleansed by an enema.

At 8 A.M. of the following day the contents of the rectum were voided, and consisted of less than two ounces of a semi-solid substance resembling currant-jam. When this was examined under the microscope it was shown to contain a large proportion of fecal matter and granular detritus, but scarcely a blood-corpuscle was to be recognized. In a case, the history of which was furnished by Dr. A. Hadden, the patient, suffering from cancer of the stomach, was nourished exclusively by the rectum for fifty-four days. During one week of this time the injections consisted of defibrinated bullock's blood, with occasionally a little brandy and milk. The blood answered completely the purpose for which it was employed, but the family objected to its use on account of the extreme fetor of the dejections. This was the only case in which this condition was observed. In another case it was calculated that of twenty-four ounces of blood administered daily, more than sixteen ounces were absorbed. The injections were usually retained well, in one case forty-eight hours. The committee state that defibrinated blood will be delivered at patients' houses by D. Harrington & Co., First Avenue and 43d Street, and by D. Blakeman, Manhattan Abattoir, foot of West 34th Street. If kept from the air and in a cool place it remains fresh for two days.—*N. Y. Med. Jour.*, July, 1878.

CHOLECYSTOTOMY—A NEW OPERATION.—Dr. J. Marion Sims has again the credit for introducing what appears to be an entirely new operation for the relief of a difficulty that is very hazardous to life, if not necessarily fatal (see Lect. by Prof. A. Clark, *MED. RECORD*, Aug. 3, 1878). The outline of the case is as follows:

An American lady of 45, who had been in perfect health for many years, began to have pain in the right hypochondrium last summer. In the autumn she became jaundiced, and a little later a swelling was noticed about the lower border of the liver. In January she began having discharges of blood from the rectum, which continued from various parts of the body during the whole period of her illness. Soon after the jaundice set in her whole body began to "itch and burn," and the suffering from these sensations prevented her from sleeping. Then great hyperæsthesia of the skin was developed, and there was "goose-flesh" roughness occasionally, with a sense of internal chilliness. No medication gave relief. The stools were clay-colored, except when bloody, and their odor was offensive. In February the urine had become scanty and bile-colored; the tumor increasing gradually in size. Dr. Sims advised aspiration, which was done, and thirty-two ounces of a dark-brown fluid evacuated. The operation was followed by favorable results. She slept all night, and had no itching or burning. There was no vomit-



ing, and pulse and temperature were normal. Still the urine was scanty. Two days later the old symptoms returned. When seen again about a month after the aspiration the tumor was now nearly as large as before. Regarding the case as hopeless, it was decided to cut down on the tumor, then empty its contents, and if it proved to be the gall-bladder, to attach its edges to the abdominal incision. Encouragement in the operation was gained by the fact that the aspiration gave relief, and the operation itself would simply be an imitation of the efforts of nature, in similar cases where recovery had taken place. Accordingly on April 18th "an incision three inches long, parallel with the linea alba," was made over the most prominent part of the tumor, about three inches to the right of the umbilicus. The incision commenced about an inch above the level of the umbilicus. When the peritoneum was opened, several ounces of pinkish serum were discharged. Puncturing the tumor with a Dieulafoy's trocar, twenty-four ounces of fluid were withdrawn. The cyst having been emptied, it was hooked up with a tenaculum and drawn out through the wound. Finding it to be the distended gall-bladder, it was cleansed, and sixty gall-stones removed. A portion of the sac was then excised, and the margins of the remainder sewed to the walls of the abdominal incision.

The whole operation was done with antiseptic precautions. On the day following the operation, the patient was free from pain and fever; she had slept, and had no nausea or vomiting. The urine had increased to twenty-five ounces in the twenty-four hours, and the stools even became natural. On the third day the wound was dressed under the carbolic-acid spray, and it was found to have healed entirely, but the urine had diminished in amount. On the fourth day the urine had increased in amount. On the sixth day the discharge from the wound was mixed with blood, which also exuded from the gums. This continued on the seventh day, when ergot and dialyzed iron were given, but without amelioration of the symptoms. On the eighth day she commenced to have "black vomit," such as occurs in yellow fever. She died eight days and six hours after the operation. At the autopsy, done by M. Ganai, there was no evidence of peritonitis, but in the gall-bladder were sixteen sacculated gall-stones. The gall-ducts of the liver were much dilated, as could be seen by the naked eye. After removal of the gall-bladder a probe could be passed through the ductus communis. The vomited matter submitted to M. Ranvier proved to contain in large part blood. The liquid in the distended sac did not contain bile, as is not infrequently the case. The lesson taught by this case, as summed up by the author, is: "In dropsy of the gall-bladder, in hydatid tumors of the liver, in suspected abscess of the liver, and in gall-stones, we should not wait till the patient's strength is exhausted, or till the blood becomes bile-poisoned, producing hemorrhages, but we should make an early exploratory incision, ascertain the true nature of the disease, and then carry out the surgical treatment that the necessities of the case may demand."—*British Med. Journal*, June 8, 1878.

**CHANGES IN THE URINE IN PARALYSIS AGITANS.**—Dr. Chéron believes that the appearance of the tremor in Parkinson's disease is preceded by a long prodromal period, marked by changes in the urine and by progressive loss of strength. The violent moral impressions, exposure to damp, cold, etc., which have hitherto been regarded as the primary causes of the disease, are, in his opinion, only accessory causes, that

determine the immediate outbreak of the affection, for which a profound nervous exhaustion has long been preparing the ground. All the intelligent patients who have come under his observation, eight in all, gave a history of general, progressive exhaustion, and of the passage of clouded urine for years before the tremor set in. In all of these cases the urine was carefully examined, and in all it presented the same characters. In two of them, which remained for a long time under his charge, the urine was examined regularly twice a week. The results of all these examinations show that the urine in Parkinson's disease is very abundant, sometimes double the usual quantity, and that the excretion of phosphates is increased, the quantity of phosphoric acid being often three times greater than normal, but that the increase of the sulphates is insignificant. This last fact is striking when we take into consideration the constant tremor and the fact that the sulphates are the results of muscular waste, but it is readily explained by the total absence of fever. Taking the principal constituents of the urine in order, Dr. Chéron found the urea normal or presenting only an apparent augmentation which was in keeping with the polyuria; the chloride of soda was normal; the sulphuric acid was rather below than above the normal average, except during a few brief intervals in one of the cases when the patient was obliged to do some fatiguing muscular work; the phosphates were greatly increased, the increase appearing at a time considerably anterior to the outbreak of the disease, and disappearing in the two cases that remained under treatment, *pari passu* with the general improvement.

In one of these two cases the water of the urine was double, and the phosphates treble the normal quantity, the other elements remaining at the ordinary figure. The tremor had appeared after a violent emotion, but the loss of strength and the cloudy urine had been noticed for over ten years previously. Under treatment by galvanism the quantity of the urine, and of the phosphates it contained, progressively diminished and finally got below the normal point; the frequent desire to urinate, the painful sensation of internal rolling and trembling, the articular pains and the muscular stiffness disappeared, the expression of hebetude diminished, walking became easier, and the mental activity increased. The patient can now read, talk, and sleep well, and can sit long at table. The tremor of the limbs has diminished and is no longer transmitted to the trunk.

In the other case the progressive exhaustion and abundant cloudy urine preceded the tremor by thirteen years. The changes in the urine were the same as in the preceding case. This case was treated by strychnine, bitter tonics, and preparations of phosphorus; the results obtained were favorable, but they were not so decided as in the case treated by galvanism, the quantity of phosphoric acid excreted always remaining considerably above the normal average.—*Le Progrès Médical*, Dec. 1, 1877.

**ENDARTERITIS.**—Under the direction of Prof. Küster, Dr. Trompeter has made a minute study of the process of endarteritis, and has arrived at the following results: The initial process in endarteritis is not a proliferation of the tissue, but an hypertrophy of the pre-existing elements, the cells as well as the inter-cellular substances. Further, a dilatation of the plasmatic channels (*saftkanälchen*) takes place. The existence of these channels can be positively demonstrated in the inflamed intima, and it is very probable that they also exist under normal conditions. A pri-

mary growth of the intima cells, according to Dr. Trompeter, cannot positively be demonstrated. An infiltration with lymph-cells is also never a primary process; it is always consecutive to the changes that lead to hypertrophy. Every endarteritis corresponds to a chronic inflammatory process in the muscularis, or in that and the adventitia together. The endarteritis does not precede, but follows the meso- or periarteritis; in the later stages the endarteritic thickenings may undergo vascularization, the newly formed vessels being derived from the vasa vasorum. The regressive processes in the endarteritic thickenings are in all probability due to endarteritis or arteritis of the arteriole nutritiva themselves.

Dr. Trompeter insists particularly on the point that the endarteritis is accompanied and even preceded by a corresponding mesarteritis, from the anatomical relations of which it is evident that it is an inflammation starting from the vasa nutritiva. The endarteritis is developed in isolated patches, and these correspond to the diseased vascular territories. He explains the sequence of the process in the following manner: A chronic irritation affects the vasa vasorum, in consequence of which a chronic inflammation is developed around them. As a result of the hyperæmia, these parts of the intima, which are nourished by the diseased vessels, are more abundantly supplied with plasma and undergo hypertrophy. Later on lymph-corpuscles make their way into the intima, and finally when the mesarteritic inflammation has reached or perforated the membrana fenestrata, vessels grow into the intima. Hence the abundant plexus of lymphatic vessels, demonstrated by Köster in the muscularis of the arteries, plays an important rôle in the explanation of endarteritis. As a result of the chronic inflammation, a number of the lymphatic vessels are obliterated, and as a necessary consequence the lymph accumulates, dilates the plasmatic channels, and causes hypertrophy, this dilatation and hypertrophy being really the only phenomena in the first stages of endarteritis.—*Allg. Med. Cent. Zeit.*, Dec. 22, 1877.

**DISLOCATION OF MUSCLES OR TENDONS, AND THEIR TREATMENT.**—Mr. Callender, of London, has directed attention to a class of surgical injuries that are often of great annoyance and pain to the sufferer, but of which we find little record in the experience of surgeons. Probably of all tendons that are luxated, the most common is the biceps, and next the quadriceps extensor, as in displacement of the patella. Then it is by no means rare to have the leaders about the wrist thrown out. In this latter case as in others, to insure absolute recovery, the reduction must be made within a few weeks, and the parts kept at rest for a month. The peronei may also be slipped from behind the malleoli or (not a rare accident) some one of the muscles of the back may be thrown out of relation to its fellows. An interesting instance is given in which a gentleman dislocated his pronator radii teres while playing lawn tennis. In making a back stroke the forearm was thrown into the extreme of pronation. The difficulty was recognized from the seat of pain, and the distress when the hand was moved in pronation. Pronation, however, was persisted in by the surgeon, and then extreme supination, while at the same time the hand, armed with a large pad, pressed firmly upon the muscle so as to force it into place. "If," says Mr. Callender, "you come across a case in which sudden or unusual movements of the body have been followed by pain—local in its character—made worse by certain movements, or presenting certain

movements, and especially if such pain be referred to the site of muscular digitations about the spine, or to that of comparatively slender muscles, as in the forearm, it is at least worth your while to try the simple measures which we may use for reducing the dislocation of a muscle: First, guided by the pain, decide as to the muscle or digitation of a muscle probably the seat of the trouble. Secondly, relax the muscle so far as you can. Thirdly, by firm manipulation, such as by rubbing with the hand, or by kneading with the thumb, endeavor to replace it. Fourthly, if this fail, make pressure over the part whilst you bring the muscle to action and put it on the stretch; and if the less painful measures have failed, this is almost sure to bring the muscle into position."—*British Med. Journal*, July 13, 1878.

**TREATMENT OF ASCITES BY ABDOMINAL COMPRESSION.**—Dr. Stephen Mackenzie has found compression of the abdomen to be a valuable agent in the treatment of the ascites dependent upon contraction of the liver. The compression accelerates the resorption of the fluid, when this has been initiated by other methods of treatment, such as purgation, diuresis, etc.; more than this, it seems to possess the power of exciting absorption without the intervention of other treatment. Dr. Mackenzie records the case of a woman who had suffered for a long time from ascites; she was much emaciated, and had œdema of the legs. After some preliminary treatment a flannel bandage was tightly applied to the abdomen; the pressure at first caused a feeling of sickness, but after a time the bandage ceased to cause discomfort, and appeared to afford relief. It was soon replaced by an elastic abdominal supporter, which was so made that it could be tightened to a considerable degree. The ascites gradually disappeared, and it has not returned, although nearly three years have elapsed since the patient was discharged from the hospital. In a second case the treatment was equally successful, although no internal remedies were used in connection with it. Dr. Mackenzie believes that, in spite of the abnormal condition of the liver in these cases, the recovery may be regarded as perfect, since the portions of the organ that remained healthy were sufficient to perform its necessary work. The secondary derangements, due to the mechanical obstruction to the circulation in the liver, were relieved by the diversion of the blood into other channels. The effused fluid is removed from the body through the kidneys, and hence it is essential for the success of the treatment that these organs should be healthy.—*British Med. Jour.*, April 20, 1878.

**TREATMENT OF ALBUMINURIA BY FUCHSINE AND ROSANILINE.**—Feltz and Bouchut have treated a small number of patients suffering from albuminuria with fuchsine and rosaniline, given in pills and mixture, in doses of three grains per diem. Under this treatment the albumen soon disappeared from the urine. They claim that these therapeutic trials prove at all events that both these coloring agents are well borne by the organism, and are relatively harmless.—*Deutsche Med. Wochen.*, No. 24.

**OIL OF ALEURITES TRILOBA AS A CATHARTIC.**—Dr. Oxamendi esteems the oil obtained from the aleurites triloba, known in Ceylon under the name of kekune oil, as the best substitute for castor oil. It has a pleasant taste like that of hazel-nut oil, and causes no unpleasant effects. Half an ounce is the dose for an adult; it operates in about three hours without causing pain or colic.—*Allg. Med. Cent. Zeit.*



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## THE YELLOW FEVER SCOURGE.

THERE is no doubt now that the terrible visitation we are now having is the most severe that has fallen upon us for many years, and its rapid increase and fearful intensity make the outlook for some of our Southern cities gloomy and sad indeed. According to the bulletin of the Surgeon-General's office, the disease had begun to assume an epidemic character in Havana during the early part of July, when there were some thirty deaths weekly, while at Matanzas and Key West it had appeared in a mild form. In the second week of the month the deaths at Havana had reached ninety-seven, but our great Southern ports had escaped. This was not to last long. About the 12th the first cases were reported at New Orleans, and spreading along the river towns of the Mississippi and its tributaries, or by the great rail lines, had reached Vicksburg, Memphis, Grenada, some inland towns, and even Cairo, Cincinnati, and Pittsburg.

Notwithstanding that rigorous efforts are reported to have been attempted in New Orleans, the disease could not be limited to the original focus of infection, but increased with terrible fatality, so that under date of August 25th there had been 2,029 cases with 610 deaths. According to the official reports in this issue, it will be seen that for the week ending August 24th, at noon, there had been 771 cases with 295 deaths in New Orleans, a greater mortality than in all the previous weeks combined. The disease had also assumed an alarmingly epidemic form at Port Gibson and Canton, and had reached Morgan City and Ocean Springs, Mississippi; while isolated cases were appearing at cities of the Southwest that had not as yet been visited. There seems to be nothing specially new in this particular scourge. Its method of advent, course, and fatality, are all known to us, and also its method of prevention, and yet it seems to have gone on for the most part unchecked by the precautionary measures that are known to enlightened civilization. Whatever

may be the theory as to the nature of the poison, we do certainly know the peculiar way in which it is transmitted, and the special soil which it requires for multiplication. If the reports are correct, however, there seems to have been no proper effort made to hem it in, and no timely precautions taken to prevent its obtaining a proper root. In New Orleans we are told that parts of the city which furnished alimient for the disease in 1853 are in 1878 in just as filthy a condition, if not more so. Houses seem to have been adapted to keep out the fresh air and to receive the foul emanations from the sinks, and garbage and offal in the back yards and alley-ways. The same picture is repeated in all the towns visited by the fatal plague. The history of the desolate and panic-stricken Grenada is a good though terrible example, which may be useful if it enforces a lesson that will be remembered.

This little town had long been noted for its beauty and comparative healthfulness. Situated in the northern part of the State of Mississippi, midway between Jackson and Memphis, over seventy miles distant from the great river, one would hardly have thought from its natural advantages that it would have been selected to bear a special visitation. In fact, until this year it had wholly escaped, and was only plagued by the malarial annoyances that belong to the Mississippi Valley. The little group of houses comprising the town of 2,200 inhabitants lies upon the Yalabusha river, a narrow, sluggish stream that empties into the Yazoo about twenty-five miles lower down, this latter river joining the Mississippi at Vicksburg. All of the buildings, with single exceptions, are gathered upon a few unvaried streets and may be compassed within a half square mile. The point of interest, however, is the town drain or sewer. This appears to be an ordinary ditch, only a few feet deep, running from the hill to the river, covered in places by logs and planks with a layer of earth, but often entirely open. It collects the drainage of stables, cesspools, and probably of privies. Not uncommonly the hogs, which appear to be the natural scavengers of the place, found their way into its convenient openings, and failing in their efforts to get out again, died, leaving their carcasses to rot and pollute the air.

As some complaint was made to the Mayor in July, men were employed to clean it, and they found, it is said, the bodies of several of these animals. As the bottom of the ditch was uneven, pools of filth formed at intervals. About July 12th (when the first cases were reported in New Orleans), a dressmaker was taken sick with a disease that was pronounced to be malarial fever, of which she died July 25th. Immediately before the attack she had received a dress from New Orleans, and several passengers from that city had put up at the Walthall House, close by. So much for the origin of the disease, which would appear to have originated in New Orleans and Grenada at about the

same time, and, in the absence of any explanation, would imply that, if the disease was imported, we may look for a third point, possibly Cuba, as the source from which it came. More important far, however, than this question, is that of the drain. The dressmaker lived very near it and the spot where it had been uncovered by the workmen. When the disease became epidemic, as it did a month later, it was observed that the cases were scattered thickly along the line of the drain, and the nearer to it the more fatal they were. This sketch of a Mississippi town is said not to be exceptional. All sorts of refuse is thrown into the streets or into the back yards and alleys, making the very conditions that are known to favor the outbreak of an epidemic.

Such an exhibit is the strongest argument we can offer to enforce both the necessity of having State Boards of Health and of having them realities, not in name, but in deed. If they were in existence in all our States, and in thorough working order, we might fairly expect that such epidemics as this one could never again occur. With every town properly guarded by sanitary officers, there could have been no such sacrifice of life; and if one or more towns did chance to be derelict in their duties, the State sanitary authorities could have taken them in charge, established local quarantines, and at least prevented the extension of an epidemic to their more orderly neighbors. Such, however, is not the case; and in the absence of it we earnestly recommend to the perusal of all physicians or local authorities in suspected or infected localities Surgeon-General Woodworth's circular to the officers of the Marine Hospital Service, as contained in our last issue. The views that he expresses have of course no "official force," but they are timely, well conceived, and should be regarded as a praiseworthy effort on the part of a government officer to disseminate very needful information in a time of great trial and peril.

It is understood that the medical officers of the marine service are restricted in their duties to external quarantine,—that is, to inspection and regulation of vessels coming into port from without. In all matters relating to internal or land quarantine and the health of cities they are "required to assist the local health authorities in all proper and practicable ways when requested to do so." Though it would thus appear that, under the provisions of the National Quarantine Act, the separation of the government from the local authorities is very clear, and the intervention of the former would only be by request, it may fairly be questioned whether, in the absence of any properly constituted local sanitary authorities, the government should not interfere in behalf of the whole country, which is thus put in imminent danger. If such were the case, we should not see in the official bulletin that the "steamer John A. Porter, from New Orleans, had four deaths from yellow fever before arriving at Cin-

cinnati, which city she passed on Friday bound for Pittsburg, with several cases on board," or that "the steamer Golden Rule passed Cairo yesterday evening for Cincinnati, with two cases of yellow fever on board. Two deaths occurred on board that vessel Thursday."

However wise it may be on the part of government not to intermeddle in these matters, we cannot fail to see that the absence of some strong hand, which is powerful enough to make and establish a land quarantine, is marked by a terrible sacrifice of life.

Much, however, may be done by each individual in an exposed locality. Absolute cleanliness should be maintained both in his person and surroundings; excesses of all kinds should be avoided; and not improbably prophylactics, such as the sulphate of quinine, iron, and chlorate of potassa, recommended by the Surgeon-General, may be employed with advantage. Further, as the disease appears to enter through the air-passages, disinfecting solutions may be applied in the form of sprays or the like. Fortunately we may comfort ourselves that there is little to fear from the unwelcome guest in our city. Yellow fever has, of late years, never taken any hold in this vicinity. Isolated cases may occur; but, with the prompt action of our Board of Health, and the presence of cool weather, we may regard ourselves as fairly out of danger's way.

#### THE MEDICAL STAFF OF THE ARMY.

WE receive from time to time so many inquiries regarding examinations for the army, that we are happy to state that an Army Medical Board will meet in this city during the months of October and November. There are eleven vacancies in the corps. For the information of those who may desire admission as assistant surgeons we publish the following conditions:

All candidates for appointment in the Medical Corps must apply to the Hon. Secretary of War for an invitation to appear before the Medical Examining Board. The application must be in the handwriting of the candidate, stating age and birthplace, and be accompanied by testimonials from professors of the college in which he graduated, or from other physicians in good repute. Candidates must be between twenty-one and twenty-eight years of age, and graduates of a medical college, having a thorough and complete course of medical education—evidence of which must be submitted to the Board before examination. The morals, habits, physical and mental qualifications and general aptitude for the service of each candidate will be subjects for careful examination by the Board, and a favorable report will not be made in any case in which there is a reasonable doubt.

The following will be the general plan of the examination:

I. A short essay, either autobiographical or upon some professional subject—to be indicated by the



Board. II. Physical examination. This will be rigid, and each candidate will, in addition, be required to certify "*that he labors under no mental or physical infirmity, nor disability of any kind, which can in any way interfere with the most efficient discharge of his duties in any climate.*" III. Oral examination on subjects of preliminary education, general literature, and general science. The candidate must satisfy the Board in this examination that he possesses a thorough knowledge of the branches taught in the primary schools, and a failure to show this will end his examination. Oral examination on scientific subjects will include chemistry and natural philosophy; and that on literary subjects will include English literature, history of the United States, and general history—ancient and modern. Candidates possessing a knowledge of the higher mathematics, the ancient and modern languages, will be examined therein, and due credit given for a proficiency in any or all of these subjects. IV. Written examination on anatomy, physiology, surgery, practice of medicine and general pathology, obstetrics, and diseases of women and children. Oral examination on these subjects, and also on medical jurisprudence, materia medica, therapeutics, pharmacy, toxicology, and hygiene. Few candidates pay the attention to hygiene which it deserves; it is made an important subject in this examination. V. Clinical examination, medical and surgical, at a hospital. VI. Performance of surgical operations on the cadaver.

The Board will deviate from this general plan whenever necessary, in such manner as they deem best to secure the interests of the service. It will report the merits of the candidates in the several branches of the examination, and their relative merit in the whole, according to which the approved candidates will receive appointments to existing vacancies, or to vacancies which may occur within two years thereafter. An applicant failing one examination may be allowed a second after one year, but not a third. No allowance will be made for the expenses of persons undergoing examination, as this is an indispensable prerequisite to appointment, but those who are approved and receive appointments will be entitled to transportation on obeying their first order.

It is unnecessary to say that the pay as Assistant Surgeon in the Army is much greater than any income which the young practitioner can reasonably command for the first few years of his career in civil practice. Not only from a professional, but from a pecuniary point of view, the Army should have a sufficient attraction for the hosts of young strugglers to more than fill the present vacancies with first-class talent.

We have such a high opinion of the professional requirements for admission to the medical corps, that we consider a successful examination a high honor to any young medical man, and have made it a rule to publish his name and grade accordingly.

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

#### SECTION ON OBSTETRICS.

*Stated Meeting, June 17, 1878.*

DR. SALVATORE CARO, CHAIRMAN.

#### SORE NIPPLES.

DR. F. V. WHITE directed the attention of the Section to his method of treating sore nipples. He received the idea from a patient. He had had between one and three thousand cases of confinement, consequently an extended experience in the management of that difficulty. He had resorted to almost every method of treatment, embracing the various local applications which had been recommended, but without satisfactory results. During the last eight or ten years he had employed the method suggested by his patient, and had come to regard it as specific, for, with only one or two exceptions, the plan of management, in his hands, had been uniformly successful. The plan was to simply protect the nipple with an ordinary nipple-glass, such as was worn to protect the nipples from the clothing. It could be secured in position by means of a bandage. The pressure of the glass upon the breast removed more or less of milk, which became a serviceable lotion for the sore nipple.

DR. HUBBARD remarked that he had employed the nipple-glass for several years to protect the breast from the clothing, but he had never used it for the cure of sore nipples. He had used it more as a protector against irritation. He had not, however, always succeeded in curing the nipple while using the glass. He had frequently questioned whether keeping the nipple constantly moist with milk was not injurious rather than beneficial.

DR. A. C. POST suggested that when the nipple-glass was employed, the hole should be so large that the nipple would not be at all dragged upon; the drawing should be from the breast, and not from the nipple.

DR. S. S. PURPLE remarked that when the nipples were simply sore, without excoriation, he had managed them successfully by making a local application of

|                  |        |
|------------------|--------|
| R. Tannin.....   | 3 i.   |
| Syr. acacia..... | 3 iij. |
| Aque.....        | 3 ij.  |
| M.               |        |

It could be applied to the nipple and breast with the finger, and should remain exposed to the air until perfectly dry. The glass could then be worn over the nipple to protect it from the clothing, and he usually had no trouble in the management of the case.

DR. E. F. WARD said that local applications, such as nitrate of lead, tannin, etc., had, in his hands, been rather disappointing in the treatment of sore nipples. For several years he had not used any local application to the breast or nipple, but had directed the woman to use a nursing-tube, consisting essentially of a glass shield with a broad brim, and an opening sufficiently large to admit the nipple without constriction, and a rubber tube with a mouth-piece attached. The glass shown by Dr. White he also used to protect the parts from the clothing, but had not used it to cure the nipples. He had experienced little or no difficulty in managing his cases successfully.

Dr. O'SULLIVAN had not for many years used local applications in the treatment of sore nipples. His method of treatment had been to keep the nipple perfectly at rest, never allowing the child to nurse unless the nipple was protected. He had used the nipple-glass as a protector from irritation.

Dr. KENNEDY thought the nipple-glass did nothing more than protect the breast from irritation produced by the clothes. So far as treatment of the sore nipple was concerned, he usually left it to the experience of a physician or to the experience of the nurse, however poor that might be.

Dr. CARO remarked that the nipple-glass was used extensively in Sicily, but simply to protect from irritation produced by the clothes, and not for the cure of the nipple. He thought local applications were of no avail. To give the nipple perfect rest was the best treatment. To protect the nipple from irritation, he had used the glass shield very extensively.

In cases in which it was desirable to keep the air from the nipple, he had found gold-beater's skin to be the best application. The idea of keeping the nipple wet with milk was objectionable on the ground that the milk itself was soon so changed as to be a source of irritation; consequently, the cleaner the nipple could be kept the better. If local application was to be made, pure cold water was all that was necessary. The paramount principle in the treatment was perfect rest for the nipple.

Dr. O'SULLIVAN remarked that he had used cold water, and associated with it glycerine, which was very soothing. The main element in the treatment, however, was rest.

Dr. COMPTON said that he had seen the following mixture act very favorably as a local application:

R. Tr. benzoin co.,  
Glycerine, aa.

M.

To be applied just after the child had nursed, and wiped off before nursing was renewed.

#### MANAGEMENT OF THE BREASTS IN CASES IN WHICH NURSING IS NOT ADOPTED.

Dr. HUBBARD asked the question, What should be done for the breasts in cases in which the child was still-born, or the mother not disposed to nurse her child? His practice had been to let the breasts entirely alone, and he had yet to see a mammary abscess following that method of management. He had recommended that method in the Infant Asylum, where most of the mothers were not disposed to nurse their children. He was at first opposed by his colleagues, but finally they consented to give the plan a trial, and during his entire connection with that institution there was not a mammary abscess formed. The method, however, wherever recommended, met with opposition from nurses and friends, and it was with the greatest difficulty that the physician could prevent drawing milk from the breast. The pain in the breasts, if any was present, as a rule subsided within twenty-four or forty-eight hours, and no further trouble was experienced if no attempt whatever was made to draw the milk. If the milk was drawn only once, the character of the case was entirely changed.

Dr. WARD remarked that it had been his practice in such cases not to draw the milk at all, and he had found that the pain ceased within one or two days.

Dr. O'SULLIVAN said that it had been his practice not to interfere with the breasts under the circumstances mentioned. He had seen only the most favor-

able results follow, when a rigid adherence was given to the method.

Dr. PRUDY remarked that his experience had been in accord with Dr. Hubbard's. If the condition of the patient warranted it, he usually administered a brisk cathartic—indeed, kept up a slight diarrhoea for a few days—and thought it caused the milk to disappear more rapidly than it otherwise would.

Dr. HUBBARD thought that, in accordance with a somewhat late suggestion, a bandage could, with advantage, be applied with the view of preventing the formation of milk.

Dr. MUNDÉ referred to suppurative mastitis which had occurred in cases in which the bandage was used. His general practice was to let the breasts entirely alone. He had used belladonna, but did not think it necessary. It was soothing, however, and was not specially objectionable.

Dr. CARO believed that where the woman proposed not to nurse, it was the best treatment to let the breasts alone. But suppose the woman wished to nurse, and did nurse the child from one breast, and was unable to nurse from the other breast, what should be done? For example, a woman came under his care who had had the right nipple completely destroyed by a burn when a girl. She nursed her child from the left breast, and after three or four days there was considerable fever, and she complained of considerable pain over the right breast. Upon examination, it was evident that secretion of milk had been begun in the right breast, and he thought it necessary to resort to some means for its arrest. He applied fluid extract of belladonna twice a day for five or six days, and all evidence of milk disappeared. Whether the result was due to the belladonna or not he was unable to say.

#### PREMATURE LABOR AND FIFTY PER CENT. OF ALBUMEN IN THE URINE.

Dr. HUBBARD remarked that the idea had lately been brought forward that, in cases of pregnancy in which fifty per cent. of albumen was found in the urine, premature labor should be produced as a prophylactic against puerperal convulsions. He protested strongly against such doctrine.

#### PILOCARPIN AS AN OXYTIC.

Dr. MUNDÉ alluded to observations which had somewhat recently been made with reference to the occurrence of premature labor while pilocarpin was being used as a diaphoretic in the treatment of the albuminuria of pregnancy. The result of the observations was such as to give warning against the indiscriminate use of the drug in cases in which it was not desirable to produce premature labor.

Dr. A. C. POST reported a case of

#### EXCESS OF LIQUOR AMNII FOLLOWED BY INERTIA OF THE UTERUS.

The labor was regular, the child was born rather suddenly, and was followed by an enormous discharge of liquor amnii. The sudden cessation of the distention was followed by uterine inertia, which was soon overcome by manipulation and ergot. The chief point of interest was the liability to the occurrence of inversion or hemorrhage.

#### TRIPLETS.

Dr. MUNDÉ gave a brief history of a case in which triplets were born. It was the woman's fifteenth confinement. The children were all girls. The first two were vertex presentations; the third presented trans-



versely, back forward, but the position was without difficulty changed by external version.

The aggregate weight of the children was seventeen and a half pounds. The mother made a good recovery. The children did well for a time, but in the course of one year all died of infantile diarrhoea. They were enclosed in *two* amnions and one chorion, a fact which explained the additional fact that they were all of the same gender.

Dr. Compton referred to the observation which had been made, that twins and triplets were usually preceded by several pregnancies.

#### PREMATURE LABOR IN A CASE OF PHTHISIS ATTENDED BY BRONCHIAL HEMORRHAGE.

Dr. O'Sullivan referred to a case in which premature labor occurred at the seventh month, and soon after a serious bronchial hemorrhage in connection with phthisis. The labor was normal, and the child lived twenty-four hours. He raised the question, Was there any relation of cause and effect between the bronchial hemorrhage and the premature labor?

Dr. Mundé thought there was probably no connection between the premature labor and the bronchial hemorrhage. There might be a connection between the phthisis and the premature labor, chiefly with reference to improper aeration of the blood.

#### ARM AND FUNIS PRESENTATION.

Dr. Compton related a case in which he found, upon his arrival at the bedside, an arm and a loop of the umbilical cord presenting. He pushed the arm up, and was soon gratified in finding that the head of the child was presenting. He pushed the loop of cord up, but, as soon as the fingers were removed, it returned. He placed the woman in all positions favorable to retention of the cord within the uterus, but all to no avail. The Doctor held the cord in place, with his hand in the vagina, for three hours. The labor continued; the woman began to show signs of exhaustion; his forceps were sent for, but under the influence of ergot, and before their arrival, the child was born alive, and did well.

Dr. Mundé remarked that in antero-posterior narrowing of the pelvis, prolapse of the funis was of frequent occurrence, and the cord would not remain when replaced in the uterus.

The Section then adjourned, to meet on the third Monday in September, at which meeting Dr. F. V. White is to read a paper on "Sore Nipples."

### MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, June 24, 1878.*

Dr. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### POTT'S DISEASE—ITS PATHOLOGY AND TREATMENT.

Dr. NEWTON M. SHAFFER read a paper upon the above subject. He began with the statement that opportunities for post-mortem examination in the early stages of Pott's disease were rare, and that he had never seen a case of acute Pott's disease. No one had attempted to trace the symptoms of spondylitis in its acute stages. It was typically chronic. It was so typically chronic that it was always difficult to decide in each case exactly at what time the disease began. He divided Pott's disease into four stages:

1. The prodromatous stage, which was indistinct, liable to escape attention, and was characterized by

slight indisposition upon the part of the patient, that might continue for only a few days or for months, and sometimes was wanting.

2. The stage of pain, which was often described as the first stage. It was usually preceded and accompanied by reflex spasm of the spinal muscles due to irritation of the peripheral nerves.

3. The stage of deformity, due to want of substance in the vertebrae and intervertebral bodies.

4. The stage of abscess.

Paralysis of the lower extremities had been classed among the symptoms of the third stage.

Dr. Shaffer divided the cases of Pott's disease into two classes: 1. Suppurative; and, 2. Non-suppurative.

The non-suppurative variety occurred most frequently in the dorsal region.

The suppurative form of the disease occurred most commonly among children.

#### PATHOLOGY OF LATERAL CURVATURE OF THE SPINE.

Referring to lateral curvature accompanying Pott's disease, Dr. Shaffer expressed the opinion that in all cases of lateral curvature of the spine there existed at some point in the spinal column disease of the bones. He did not regard simple loss of balance of muscular power as a satisfactory explanation of the condition found in lateral curvature.

Again, idiopathic scoliosis was not likely to be developed simply because of unequal length of the lower extremities.

Primarily, muscular contraction might be the cause of lateral curvature, but the question remained, what was the change which produced the muscular contraction?

#### PATHOLOGY OF POTT'S DISEASE.

The parts involved in angular curvature of the spine were bone, cartilage, synovial membrane, and ligament. The fibrous capsule was excluded because it was rarely the seat of primary inflammation. In the absence of any facts with reference to the seat of the primary lesion in Pott's disease he considered it from the standpoint of clinical experience. Preparatory to a complete understanding of the significance of symptoms, Dr. Shaffer reviewed the anatomy of the bones, the intervertebral cartilages, the synovial membrane and the ligaments, and the conclusion was reached that the most important symptoms of Pott's disease were those which came through the medium of the nervous system. He believed he was the first to call attention to the fact that chronic joint disease might exist in any given articulation tissue, which was sparsely supplied with nerves, without producing any subjective symptoms. The neural symptoms in Pott's disease, therefore, were the most important as indicating the seat of the primary lesion, because they depended directly upon disease of the bone. The synovial membrane might be diseased for a long time before any symptoms would be developed, and the cartilages became diseased in consequence of disease of the bone. Until the bone was involved reflex muscular spasm did not occur, and reflex muscular spasm always indicated osteitis. The bone was a structure abundantly supplied with nerves, and when affected gave rise to neural symptoms; hence their importance. Reflex muscular spasm was not conservative as we had been told, but depended upon pathological change affecting the bony structure of the spinal column.

In fact, there was but little difference between idiopathic spondylitis and idiopathic disease affecting any of the large joints.

## TREATMENT OF POTT'S DISEASE.

With reference to treatment, Dr. Shaffer believed it to be impossible to apply continuous extension and counter-extension, which could be maintained with any degree of success. He also believed there was no assurance that the extension reached the bones; regarded the change which took place in the projection as due to the effect produced upon the projection itself; thought it was more apparent than real, and was due to the distensibility of the normal tissues and the obliteration of the compensatory curve; and that there was no actual lengthening of the vertebral column, except what was permitted by the elastic ligaments. Further, he thought that lengthening out the spinal column was of no avail, because the space would not be filled with osseous material, that the column would sink back again, and that relief of symptoms and curing the case were two different things. Suspension and retention by means of the gypsum splint was no more likely to cure caries of the spine when applied to the trunk than when applied to any other portion of the body. Again, his experience had taught him that too much should not be expected from rapid improvement. The treatment by suspension and the plaster dressing did not prevent motion at the point where the disease existed, and, although it might place the patient in a condition favorable to recovery, the result not infrequently was just to the contrary. If Pott's disease was of traumatic origin, no doubt but that speedy cure would follow almost any plan of treatment.

He had had considerable experience in the use of the plaster jacket, and other methods of support, and he did not believe that any apparatus was capable of affording such uniformly good results as had been claimed for the gypsum dressing. As a support it failed when the disease was above the seventh dorsal vertebrae, and the bar running over the head from which support was to be made when the disease was higher up in the spine, was inoperative as a means of extension, and ungainly to the sight when compared with the apparatus devised and employed by Dr. C. Fayette Taylor. For disease of the vertebrae above the seventh dorsal he had discarded the plaster jacket, and in the treatment of disease below that point sufficient support could be given by almost any apparatus. Indeed, as had been stated, the vertebrae in that region were much less liable to become diseased than those higher up. The objections to treatment by means of the plaster-of-Paris jacket were, the great weight of the dressing, the difficulties and dangers attending its application, the liability to produce chafing and excoriations, which might be developed at any point, and go unrecognized until they became serious complications; the necessity of making suspension at each time the apparatus was removed; the great filth; and the nidus which it afforded for vermin. Dr. Shaffer regretted that he found so little to commend it to the use of the general profession. The country practitioner and the village blacksmith could apply the antero-posterior support as well as the plaster, and the advantages claimed for it were ease of adjustment, ease with which it could be removed, modified to suit the case and readjusted, the concentration of support for the diseased portions of the spine through the medium of the transverse processes without interfering with the muscles of respiration, and finally cleanliness. For those who could afford the steel apparatus there was no necessity for the plaster application. The form of apparatus which Dr. Shaffer thought best adapted to the treatment of Pott's disease, was a combination of Taylor's

brace and the gypsum dressing. [The proposed combination was not described.]

Dr. Shaffer then presented a number of patients who had been treated and cured by means of the antero-posterior support.

One patient was presented who had been under treatment for hip-joint disease ten weeks before he came under Dr. Shaffer's observation. There was no deformity of the spine present when Pott's disease was diagnosed, and the antero-posterior support applied. The patient, a child, had worn the instrument thirteen months. There was then (at the time the patient was presented) a visible projection of the spinous processes, showing that the diagnosis was correct.

The paper was accepted by the Society, and being open for discussion,

DR. LEWIS A. SAYRE remarked that, so far as the pathology of the disease was concerned, he had no criticisms to offer, but with reference to treatment he differed very essentially with the author of the paper. He had in his possession between seventy-five and one hundred braces which had been worn by patients in all stages of the disease, and he was not aware at the time of their removal when the disease commenced or when the patients began to wear the instruments, but at the time they were removed the disease was progressing. Those were cases which had formerly been under the care of other surgeons. In all the cases in which he had first used the brace himself, the deformity had steadily increased. The patients had recovered, it was true, and so also would they recover when kept in a horizontal posture, and many of them recovered without any treatment whatever, but recovery took place *with* deformity.

In the last patient presented by Dr. Shaffer there was no deformity when the instrument recommended by the doctor was applied: but it had been worn thirteen months, and at the end of that time there was a conspicuous deformity. Dr. Sayre's own experience had been the same, namely, that recovery took place while the children were wearing the brace, but that the deformity steadily increased while under treatment. When Dr. Taylor's brace was first devised, it was the best instrument we had up to that time, but the addition of the neck-yokes prevented the child from becoming straight, set aside one of the fundamental principles underlying the successful treatment of Pott's disease, namely, gentle extension, and was one explanation of the occurrence of some of the hideous deformities which he had seen developed while the instrument was being worn.

Again, the brace was objectionable because it made upon each side of the spine such pressure as interfered with a proper blood supply, and thus favored a long continuance of the disease.

Dr. Sayre believed that Pott's disease could be cured without deformity if gentle suspension and the plaster jacket were employed before deformity existed: that if deformity was present, it could be kept from increasing, and in many cases diminished by the same means.

The idea that whatever repair had taken place was broken up every time the jacket was applied or suspension made, was a false impression, and the idea advanced by Dr. Shaffer, in that respect, was not correct. If, as Dr. Shaffer claimed, chafing and excoriation was a common occurrence, it was due to either an imprudent or an improper application of the plaster dressing, and if such accidents had habitually occurred in his experience in its use, it was evidence that he (Dr. Shaffer) did not properly apply it.



With reference to filth and vermin, Dr. Sayre's patients had never complained of anything of the kind, nor had he seen any cases in which such complaint could be reasonably made.

Dr. V. P. GIBNEY remarked that he had never made a post-mortem in a case of Pott's disease without finding at some place a sac containing bony detritus or inspissated pus.

He had seen cases in which the vertebræ were diseased without involving the synovial membrane at all, the origin being in a simple osteitis.

Dr. SHAFER remarked that he had found the antero-posterior support an effective instrument in the treatment of Pott's disease; that he had employed the plaster treatment without prejudice, and had given the result of his experience in a conscientious manner. The Society then adjourned.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 18th to August 24th, 1878.*

BROWN J. B., Major and Surgeon, President of Army Medical Examining Board, New York City. Relieved from duty in the Military Division of the Atlantic. S. O. 180, C. S., A. G. O.

WHITE, C. B., Major and Surgeon. Granted leave of absence for one month on Surgeon's certificate of disability. S. O. 179, A. G. O., Aug. 19, 1878.

CAMPBELL, A. B., Capt. and Asst. Surgeon. Granted leave of absence for three months from Aug. 9, 1878, on Surgeon's certificate of disability. S. O. 182, A. G. O., Aug. 22, 1878.

TORNEY, G. H., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Wingate, New Mexico. S. O. 150, Dept. of the Missouri, Aug. 20, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 24, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Aug. 17, 1878. | 0             | 20             | 29             | 1                          | 6        | 23          | 0          | 1             |
| Aug. 24, 1878. | 0             | 22             | 35             | 2                          | 1        | 27          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., August 24, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during past week under the National Quarantine Act:

*New Orleans.*—During the week ending yesterday noon there were 771 cases of yellow fever and 295 deaths, making in all 1,673 cases and 534 deaths. During the twenty-four hours to noon yesterday there were 123 new cases and 40 deaths.

*Vicksburg.*—At least 400 cases of yellow fever from date of commencement, Aug. 12th, to yesterday evening, and 69 deaths; 20 deaths during last twenty-four hours. Dr. Booth, in charge of the Marine Hospital

Service at that port, telegraphs: "I am sick; impossible to procure accurate data."

*Memphis.*—One hundred and forty-four cases of yellow fever and fifty-three deaths during six days to Friday evening.

*Canton, Miss.*—First case of yellow fever occurred at Canton on August 1st. To yesterday evening there were eighteen cases and eight deaths.

*Port Gibson, Miss.*—First case of yellow fever, originating in Port Gibson, occurred Aug. 3d, resulting in death Aug. 8th. The disease began to spread Aug. 14th. One hundred and eighteen cases and nine deaths to yesterday morning.

*Cincinnati.*—To yesterday evening no more cases of yellow fever had developed at Cincinnati since the two mentioned in the last report. The engineer of the steamer "Golden Rule" was admitted to hospital the 22d inst. with yellow fever, and also one other case, probably yellow fever, from Memphis.

*Morgan City, La.*—One case of yellow fever, Aug. 21st, patient from New Orleans.

*Ocean Springs, Miss.*—Three cases of yellow fever and one death, all imported.

*St. Louis.*—Four refugees died of yellow fever at St. Louis during past week.

*Louisville.*—Four river boatmen suffering from yellow fever are under treatment in an improvised hospital on the Marine Hospital grounds, admitted from steamers "John Porter," "Sunflower Bell," and "Golden Crown," on the 17th and 18th insts.

*Mobile.*—The case reported as yellow fever Aug. 16th is now officially announced as probably a mistake. Dispatches to 23d inst. report good health.

*Key West.*—No yellow fever for three weeks to yesterday evening.

*Grenada, Miss.*—So many of remaining population stricken with the fever that definite information of number of cases and deaths could not be obtained.

*Havana.*—Ninety deaths from yellow fever and six of small-pox, week ending Aug. 17th.

*Matanzas.*—Decreased cases of yellow fever. Only five American vessels in port Aug. 16th, and all of them have either had or were having cases of yellow fever on board.

*Cardenas and Sagua la Grande, Cuba.*—No yellow fever. Advices to 16th inst.

*Bombay.*—Thirty-three deaths from cholera, and fifteen from small-pox, week ending July 2d.

*Calcutta.*—Nineteen deaths from cholera, and thirty-six from small-pox, week ending June 22d.

Reports from other places indicate good health.—JNO. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

REPORTS up to the morning of August 28th indicate that on the preceding day Memphis was at its worst, the deaths from fever numbering 32. On the same day, in New Orleans, there were 194 new cases and 49 deaths, showing no abatement in the epidemic there. In response to an appeal for government aid, from Vicksburg, the Secretary of War has sent rations and medical stores for 2,000 persons for twenty days, provided the route is open from Chicago to Vicksburg. The deaths in the latter city on August 26th numbered 23.

A YELLOW FEVER COMMISSION.—A number of the most prominent citizens of Memphis have petitioned President Hayes to appoint a commission of the ablest physicians and chemists to make a scientific investigation into the "cause, nature, treatment, and future prevention of the fearful epidemic now raging."

**A NEW DISEASE.**—According to reports from Readville, Mass., several of the operatives in a curled hair factory have died of a disease supposed to have been introduced with the hair of diseased animals, principally Siberian horses.

**A NEW KIND OF INDEX RERUM.**—E. P. Hurd, M.D., of Newburyport, Mass., writes: "For the benefit of junior practitioners I will describe a plan which I have pursued for several years, of rendering available for emergencies in practice facts which I have noted in my reading of contemporary medical publications, but the details of which cannot be trusted to treacherous memory. An index rerum, properly so called, I have never kept.

"It is supposed that every physician has favorite works which he is in the habit of consulting frequently. Some good text-book on practice (Flint, Aitken, Hartshorne); on surgery (Gross, Erichsen, etc.), obstetrics (Hodge, Cazeaux, etc.). These constitute his 'index.' We will suppose that he is in the midst of an epidemic of diphtheria. It will be of inestimable benefit to him if he has at hand, for ready reference, hints as to pathology, treatment, etc., which he has gleaned from medical journals, and medical writings in general, for a series of years. To illustrate my method, I turn to Flint's Practice, p. 936, article Diphtheria. I find the following marginal notes, written with pencil: 'See Smith's article on Diphtheria, *Am. Journal Med. Sciences*, Oct., 1877.' [Here follows a brief summary of his treatment.] 'See *Bost. Med. and Surg. Journal*, Feb. 3, 1876; see *Med. Record*, March 11, 1876; also *M. R.*, Vol. XII., page 120; also *M. R.*, Vol. XIII., page 21.' Under the head 'Valvular Lesions of the Heart' I find references to Moxon's Lectures in the *Lancet*, 1878, Flint's Lectures in *Med. Record*, 1877, etc., with brief notices of hints for treatment there laid down. There is scarcely a page in my Flint that is not marked over in this way, and these marginal pencil-notes save a great deal of work when I wish to review the literature of a medical subject. I might say the same with reference to my Dewitt, Barnes, Cazeaux, Stillé. Of course, this spoils my books for every one but myself, unless my successor (whoever he may be) shall consider my marginal and foot-notes of some consequence to himself. I never read my *Record*, *Lancet*, Braithwaite, etc., without at the time transferring, in the form of pencil-notes, to favorite text-books, any hint which I may deem specially worthy of remembrance. This takes little time, and is just as good as any more formal index rerum. All my journals are carefully preserved and bound at the end of the year.

"I never can sufficiently regret that I did not commence practice in this way, putting the results of daily reading, in brief compass, each in its proper 'niche,' where the memory may be refreshed by referring to them, when such review is most needed."

**SPIRITUAL MEDICINE.**—Hitherto it has generally been believed by people of every sort of faith that when a man has once become "*victima nil miserantis Oris*," he has no longer any need of doctors, and that when the physician himself is about to take his departure for the land of the hereafter, he might with propriety be permitted, if he so desired, to indulge in some such valedictory to his pocket-case and the various articles of the pharmacopœia (to say nothing of such familiar companions as chicken-pox, measles, and whooping-cough), as when, Othello's occupation being gone, he bade farewell to such eloquent words to the neighing steed, the shrill trump, and all the

rest of the pride, pomp, and circumstance of glorious war.

But now, it seems, the spiritualists have changed all that: so that there may be the consolation to certain unlucky practitioners who don't get along very well in this world, that they may have a chance to retrieve their fortunes in the next. In their recognized organ, the *Banner of Light*, published in Boston, there appears the advertisement of a certain Mrs. Danskin, of Baltimore, from which we learn that the late distinguished Benjamin Rush, of Philadelphia, is still pursuing the vocation upon which he reflected so much honor during his terrestrial career, and that he seems to have entered into a sort of professional partnership with the lady named.

Her card reads as follows: "During fifteen years past Mrs. Danskin has been the pupil of, and medium for, the spirit of Dr. Benjamin Rush. Many cases pronounced hopeless have been permanently cured through her instrumentality. She is clairaudient and clairvoyant. She reads the interior condition of the patient, whether present or at a distance, and Dr. Rush treats the case with a scientific skill which has been greatly enhanced by his fifty years' experience in the world of spirits. Application by letter, enclosing consultation fee of two dollars, and two stamps, will receive prompt attention."

From the above, while we learn that the Doctor is engaged in the practice of his profession among the unsubstantial shades, one would also infer that there is not sufficient work among his present clientèle to occupy all of his time, and so he has been prevailed upon (in what way it is not stated) to devote a certain amount of his leisure to imparting to the clairaudient and clairvoyant Mrs. D. such assistance in her professional labors as the benefit of his now very high scientific attainments and extended experience may be capable of conferring.

**CHLORAL-PLASTER.**—Dr. Solari recommends chloral-plaster as a sedative and counter-irritant in the treatment of the pains which are due to catching cold, such as lumbago and pleurodynia, and also of those which are due to neuralgia and to syphilis. Pix burgundica is spread on a piece of plaster large enough to cover the painful part, and from fifteen to thirty grains of powdered chloral are then strewed over every square four inches of the plaster. This is left on from twenty-four to forty-eight hours; on removing it, small vesicles will be seen on the skin, which should be pricked and covered with cerate. The blister heals quickly, but not so rapidly as the pain disappears.—*Allg. med. Cent.-Zeit.*, June 19th.

**PERCHLORIDE OF IRON AS A TOPICAL APPLICATION FOR CHANCER.**—In an article on iron, in the *Dictionnaire Encyclopédique des Sciences Médicales*, M. Rollet gives the two following formulas for topical use in cases of chancre:

|                            |                       |
|----------------------------|-----------------------|
| R. Aquæ.....               | 3 vi. (24 grammes).   |
| Ferri perchloridi...       | 3 iij. (12 " ).       |
| Acidi citrici.....         | 3 i. ( 4 " ). M.      |
| and R. Acidi hydrochlor. } |                       |
| Acidi citrici.....         | āā 3 i. ( 4 grammes). |
| Ferri perchloridi. }       |                       |
| Aquæ destillatæ...         | 3 i. (32 " ). M.      |

DR. HARWOOD WAKEMAN, who died recently by drowning in Blue Mountain Lake, in the Adirondacks was a member of the County, Pathological, and Neurological Societies. He was a faithful and earnest worker in his profession, and his loss will be deeply felt by all who knew him.



## Original Lectures.

### NERVOUS AND MUSCULAR DISORDERS IN CHRONIC ALCOHOLISM.

A CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL.

By WM. H. THOMSON, M.D.,

PROFESSOR OF THERAPEUTICS AND MATERIA MEDICA IN THE  
MEDICAL DEPARTMENT OF THE UNIVERSITY OF  
THE CITY OF NEW YORK.

GENTLEMEN:—The cases which we present to you to-day illustrate a number of facts in connection with the production of nervous and muscular disorders in chronic alcoholism. This is quite a different morbid condition from acute alcoholism, for not only may its worst results be found in patients who never once in their lives had an attack of delirium tremens, or even been thoroughly intoxicated at any one time, but the lesions accompanying each respectively may contrast as widely as the lesions of an acute pneumonia contrast with those of fibroid phthisis.

Now, when the symptoms present are of a nervous character, they often resemble so closely the symptoms of certain specific nervous diseases that it is easy to be misled both as to the nature and the treatment of the case. As alcohol may occasion irritation or inflammation of the meninges almost anywhere in the skull or along the spinal canal, or interstitial and perivascular changes within the nervous pulp itself, therefore there can scarcely be any form of nervous disease, mental, motor, or sensor, which its effects will not simulate in the symptoms produced. There is this practical point, however, to be borne in mind: that, in the majority of cases, nervous disorders caused by alcohol alone are curable. The prognosis is good compared with the same class of affections due to other causes, provided you find out in time that it is alcohol which is working the mischief, and can stop it. Now, here in the hospital we can bluntly ask the patients how long and how much they have been drinking; and if they claim to have been temperate, we can easily tell them that we do not believe it. But in private practice the inclination, of beginners at least, is to fall in with the most favorable estimate of their patients, and to accept their statements readily, so that on this account the true cause of many obscure disorders is frequently overlooked. Longer experience will show you that chronic drinkers are characteristically deceitful in their statements about either the quantity or the kind of their beverages, and, moreover, that one of the most mischievous kinds of drinking, that of constant tippling, may be carried on for years without the patient seeming either to others or to himself as a drunkard. To enable you, therefore, to recognize and test the influence of alcohol in the production of a particular nervous disorder, *i. e.*, loss of vision, paraplegia, etc., it is well to bear in mind some symptoms of chronic alcoholism which you may note for yourself or elicit from your patient without his knowing what you are about.

You may begin with an observant hand-shaking. The hand of a drinker is often, *sui generis*, large, fat, pulpy, with little or no grip, and, in distinction from a dropsical hand, often hot; differing also from ordinary oedema in that the swelling is on the palmar rather than on the dorsal aspect. The appearance of the hand is also peculiar. The fingers are thickened throughout, without the depressions below the phalan-

geal articulations, and if a ring is worn, it tightly constricts the finger. Even in those drinkers who are emaciated by alcohol, the hand, though thin also, is yet characteristically flabby and weak.

The movements of the voluntary muscles in general present likewise characteristic features. One of the first and ever afterwards constant effects of the habitual use of alcohol is the development of slowness in muscular action. It requires a considerable exertion of the will to cause muscles, long alcoholized, to resemble their former selves. They act not so much like tired or wearied muscles, but like lazy ones, the indications being not that they are specially weakened or paralyzed, but rather that some great inertia has to be overcome; so that, for instance, a man takes double the time that he ought to rise from his chair. Real activity of any kind is incompatible with chronic drinking, and hence such persons are notoriously procrastinating and unreliable. But, as the case progresses, true weakening develops, changing the symptoms from those of mere sluggishness into the general debility characteristic, not of any definite nervous disorder, but rather of old age. We might indeed correctly say that alcohol can induce old age as a disease, for in more than one case natural changes become diseases simply by occurring too soon. You have excellent illustrations of this fact if you note the gait of these middle-aged patients before you. Their walk is neither ataxic nor paraplegic. A true paraplegic gait is shuffling, while the ataxic patient brings his heels down first and forcibly on the floor. But these men, who are none of them, I suppose, much beyond what is termed the prime of life, yet walk with an instinctive watch against stumbling, showing that carefulness in progression which belongs naturally to advanced age alone. But the reason is, that these patients are positively afraid of falling, not because they are under the present influence of liquor (for that idea reflects too seriously on this institution), but because, with most cases of advanced chronic alcoholism, a sudden sensation of imminent danger of falling is a very frequent occurrence. This feeling is so peculiar, and at the same time its subjects are so unacquainted with its origin, that you can often detect the secret drinker by asking him if he is troubled with this particular symptom, which differs from true vertigo in being usually described as not accompanied by swimming or reeling, but rather as a sudden, startling fear of dropping to the ground.

To complete the external signs, whose significance you should take account of, whatever the patient may say, you will note a relaxed, congested nula accompanying a chronic pharyngeal catarrh, ascribed by the patient very commonly to some "dropping down from the head" into the throat. In many cases this state of the fauces involves the laryngeal structures enough to produce a frequent husky cough without any but slight viscid expectoration. The conjunctivæ, if not congested, yet often have small beads of fat near the inner angle of the eye. The skin is soft and flabby, and on the abdomen of preternatural whiteness, where it can be easily pinched up into folds, which are restored but slowly, owing to loss of normal elasticity. In the majority of instances, owing to gastric catarrh, the epigastrium is puffed out, and very often tender on pressure. But the most noteworthy change apparent on inspection is the increase of the curve of the abdomen below the umbilicus, best distinguished in thin persons, and due to a tendency in the intestines to sink down into the pelvis. This is one of the earliest symptoms of failing vitality, whether from age or otherwise, and is specially frequent in chronic drink-

ers. Sir James Paget speaks of these appearances of the skin and of the shape of the abdomen as rendering the prognosis unfavorable for surgical operations, owing to the liability of such persons to succumb quickly to shock.

You may now lead your patient to think that you know his disease very well by suggesting that he is a bad sleeper; that going to sleep easily he is awakened too soon by disagreeable dreams, and then finds it difficult to sleep again. Disturbed slumber and an invariably unpleasant kind of dreaming is so common among these patients, that it is frequently their reason for first consulting you. In quite chronic cases you may also suggest that, on dropping asleep, they are prone to startings of the limbs, for in many instances this is so constant as to be very annoying, and like the analogous startings of epileptics, whose disease has followed blows on, or injuries to the skull, may be quite indicative of cerebro-meningeal irritation, though it may also occur in cases of simple weakness of the spinal centres.

Chronic drinkers never have good appetites. The most certain of all antidotes, or rather I should say the true opposite to alcohol, is food. In acute alcoholism there is no remedy which will compare in the treatment of delirium tremens with constant regulated doses of milk and lime-water. Nearly all cases of this affection are preceded by a total abstinence from food, sometimes for days together. On the other hand, they suffer the least, among those who habitually use stimulants, who take them only with their meals, because alcohol and its antidote are then taken together. I doubt if any one is likely to become a drunkard if he never drinks except at meals, for generally the craving for drink may itself be stopped for some hours by taking food alone. As alcohol is indulged in, however, between meal hours, the sense of hunger grows weaker and weaker, and soon it is found that what seemed a fair appetite at the beginning of a meal does not last long enough to finish it, especially in the case of hearty animal food. The breakfasts are particularly troublesome to dispose of, and hence the popularity of morning bitters to stimulate the appetite; but generally these, after a while, lead to positive morning nausea and vomiting. The small amount of food which many votaries of Bacchus get along with is often as surprising as the starvation diet of some cases of hysteria. You may finally tell your patient that you suppose his bowel passages are generally scanty, whether they be loose or constipated.

It would be wholly impracticable for us in the limits of this lecture to dwell in detail upon the varied nervous disorders which accompany the degenerative changes in nerves and nerve-centres caused by alcoholism. Symptoms resembling chronic myelitis or chronic spinal meningitis you will have repeatedly. I think that thirty per cent. of the cases of paraplegia in adults, when not syphilitic, is due to chronic alcoholism. Epilepsy is very common, and alcoholic insanity leads the list of mental disorders in this country in the frequency of its occurrence and in the variety of its forms. Weakness of sight, and less often of hearing, but in either case exactly resembling failure from age, are likewise common. Muscular tremors resembling paralysis agitans are familiar to you all, and occasionally true ataxic symptoms are also present; but the alcoholic varieties of both of these diseases are chiefly distinguished by their affecting both sides of the body equally from the first. Why you should meet with such an array of nervous disorders, as well as many obscure and anomalous cases which you cannot refer to any particular class, is readily explained

by the anatomical changes that are often found in the nerve-structures of the victims of alcohol. Instead of softening of the brain (which much talked-of disease almost never occurs except in very limited areas), you find extensive destruction of nerve-cells and fibres by the encroachment of connective tissue, producing such an atrophic hardening that Van der Kolk claimed he could tell, when blindfolded, the brain of a drunkard by the sense of touch alone.

But, as I remarked before, I have seen apparently the gravest symptoms of nervous disease gradually improve; and recovery, in great measure at least, take place, though sometimes not for many months, in the persons of old drinkers who had abandoned alcohol, when if their symptoms had been due to other morbid processes, such improvement would have been scarcely possible. It is true that we can never tell ante-mortem to what extent the nervous tissues have been damaged by this poison, and of course I do not mean to intimate that portions of nervous tissue may not be often as irretrievably cirrhosed by alcohol as liver or kidney tissues so frequently are. But, nevertheless, whether owing to a greater degree of reparative power on the part of nervous tissue, or to a less amount of direct irritation by alcohol than occurs in the case of the liver or kidney, I feel assured that lost nerve-function can be oftener restored in these patients than would seem probable, when we consider the organic changes which may be present. The first requisite for this happy result of course is, to take no more alcohol. There is no use talking any further on this point. If the patient will not stop that, then let him go on to universal sclerosis. But we may materially aid the restoration, especially when mental as well as spinal functions are affected, by the persevering use of small doses of corrosive sublimate, in conjunction with the nerve restoratives, cod-liver oil and phosphorus; for I have no question whatever that mercury exerts a positive remedial effect upon sclerotic forms of degeneration. Nitrate of silver in one-quarter grain doses, with the same of extract belladonna, should be used as long as prudent, and then the oxide of zinc may be substituted for the silver, in three grain doses *t. i. d.*, with better success than zinc shows in the treatment of any other nervous disease, its benefit in alcoholic muscular tremors being quite unmistakable.

In conclusion, we may remark that there is one practical point to note as respects the great wasting of the voluntary muscles in chronic alcoholism. You can readily see that in every one of the patients before you the muscles of the arms scarcely rise in their beds with the most forcible contraction. Part of this atrophy may be simply an expression of the starvation of all the tissues from lack of food, which, as we have remarked, such patients have little relish for, partly also to their damaged stomachs and livers, and partly also to chronic self-poisoning from damaged excreting glands. But still, the general characters of the wasting so closely resemble the atrophy of muscles which occurs in certain nervous diseases, that the affection must, I think, be regarded as mainly secondary to the changes in the nervous system. You find in them an analogous condition to the disease called progressive muscular atrophy, where perfectly healthy bundles of muscular fibres run side by side with others in all stages of degeneration. Hence the restoration of muscles from alcoholic degeneration is very slow, and does not begin until some time after the disappearance of the nervous symptoms. This you should explain to your patients in order to prevent them from having resort to gymnastic exercises, rowing, and



other forms of active muscular exertion commonly recommended for improving muscular power. You might as well recommend aged people to bring back the strong arm of youth by Indian clubs. The alcoholic tremor is greatly aggravated by the slightest over-taxation of the weakened muscles, and hence it is not safe to allow of any severe exertion until after the symptoms of nervous disorder have quite disappeared.

## CLASS-ROOM LESSONS ON SYPHILIS, GIVEN AT THE COLLEGE OF PHYSICIANS AND SUR- GEONS IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

(For The Medical Record.)

### LESSON V.

TREATMENT OF CHANCER, THE INITIAL LESION OF SYPHILIS—THE MUCOID FORM—THE INFLAMED INITIAL LESION—THE GANGRENOUS FORM—HISTORY OF A CASE.

GENTLEMEN:—I will next direct your attention to the treatment of *chancre*, the initial lesion of syphilis. I will first speak of treatment by excision.

Whenever a well-determined initial lesion is situated in loose tissue (integument or folds of prepuce in males, or of the vulva in females), the earlier removal, by excision, is accomplished the better. Not with the expectation of preventing constitutional infection (which, as a rule, is inevitable before the local lesion is discovered), but, as far as possible, to remove a focus of dissemination for diseased elements, and to diminish the danger of conveying disease to others.

The infective neoplasm, whether under sound skin or appearing in any one of the forms or modifications previously described (except the inflamed or suppurating), should be removed *entire*. The resulting wound heals, as a rule, by first intention. Even when the induration is large, little, if any, deformity remains after cicatrization. Practically the indurated tissue is a foreign body, and its thorough removal requires the sacrifice of but little of the surrounding healthy structure. Favorably situated open initial lesions of long standing may be promptly cured in this way.

For the performance of this operation, first cleanse the parts thoroughly by gentle bathing in warm water; in all open lesions apply a solution of carbolic acid of a strength of one part of the acid to forty parts of water, after which raise the mass of induration between the forefinger and thumb, and encircle it firmly at the base with a bit of fine silver or malleable iron wire. The indurated part may be separated from the normal tissue in the same way by compression between the arms of a bent probe, being careful to include the entire induration.

Now, with a narrow, sharp-pointed bistoury, pierce the tissues at the centre, beneath the compressing wire or probe, and cut well under and out, including all the indurated and a little of the sound tissue of that side. This effected from the place of beginning, cut out in the same way on the opposite side. Be assured by careful examination that every portion of the neoplasm is removed, then introduce interrupted sutures of silk or silver wire at intervals of one-fourth of an inch. The patient should be kept in the recumbent position, the parts constantly wet with carbolated water until the third day, when, on removal of the sutures, union by first intention will, as a rule, be

found to have taken place. The resulting cicatrix may indurate, to a greater or less degree, but rarely, if ever, to the extent of inducing a solution of continuity.

In no case does this procedure lessen the necessity for constitutional treatment. The indurated papule, when so located that excision is unadvisable (as on the *glans penis*, or involving the tissues of the *con porta*), may be subjected to applications of the oleate of mercury (six per cent solution) or any correspondingly mild mercurial ointment. When the mucous membrane or cuticle covering the induration is abraded, or at any stage of simple *necrobiosis*, dusting the surface with dry calomel, and protecting it with a thin layer of dry lint, are often serviceable. Calomel in combination with lime-water, in the proportion of a drachm to a pint (*lotio nigra*), or bichloride of mercury, half a drachm to the pint of lime-water (*lotio flava*), are also much esteemed as applications to the open initial lesion. The tissue metamorphosis and absorption, which are requisite for the removal of the syphilitic neoplasm, are most readily induced by the internal administration of some one of the various mercurial preparations. In all forms of the initial lesion, the chief obstacle to resolution or healing is the *mechanical* interference to nutrition, occasioned by accumulated cell growth. Its removal must occur through the process known as *fatty degeneration*. The most active and reliable agent in effecting this, and in promoting the necessary subsequent absorption and elimination, is mercury; hence the internal administration of some mercurial preparation is *essential* in all well-determined initial lesions. The protoiodide of mercury, in pill one-half grain to one grain, three times a day. The biniodide in one-twentieth to one-twelfth. The bichloride in doses of from one-twentieth to one-twelfth grains. The mass. hydrargyrum, from two to four grains, three times a day, until the constitutional influence of the drug is manifested by a spongy and sensitive condition of the gums, or a slight mercurial odor in the breath. The mercurial impression should be maintained as nearly as possible at this point until complete absorption of the local neoplasm has been effected. Its further employment will be considered in the lessons on treatment of general or constitutional syphilis.

Cleanliness, freedom from friction, and irritation from all other causes, simple diet and abstinence from alcoholic stimuli are necessary to the most favorable results in treatment of the INITIAL LESION, as well as all other forms of syphilis.

In regard to the modifications of the initial lesion of syphilis,

#### THE MUCOID FORM

requires, in addition to the constitutional treatment previously described, the application of the solid *argentum nitratiss* (or some other caustic), sufficient *only* to destroy and subsequently to repress the exuberant granulations.

#### THE INFLAMED OR SUPPURATING INITIAL LESION

requires rest and opiate or sedative dressing, as the *lotio plumbi et opii*, in the proportion of grs. v. each to the ounce of water; or the powdered *iodoform*, simple, or with an equal part of *tannic acid*, which seems to deodorize, and, possibly, increases the efficiency of the *iodoform*.

#### IN THE GANGRENOUS FORM.

the powdered *iodoform* is efficient as an antiseptic. Poultices of powdered charcoal are also of value

but the internal administration of mercury must not be neglected while the gangrenous action is limited to the induration. Occurring in debilitated or highly scrofulous subjects, as is usually the case, attention should be given to general support, by generous diet, quinine, and iron. The *potassium-tartrate of iron* in 15 to 20 grain doses (as recommended by Ricord) seems to exert a specific influence over gangrenous conditions. It must not be forgotten that healing and apparent cure of the initial lesion does not mean cure of *syphilis*. After disappearance more or less complete, the induration may return. Not unfrequently, it may be observed to increase or diminish, in apparent sympathy with the progress or abatement of the constitutional disease. From this fact the local induration has come to be considered by some as a reliable barometer, by which the effect of general treatment may be appreciated. The duration of the initial lesion varies greatly in different cases, sometimes disappearing within a few weeks, and with it every trace of induration; at others, it continues as an induration, more or less distinctly marked, throughout the active stage of the constitutional infection. Enlargement and induration of the lymphatic glands nearest in connection with the initial lesion constitute the first positive evidence of the progress of constitutional infection.

Concealed initial lesions (as within the meatus urinarius or the anus) may be treated with bougies, or suppositories, medicated with opium, salicylic acid, or iodoform.

#### SYPHILIS—TREATMENT FOR ONE YEAR—OUGHT TREATMENT TO BE CONTINUED?

CASE.—This case, gentlemen, contains some points of interest, and gives us the following history: About one year ago the patient came to us with the characteristic roseola of syphilis. The antecedent history was quite uncertain, and we were obliged to wait before we were thoroughly satisfied regarding the nature of his trouble, until some of the later symptoms of syphilis supervened. He has been under treatment one year. He had no papular eruption, but had well-marked mucous patches in the mouth, and a persistent induration and ulceration at the seat of the original lesion. The persistence of these latter symptoms was so great that we were at times uncertain whether there might not be some other element than the syphilitic in active operation. But this induration has finally passed away, and he has come to us to-day to know whether treatment should be continued longer; to learn what the prospect is with reference to recovery from syphilis. He is now apparently free from the disease, but we are expected to give an opinion with reference to the future, and to determine whether there is any necessity for further medication.

In the absence of all general evidence we wish to look particularly at the condition of the glandular system. If we find no open lesions, no positive glandular enlargement after the lapse of this period of time, we are warranted in suspending treatment with the hope that no further manifestations of the disease will be made. As long as there remains secondary glandular enlargements at a distance from the seat of the initial lesion, we must believe that syphilitic trouble is present, and continue the treatment. In the earlier part of this case there was positive glandular enlargement in the cervical region and in the arms. There is no evidence whatever of the persistence of glandular enlargement in these regions, except in the cervical, where there is a slight increase in the size of the glands, but it is quite different from the charac-

teristic enlargement present some time since. In the groin no enlargement of glands can be found upon the right side; there is slight increase in the size of the glands upon the left side, but it is not at all characteristic. The case, therefore, must be regarded as one in which very satisfactory results have been obtained after treatment prolonged for only one year. One year is an exceptionally short time to obtain so satisfactory results in as well-marked a case as this.

There is, therefore, in this case, nothing left except slight glandular enlargements, which are not characteristic, but at the same time are sufficient to warrant an effort at farther reduction by continued treatment. This man, probably, will have no farther trouble connected with the active stage of the disease. It is advisable, however, that he should continue the treatment which he has been under, and take two grains of blue-mass two or three times a day, and continue its use for two or three months, when another examination should be made with reference to the condition of the glandular system. He wishes to pass from under our observation for three months (as he is to leave the city), and I should not hesitate to direct him to pursue this course of treatment during that time, for there is a security obtained which is worth all the damage done by the mercurial.

I question whether such an amount of mercury will do him the least harm, even if there was no necessity for its use; but in his case there is a manifest propriety in its continued administration. I well recollect a case in which the bichloride of mercury, in one-twenty-fourth grain doses, was used for some time, and then it was advised to discontinue its use. Through some misunderstanding, however, the mercurial was continued, and continued for eighteen months before it was accidentally discovered that the patient had been taking it regularly all the time, and had not been conscious of any unpleasant effects arising from its use.

## Original Communications.

### OSTEOTOMY FOR THE CORRECTION OF RACHITIC DEFORMITIES OF THE LEGS.

By CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

THE surgical treatment of rachitic deformities of the lower extremities naturally divides itself into two methods; namely, the mechanical and the operative. When the bones are soft and yielding, and before ossification has advanced too far, splints and braces are indicated; after the bones have acquired stiffness and have become sclerosed, mechanical support is useless and only a source of discomfort to the unfortunate wearer. It is a common impression among the laity, and, to some extent, among physicians, that children will often outgrow these deformities, and rather advise against any mechanical treatment. I am satisfied that this impression is erroneous. Young children showing a tendency to the deformities we are considering, should be provided with proper support as early as possible. After the bones have become hard and sclerosed, operative interference offers the only means of relief.

Within the last few years osteotomy for rachitic deformities has been frequently done, both on the Con-



tinient and in England, and is now recognized as a good and safe operation.

Within the past few months I have performed osteotomy on three patients (six operations), and the following communication is based on the experience gained in the management of these cases.

In order to avoid useless repetition I will first describe the instruments and then the operation:

1. In regard to the instruments, section may be made either with a chisel or saw (Adams's is generally used in England). My own preference is for the use of the chisel; as, in my experience, the section is made easier, more rapidly, and with less disturbance of the soft parts with the latter instrument. I have two chisels, one three-eighths, the other half an inch wide, made wedged-shaped and very gradually tapering down to a sharp edge. There must be no sudden swell in the chisel, as one finds in a cold chisel, but, from just below the handle the line must be straight to the edge.\* Those generally sold in the city for this purpose are useless; they are too thick just above the cutting edge, and too wide. In operating on the cadaver with one of these chisels, I found that the bone was invariably splintered longitudinally; sometimes for an inch or more above, or below the point of desired section, it acted like a wedge. They should have a temper between that of a cold chisel and a cutting edged-tool, and should be very sharp. If a saw is used I think that the one known as Adams's is uselessly wide, and separates the tissues over the bone too much. I have also found that a mallet, heavier than those commonly used in necrosis operations, is an advantage.

2. Operation: A longitudinal incision three-quarters of an inch long is made over the crest of the tibia down to the bone at the point of greatest curvature. If a saw is to be used a subcutaneous cut is made through this incision, and at right angles to it, over the inner surface of the tibia dividing the periosteum, and a narrow saw is passed down upon the knife as a guide, and the bone partially divided, and then fractured. When the chisel is used it is applied across the long axis of the bone and driven directly in until fracture takes place. Care should be taken not to allow the edge of the chisel to extend over the outer edge of the bone, for fear of wounding the anterior tibial artery, which is much nearer to the tibia than in the normal condition; by neglecting this precaution, I wounded that vessel in my first operation.

The fibula should be cut down upon and divided. I have fractured it in two operations by force, and in two it was only bent. It will be evident that after the leg is brought into a straight position there will be a V-shaped gap between the ends of the fractured tibia, the apex of which is directed outwards. I think it an advantage to make a counter opening at a point corresponding to the posterior and inner position of this V-shaped gap, and to pass carbolyzed horse-hair from the incision over the crest of the tibia through this counter opening, in order to drain away the blood that fills the gap, otherwise it will infiltrate the surrounding tissues. The horse-hair should be removed at the time of the first dressing. All the operations were done, and the wounds dressed antiseptically.

The limbs were put upon a posterior zinc splint placed over the dressings. The splint is provided with a foot-piece so as to keep the foot at right angles to the long axis of the limb.

As soon as the wounds are closed the limb was put up in plaster-of-Paris.

\* Shepard & Dudley, 150 William St., have made some of these chisels after a pattern I gave them.

CASE I.—Jennie M., aged 13, was admitted into St. Mary's Free Hospital for Children, April 2, 1878, with marked curvature of both tibiae. The deformity is mainly confined to the lower third of the leg, where the bone takes a sudden bend inwards and is slightly twisted on itself, so that the feet are directed inwards. There is a slight degree of talipes valgum, the tarsal arch being flattened. There is also some bending outwards of the whole bone. There is enlargement of the epiphyses at the wrists and ankles and other marks of rickets. She walks with a rolling gait, and is not as tall as a girl of her age, having a dwarfish look. Her general condition is good.

April 20, 1878.—Patient was etherized (present, Drs. Geo. A. Peters, McBurney, Mason, Tucker, and Cheesman), and osteotomy done with a chisel, the bone being divided in sections. After the chisel had penetrated some distance there seemed to be a considerable portion of the bone on the fibula side of the crest undivided, and which was thought to prevent the fracture of the bone; the chisel was therefore applied on the outer side of the crest in a direction backwards and inwards, the sheath of tibialis anticus being crowded downwards and outwards by the lateral surface of the chisel. After dividing the bone in this direction for some depth, the cut was gradually deepened throughout its whole extent until fracture took place. During the cutting, at one time there was considerable hemorrhage, but it lasted only a moment, and nothing further was thought of it. After the tibia had been divided, an incision was made over and down upon the fibula, and that bone divided with a chisel, the fibula in the meantime being bent outwards at the point of section. Immediately on division there was a free hemorrhage of arterial character from over and between the divided bone, evidently from an artery of considerable size. The fibula wound was enlarged, so as to afford easy access to the space between that bone and the tibia. After considerable search the anterior tibial artery was found to have been partially divided in two places about one-fourth of an inch apart; the vessel was secured with two carbolyzed catgut ligatures. Carbolyzed horse-hair was passed from the tibial wound through that over the fibula, and the incisions were partially closed with catgut ligatures. The operation was done under thymol spray, and the limb enveloped in thymolyzed gauze. The limb was placed in a posterior splint, no attempt being made to correct the position. Sol. sulph. morph., Mag. Mv.

April 21st.—Patient comfortable, temp. 104.5°, pulse 110. Dressings removed; they are soaked with a serous, bloody discharge. New gauze applied under spray. Wounds look well; no swelling. Temp. P.M., 104.5°, pulse 120.

April 22d.—Complains of some pain in the leg. Temp. A.M., 101°, pulse 110; P.M., 102°, pulse 110.

April 23d.—Dressings removed on account of the appearance of some discharge. The wound over the tibia looks well, that over the fibula looks sloughy. There is some swelling and discoloration over the tibialis anticus, and by pressure considerable sanious discharge is forced out. Temp. A.M., 101°, pulse 110; P.M., temp. 100½°, pulse 100.

April 24th.—More swelling over tibialis anticus; patient complains of considerable pain on pressure over the swelling. There is quite a slough over the fibula, involving the whole wound. Compress applied over abscess and dressings reapplied. Temperature A.M., 100.5°, pulse 100; P.M., 98.7°, pulse 80°.

April 26th.—Discharge from abscess diminishing. Wound over the fibula looking healthy. Limb placed in a straight position. Temperature and pulse normal.

May 2d.—Limb put up in plaster-of-Paris bandage. Wounds dressed with bals. Peru.

May 22.—Doing well; there is some exposed bone felt through tibial wound. Discharge slight. There is some union.

May 30th.—Some small pieces of bone removed to-day.

June 1st.—Osteotomy done to-day on the right leg; (present, Drs. Peters, Shradly, Reynolds, and Humphrys.) Attempt was made to make the section with a saw, but it was soon laid aside and a chisel used. The fibula was cut down upon and divided, and a counter-opening made on inner aspect of the leg, and carbolized horse-hair passed through. The operation was done under carbolic spray, and carbolized gauze used. Limb put up on posterior splint in a straight position.

June 2d.—Patient did not have any pain, nor has there been any elevation of temperature. Dressings removed and reapplied. Horse-hair taken out.

June 4th.—Some pieces of bone removed from left leg, being a portion of the upper cut surface of the tibia.

June 6th.—Wounds in right leg closed; limb put up in plaster-of-Paris.

June 17th.—Plaster-of-Paris removed from left leg; union firm.

July 6th.—Plaster-of-Paris removed from right leg; union firm.

August 1st.—Union firm; patient going about the hospital, rapidly regaining the use of her limbs.

CASE II.—Solomon N., aged six years, was admitted into St. Mary's Hospital May 9, 1878, with marked deformity of both legs, the tibiae being bowed inwards, the curvature being confined to the lower third of the limbs. There is also some twisting of the bone inwards. Patient has enlarged epiphyses at the ankle and wrist, and other symptoms of rickets. He is a healthy-looking child. Fig. 1 represents the limbs at date of admission.

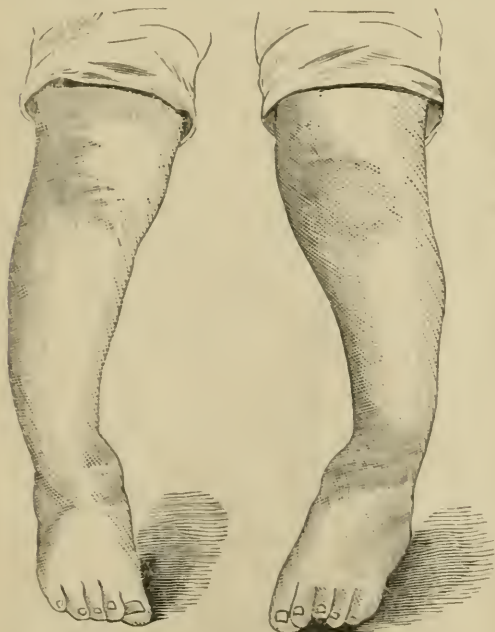


FIG. 1.

May 18, 1878.—Osteotomy was done on the left limb; the bone was partially divided with a small saw, and section completed with a chisel. The fibula was fractured by bending. Counter-opening made,

and carbolized horse-hair passed. The operation was done under thymol spray, and the limb enveloped in thymolized gauze; the limb put in a posterior splint in a partially corrected position. Sol. sulph. morph. Mag.  $\mathbb{M}$ v.

May 19th.—Passed a comfortable night. No swelling or redness about wounds. Horse-hair removed. Dressings reapplied. Temperature and pulse normal.

May 22d.—Limb put in a straight position.

May 27th.—Wounds closed; limb put in plaster-of-Paris splint. No discharge.

June 6th.—Osteotomy done on right limb. (Present, Drs. Shradly and Hackley.) Section made with a chisel driven directly into the bone. Thymol spray and dressings. Counter-opening made, and horse-hair passed through. Fibula fractured by bending. Limb put up in posterior splint in a straight position.

June 7th.—Patient, half an hour after being put to bed, was playing with his toys; took no morphine, and rested well last night. Temperature and pulse normal.

June 10th.—Right leg put up in plaster-of-Paris. Wounds closed.

June 19th.—Splints removed from both limbs. The left seems firmly united. Right limb some union. Splint reapplied.

July 5th.—Plaster-of-Paris removed from right limb; union firm. Fig. 2 represents patient at time of discharge.

Aug. 1st.—Patient is running about, and will soon be discharged. He is only kept in order to watch the amount of improvement in walking.



FIG. 2.

CASE III.—John A., aged four years, was admitted into St. Mary's Hospital May 13, 1878, with both tibiae curved outwards, and other symptoms of rickets. He is a pale, flabby-looking child, and although he is fat, has not a healthy appearance. The curvature involves the whole limb, having its greatest convexity at about its middle.

May 20th.—Osteotomy done on the left leg. The



tibia was divided just below its middle. A saw was first used, but it was laid aside, and the section completed with a chisel. The fibula was bent. No counter-opening made. Operation done under thymol spray, and wounds dressed with thymolized gauze. Limb put on a posterior splint. Sol. sulph. Mag. hypodermically,  $\mathfrak{v}$  v.

May 21st.—Patient complains of no pain. Rested well last night. No swelling of limb. Dressings re-applied. Temperature A.M.,  $102^{\circ}$ ; pulse, 150; P.M., temperature  $100\frac{1}{2}^{\circ}$ ; pulse, 140.

May 24th.—Dressing removed. There is found to be a bloody purulent discharge from the wound, which comes up from the V-shape gap left by straightening the tibia. Compress applied, and dressing readjusted. Temperature A.M.,  $99^{\circ}$ ; pulse, 130; P.M., temperature  $98.5^{\circ}$ ; pulse, 120.

May 27th.—Wound almost closed. Discharge slight.

June 2d.—Appetite poor. Has some bronchitis.

June 7th.—Wound closed. Limb put up in plaster-of-Paris.

June 25th.—Plaster-of-Paris removed from left limb; union strong; limb perfectly straight.

June 20th.—Osteotomy of right tibia. No counter-opening made. Fibula fractured, and the limb put on a posterior splint, with a firm flannel compress on the outer aspect of the limb, with a straight splint outside. Operation done under thymol spray, and dressed antiseptically. No morphine.

June 21st.—Rested well last night. Complained of no pain. On removing the dressings to-day, it was found that the skin under the compress was red, and looked badly. Compress changed, and the straight splint placed on the inner aspect of the limb, with a thick flannel compress over the inner head of the tibia, and one over the lower portion of the tibia and on the inner side of the foot. Temperature A.M.,  $100^{\circ}$ ; pulse, 120; P.M., temperature  $98\frac{1}{2}^{\circ}$ ; pulse 130.

June 28th.—Limb swollen on its outer aspect, where compress had been placed. Fluctuation marked. Abscess opened, and about 5 ij. of pus evacuated. There is no connection between the point of fracture and the abscess. Temperature A.M.,  $102^{\circ}$ ; pulse, 140. Temperature P.M.,  $103^{\circ}$ ; pulse, 140.

June 29th.—Dressings removed. Limb put up in plaster-of-Paris, with large fenestra over abscess. Wounds dressed with bals. Peru, and covered with borated lint.

July 5th.—There has been a slough of the subcutaneous cellular and some muscular tissue over a space corresponding to the outer pad, and a slight one over the inner head of the tibia.

July 19th.—Wound rapidly filling up. Appetite good. There is some exposed bone about the point of section.

Aug. 1st.—Wound caused by slough is almost filled up. Union in right leg firm. He will, however, remain in the hospital for some time, as I think it will take some weeks for him to regain his power to use his limb well.

*Remarks.*—The elevation of temperature in Case No. I., after the first operation, was marked,  $104.5^{\circ}$ ; also in Case No. III., after both operations.

It is said that you are liable to have an elevated temperature after the use of thymol, but in Case No. II. the temperature was normal after both operations. I am inclined to attribute the great elevation of temperature in Case No. I. to the imperfect manner in which the operation was done, as well as to the dissection rendered necessary by the wounding of the anterior tibial artery, although the use of thymol may have been an element in causing it.

In regard to Case No. III., I think that the condition of the patient was unfavorable for any operation. The extensive slough after osteotomy on the right limb indicated the unhealthy condition of the patient, for in a healthy child the amount of pressure for so short a time should not have been followed by so extensive a slough. I am at a loss to account for the slough over the left fibula in Case No. I., unless it was that my sutures were too tight. There was no shock following any of the operations, notwithstanding the elevation of temperature.

The amount of hemorrhage, except in Case No. I., first operation, did not exceed half an ounce. The first dressings were always well filled with blood, but after there was only a slight serous oozing.

In regard to the wounding of the anterior tibial artery in my first operation, I do not think it was done at the time of the section of the fibula, but earlier, when I applied the chisel on the outer side of the tibia.

I think that the exfoliation of bone, in Case No. I., left leg, was due to some extent to the use of an improper chisel.

Fracture of bones in children is a trivial affair, and from my experience I think that the operation of osteotomy is followed by but little pain, and firm union is obtained in uncomplicated cases in about five weeks. The age at which osteotomy should be done depends upon the age at which children become rickety, and the amount of consolidation that has taken place in the bone. I have seen children at two years of age, where the bones had become so firmly consolidated that little or no hope could be held out that any straightening could be effected by mechanical means. In older children we often find a relaxation of the ligaments about the knee-joint, due to the deformity of the legs. An early correction of the bend in the tibia might prevent this. In Case No. I. this is marked, and is an unfortunate complication.

The results in my own cases have been good, although I think that in Case No. I. I did not correct enough. The bend in the tibia above the lower third may account for the imperfect result. There is a slight curvature in Case No. II., while in Case No. III. the legs are as perfectly straight as in a healthy child.

In another case I should make both sections on the same day.

I think that it would have been better to have divided the fibula *first*, in a direction from below upward and from within outwards, as the amount of manipulation necessary to either bend, break, or divide that bone, *after* section of the tibia, disturbs the tissues about the latter bone, and uselessly adds to the amount of repair required. It also increases the rent in the periosteum. It may be urged that it is not necessary to divide the fibula in all cases with an instrument, and that it makes one more wound; but the requisite incision to make the section is small, and is of no consequence when done antiseptically.

**HYDROPHOBIA IN ENGLAND.**—The number of deaths from hydrophobia in England and Wales, not including Scotland and Ireland, amounted to 47 in 1875, and 53 in 1876. The total number of deaths from hydrophobia during the eleven years from 1866 to 1876 inclusive was 387, an average of 35 per annum. Of this number 118 occurred in the County of Lancaster, 72 in West Riding, 41 in London, and 26 in the County of Durham. In the east and south-west of England, and in Wales, hydrophobia seems to be almost unknown.

## THE USE OF COMMON WARTS OF THE HAND IN SKIN-GRAFTING.

By CHARLES A. LEALE, M.D.,

NEW YORK.

As common warts of the skin are collections of vascular papillae, admitting of easy separation without injury to their excessively thick layer of well-nourished epidermis, the idea was conceived that, by their use for the purpose of skin-grafting, better and more rapid results would be obtained than when the ordinary skin of less vitality is used. As proof of the theory the following case is cited, where there had been complete destruction of all the skin on the dorsum of the foot, involving to a great extent the deep cellular tissue, and where for several weeks no healing advanced until grafts of freshly removed warts from the patient's hand immediately started little islands of new tissue, which rapidly increased until they coalesced and met the margins of the border skin, thereby completely covering the foot by firm, protecting integument.

Samuel Root, aged 20 years, by occupation an iron moulder, while at work had a stream of melted iron run over his foot and through an opening in the front of his boot—a portion being moulded between a thick sock, which was burned to a black powder, and the remains of his boot. In about a minute his foot was placed in a pail of cold water, and as the boot and sock were hastily removed a large mass of the adherent skin was torn off from the crown of his foot. Extensive gangrene and sloughing of tissue followed, but treatment, in four weeks, left a healthy-looking granulating wound. Although strapping, hermetically sealing, removal of pressure, retention of foot while in bed in an elevated position, with applications of the usual healing balsams, and submersion in hot water were resorted to, yet, for the next five weeks, not the slightest advance towards healing occurred; the skin at the margin of the wound being exceedingly thin and shiny, while the wound itself was a mass of exuberant granulating tissue. For a number of days epithelial scrapings were dusted on the wound without any apparent effect. At the end of nine weeks I removed two large warts from his hand by transverse incisions through their proximal parts, carefully wiped off all blood, and tore each wart into quarters, in the direction of its papillae, and these eight portions of warts were planted about equal distances from each other through little cuts and left deposited about a line beneath the surface, all being completely covered at the end of the operation by the overlapping granulating tissue. The entire wound was now hermetically sealed by a covering of mild balsam of Peru ointment spread on soft lint, retained in position by adhesive straps, which were not at any time permitted to come in direct contact with the sore. At the end of forty-eight hours he walked on crutches over half a mile to my office. The dressings, in consequence of the purulent secretions, were easily removed. Each of the little grafts had received nourishment and all were alive; nor did any of them slough, as we nearly always see before the white zone shows itself in the ordinary skin grafting, but without any degeneration continued to grow, forming new skin, until they joined together, and at the end of three weeks from the time of grafting, and twelve weeks from the time of the original burn, the foot was entirely covered by skin and firm cicatricial tissue. The cicatrix then, on November 17, 1874, measured three by four and a half inches. Three years

afterward on examination it was nearly as large, but the cure remained complete.

Warts of the hand can be used with better results than small pieces of normal skin, in skin grafting, in consequence of being easily separated uninjured into numerous cylindrical rods of great vascularity and containing a large proportion of hypertrophied epithelium, which, when planted in healthy granulating tissue, readily adapt themselves to the new soil, receiving direct nourishment and quickly growing as starting-points for a new and smooth epithelial covering.

239 W. 52D STREET.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

##### SUBACUTE PLEURISY—LEFT PLEURAL CAVITY FILLED WITH FLUID—ABSENCE OF RATIONAL SYMPTOMS.

THE following case was interesting because of the negative symptoms with reference to disease of the heart and lungs. A male patient, æt. 40 years, stated that he had been sick for nearly one year, but that he had not made it the subject of any special complaint. During the past fifteen years he had been a hard drinker, especially so during the last seven years, taking from thirty to fifty drinks daily. In consequence of such excessive use of alcohol there had been loss of appetite considerable of the time. During the past year he had suffered more or less from pain "across the top of the hips and about the lower part of the back" when working hard; and in the morning he had seen spots before his eyes almost constantly, but more with the right than with the left eye. When sober the sparks or spots were not seen. He entered the hospital because of a suspicion that he had "Bright's disease of the kidney," and to get "cured of the pain across his back." His urine had always been abundant, but usually high-colored. He had had some œdema of the feet and ankles, but at the time it occurred he was working in the wet. The swelling was not attended by pain. He had *not* had any cough, nor shortness of breath, nor pain in the sides, or anywhere in his body except in the back, and it was for the cure of that pain that he entered the hospital. His urine had a specific gravity of 1020, and both chemical and microscopical examination gave negative results. Since his admission to the hospital *no febrile symptoms* had been present.

##### *Physical examination of the chest:*

On *inspection*, as the patient took a deep breath, it was noticed that respiration was almost entirely abdominal.

On *palpation* it was found that vocal fremitus was entirely absent upon the left side, and that the apex of the heart was beating about two inches to the *right* of the median line.

On *percussion* there was complete flatness over almost the entire left side of the chest.

On *auscultation* there was complete absence of respiratory and voice sounds over the left side of the chest.

There were then all the physical signs necessary to a diagnosis of pleurisy with extensive fluid effusion, and yet there was entire absence of all the clinical symptoms. There was nothing in the history of the



case that even directed attention to the thoracic cavity, nor was his general condition such as would lead to the suspicion that he was suffering from subacute pleurisy. His seemed to be one of those physical organizations which could bear a great deal without manifesting any symptoms. That was evident from his alcoholic history, and it was thought quite possible that his natural sensation had been to some extent perverted by such excessive use of alcohol, hence the less degree of suffering from such an extensive amount of disease. Over the right side of the chest there was exaggerated respiration. The area of hepatic dulness was nearly normal. His temperature was normal; his pulse eighty-four, regular and full. His stomach was in good condition, and his kidneys were operating freely. He was treated with repeated blisters, and the effusion diminished quite rapidly.

**PARALYSIS OF ONE FINGER FOLLOWED BY PARALYSIS OF THE ARM AND FACE, AND SUBSEQUENTLY BY HEMIPLEGIA—CASE FOR DIAGNOSIS.**

The following case was interesting because of the peculiar succession of symptoms:

A male patient, *æt.* 52 years, had a temporary loss of sensation and motion in the middle finger of the left hand, which lasted a few hours and then passed away without special treatment. The phenomena occurred and passed away three days in succession. Within two or three days after, and while sitting at the table, the patient noticed that he was unable to use his left hand and arm, and reaching his cup of tea to his mouth with his right hand, he discovered that he was unable to control the left corner of his mouth, and the tea ran out upon his beard. He then discovered that he could not move the left side of the face, and was unable to close his left eye as well as he could the right. There was some improvement in that condition when, about one week subsequently, he fell into an unconscious state, and remained in that condition about twelve hours. His friends told him that he had a convulsion, that he did not froth at the mouth; but he did not bite his tongue. On emerging from his state of unconsciousness he found that his entire left side was paralyzed.

For two or three weeks before the *first* appearance of paralysis of the face he suffered from quite severe pain in the head. He immediately began to recover from his hemiplegia, and within a period of *five* weeks recovery had become almost complete.

There had been a peculiar loss of sight, and limited to the eye upon the same side with the paralysis. The disorder of vision came on gradually, was never complete, and the patient had the power of restoring it temporarily by force of will; that is, when he made a strong effort to see he was able to do so distinctly.

There was no evidence of cardiac disease, nor was there any evidence of diseased arteries.

Twelve years ago he had what was supposed to be a hard chancre, and what was called *iritis*, affecting the right eye. He had not had any other manifestations of constitutional syphilis.

Explanation of the symptoms was reserved.

**ACUTE BRIGHT'S DISEASE FOLLOWING CONFINEMENT.**

The patient was admitted to the hospital on the 16th inst. Six weeks previous to the present attack she was confined with her third child. Her labor was normal, and her convalescence good. She nursed her baby, and felt perfectly well up to nearly three weeks ago, when she first noticed that she was unusually sleepy. She had no marked sickness at the stomach, but had slight vomiting. Within two or three days

swelling of the face appeared, then of the feet, then of the body; she "got quite dizzy in the head," and had headache, sometimes quite severe. So far as she knew, the symptoms came on without cause. There was no swelling of the face or feet before delivery, nor did she ever have any nervous twitchings. When admitted to the hospital, her urine was examined and found to coagulate entirely by the use of heat and nitric acid, and the microscope revealed the presence of blood-casts, blood-globules, and small hyaline casts. The specific gravity was 1010, and the quantity passed was about  $\frac{3}{4}$  iv. in twenty-four hours. On the day following her admission she had a slight convulsive movement. On the same day the quantity of urine began to increase, the quantity of albumen began to diminish, and on the 30th it had a specific gravity of 1015, contained about 25 per cent. of albumen, a few casts, some blood, and the quantity passed in twenty-four hours was  $\frac{3}{4}$  64.

The treatment had consisted of the use of jaborandi, dry cups to the back, hot-air baths, poultices of digitalis over the loins, and the administration of one grain of claterium. At one time she received about three quarts of milk daily. The jaborandi usually produced profuse perspiration within fifteen minutes after its administration. Squibb's *fld. ext.* was used. On one occasion 3 ss. was administered hypodermically, and 3 iss. by the mouth, and an hour elapsed before perspiration commenced.

On the 30th, her pulse was rather feeble; a distinct anemic murmur was present at the base of the heart; there was slight oedema about the eyes, but none about the ankles. Her temperature was 100° F. Iron was recommended.

**ACUTE LOBAR PNEUMONIA—TREATMENT BY MEANS OF SPONGE-BATHS AND LARGE DOSES OF QUININE.**

Attention was directed to the following case, as one which illustrated an interesting point with reference to treatment:

A male patient, *æt.* 41, a German, and by occupation a tailor, was admitted to the hospital May 1st. His previous history contained nothing of special importance. He was taken with sharp pain in the right side, which lasted for some time with marked severity. On admission to the hospital his temperature was 105° F., pulse 120, and respiration rapid. His skin was hot and dry. There was slight cough, attended by mucous expectoration. There was slight pain remaining in the right side. Urine about normal in appearance; contained urates, but no albumen. Heart and liver normal.

Crepitant râles over posterior and upper portion of right lung. Pleuritic friction sound confined to a small space at the bottom of the right side of the chest in the axillary line. Dulness upon percussion.

May 2d.—Morning temperature, 105° F.; pulse, 119, and respiration, 34. At 12 M. the temperature was 106° F., and a sponge-bath was given in the following manner: the clothing was entirely removed, and the surface of the body sponged with cold water, considerable time being consumed in its application, say fifteen or twenty minutes, so that free evaporation could take place.

The temperature fell one degree, and the patient felt considerably relieved. In the course of the afternoon two sponge-baths were given. At 4 P.M. the temperature was 104° F. At 7 P.M. the temperature had reached 105° F., and a sponge-bath was given. After the bath a slight chill occurred, but there was no noticeable change in the patient's general condition. The pleuritic friction sound was absent. Twenty

grains of the sulphate of cinchonia were administered. In the course of the evening two sponge-baths were given.

May 3d.—Morning temperature, 105° F. At noon the temperature was 105½ F., the pulse 128, and the respiration 48. A single rusty-colored sputum was noticed. Skin dry and pungent. Urine small in quantity. Sponge-bath was given. It gave some relief, but temperature arose again, and at 3 p.m. was 106° F. Sponge-bath, and at 3.30 p.m. temperature was 105° F. At this time grs. xx. of the sulphate of cinchonia were given. At 6 p.m. the temperature was 104°; at 6.30 p.m., 104½° F. Milk and eggs administered freely.

May 4th.—No material change in the general condition of the patient. No cerebral disturbance. Characteristic expectoration of pneumonia.

Morning pulse, 120; respiration, 38; temperature, 105° F. Evening pulse, 118; respiration, 38; temperature, 102° F. Twenty grains of the sulphate of cinchonia were administered. Sponge-baths.

May 5th.—Temperature, 101° and 102° F. A sudden decline in the fever, while the lung was in a state of solidification.

May 6th.—Râles redux.

May 10th.—No treatment except that which related to nutrition. Pulse, 60. A slow pulse is not unfrequently noticed in convalescence from pneumonia, remaining slow for two or three days, and then resuming its natural frequency.

The case was also interesting with reference to duration, having run its course in about nine days. The patient was only *five* days in the hospital when the fever subsided.

The bath, at each time it was administered, had a certain amount of effect, usually lowering the temperature one degree, and making the patient feel more comfortable. In this case the external use of cold water was not attended by any unpleasant effects.

#### EXOMPHALUS—CONTENTS OF THE SAC CONSISTING OF ASCITIC FLUID.

The patient was a female who had been tapped sixteen times for abdominal dropsy depending upon cirrhosis of the liver. There was present an umbilical hernia, the sac of which contained nothing except the fluid in common with that in the abdominal cavity. Paracentesis abdominis was performed, and as the fluid was removed, the tumor diminished in size, and a flaccid sac only remained when the abdominal cavity was emptied.

## Progress of Medical Science.

**TINNITUS AURIUM**—The *Students' Journal and Hospital Gazette* for March 30th and April 13th contains an article on the subject of tinnitus aurium, by Mr. W. Douglas Hemming, M.R.C.S., of London. At this time, when writers on otology are giving much attention to the pathology of "noises in the head," an article on this subject is of interest. Mr. Hemming's valuable paper contains a more complete review of the present literature of the subject than the author's remark, "that he does not intend to go exhaustively into the subject," would indicate. Mr. Hemming, after a careful examination of the various descriptions of "singing in the ears" given by others, reduces them to four or five classes: 1. Constant rushing noises; 2. Bubbling or gurgling noises; 3.

Tidal or "to-and-fro noises;" 4. Pulsating noises. Mr. Hemming gives in detail most of the conditions that favor the production of this disease. The most usual cause, however, he believes to be congestion of the labyrinthine circulation, either venous or arterial. If the former condition is the cause, the noise will be of a rushing character similar to sounds produced by taking large doses of quinine; if arterial congestion is the cause, the tinnitus will be of a pulsating or knocking character. The use of tobacco is regarded by the author as being frequently the cause of tinnitus. Among the numerous diseases attended by tinnitus are hysteria, hypochondriasis, gout, dyspepsia, and obstructed portal circulation. Dr. Theobald, of Maryland, is quoted as advancing a most plausible theory to account for the origin of tinnitus, it being attributed by him to the existence of vibrations excited in the walls of the blood-vessels of the labyrinth by the friction attending the circulation of blood; the terminal fibres of the auditory nerve being thus excited, giving rise to sensations of sound. In the treatment of this affection Mr. Hemming has found faradization a valuable agent, and he approves of the use of hydrobromic acid in fifteen-minim doses in some cases.

**TWO CASES OF OVARIOTOMY IN WHICH RECOVERY TOOK PLACE IN SPITE OF INJURY TO THE BLADDER AND DIVISION OF THE URETER.**—In the first of these cases the left ureter was divided in the course of the operation, and, as the lower portion of the tube could not be found, a small incision was made into the vertex of the bladder, to which the cut end of the upper portion of the ureter was attached by several sutures. On the sixth day after the operation urine began to escape through the abdominal incision. On the forty-fifth day the discharge of pus ceased, and efforts were then made to close the urinary fistula by the establishment of a direct connection between the lowest point of the abdominal urinary reservoir and the bladder, by the introduction of drainage tubes, etc. In the course of the treatment the fistula was closed by wire sutures, but four hours afterwards a diarrhoea set in, which persisted until the urine began to force its way through the sutures. On the same day an escape of gas through the fistula showed that a perforation of the intestine had taken place, and accounted for the diarrhoea. After this the fistula gradually became smaller, and on the eighty-first day after the ovariectomy the patient left the hospital almost cured. She subsequently recovered completely.

In the second case a profuse hemorrhage necessitated an accurate examination of the wound on the sixteenth day after the operation, and a long, narrow cavity was discovered extending downward into the pelvis. An opening was made into this through the vagina and a drainage tube introduced. On the twentieth day urine escaped through the abdominal opening, and more urine was passed per vaginam than per urethram. On the twenty-first day the drainage-tube was removed, and after that no more urine escaped through the vagina, and but little through the abdominal wound. On the twenty-fourth day this wound had closed, and on the twenty-fifth the patient was able to leave her bed, and was soon afterwards completely restored to health.—*Méd. Chir. Rundschau*, March, 1878.

**AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.**—The American Association for the Cure of Inebriates will hold its annual meeting at Boston, Mass., commencing Tuesday, Sept. 10, 1878, at 10 a.m., in Union Hall.



# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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### HOMŒOPATHY AND EXCLUSIVENESS.

THE communication in another column, in regard to the action of the County Society upon the question of exclusiveness in homœopathy, invites a word or two of comment. Our correspondent, although professing a catholic spirit, can hardly resist the temptation of ventilating his prejudices, even under the plea of a fair discussion of the general subject. He certainly strains a point by the consideration of side issues rather than the central question itself, which formed the basis of the editorial remarks to which he refers. The report of the Comitia Minora of the County Society was merely an answer to a query as to whether the recent action of the Homœopathic Society of the State of New York released its members from the ban of exclusiveness, regarding consultations, which had been placed upon them by the profession. In other words, the question had a direct reference to the meaning of the term "exclusive dogma" as mentioned in the Code, and as generally understood to apply to homœopathic practitioners.

The Comitia Minora had only one of two courses to pursue: either to ignore the question altogether, or to meet it as they did. The latter was the only proper one, and proves a liberality of spirit which is commendable. We confess to such an abhorrence of sectarianism in science, of narrow-mindedness upon doctrinal points in religion, of pharisaical perfection of opinion upon any point, that we took occasion to commend the action of the Comitia upon the question at issue. Unless the committee showed a partisan spirit, evinced a disposition to dodge a plain duty, or was tempted to yield to the impulses of mere prejudices, it could not have given a different answer. It was the interpretation of the letter and spirit of a portion of the law by which the members of the Medical Society of the County of New York are governed. When the report came up on its passage, the Society chose to express its opinion in its own way, and there

it rests for the present. As a matter of fact, the Society stultified itself by its vote; but with the majority of the members the end justified the means, as it gave an opportunity of condemning professional association with homœopaths on any terms.

As regards a strict interpretation of that portion of the Code referred to by our correspondent as governing regular practitioners, we are, technically speaking, as badly off as with the other question of exclusiveness. Many so-called homœopaths really have a "license to practise medicine from some medical board of known and acknowledged respectability recognized by the American Medical Association," and have likewise a "good moral and professional standing" in the place in which they reside. Technically speaking, this portion of the Code would shield every so-called homœopath who graduated from a regular medical school. A regular graduate does unquestionably forfeit his professional standing by practising empiricism and exclusiveness; but when he does neither, and declares himself a medical practitioner pure and simple, the Code cannot prevent him from holding opinions of his own regarding the action of particular drugs, or of using said drugs in any dose he may deem proper. The recognition of the diplomas of Homœopathic medical colleges is altogether another matter, and can be considered only as indirectly relevant to the present question.

The very natural inquiry suggests itself in this connection, whether or no the Medical Society can refuse admittance to any so-called liberal homœopath, if such should apply. All that would seem to be necessary would be to drop the title of his sect, and become as eligible as any ordinary candidate. Any doubts upon this subject could be very easily settled by a test case. Once having gained admission into the Society, there is no possible hinderance to the freest professional intercourse. Even the stringent rules proposed by our correspondent could hardly have any influence in the opposite direction.

We make these comments not only for the purpose of correcting the false impressions of our critic, but of gentlemen who may take a similar view of the subject. It is with no desire to militate against the provisions of the Code, but to interpret the latter with strict impartiality, to state the plain facts of the case with a view of suggesting necessary or possible changes, and to advocate the cultivation of that liberal spirit which opposes dogmatism as much on one side of the question as the other.

In conclusion, then, even at the risk of differing with our correspondent, we still maintain that if it is the desire of the County Society or of the profession generally to exclude from fellowship all those who are connected with homœopathic organizations, or who practise homœopathy, then, it will be obviously necessary to enact a suitable by-law or procure a necessary amendment to the Code.

## MEDICAL ADVERTISING IN CHICAGO.

THERE is a disposition in Chicago, as well as in other cities, to take advantage of the ordinary facilities for advertising in the daily papers. We do not of course mean to say that the gentlemen whose names, with titles, etc., are appended to the advertisement of a certain officiner there have anything to do with the matter, but they will no doubt rejoice that the Chicago Medical Society has determined to help them out of their difficulties by the following resolutions:

*Whereas*, In several of the daily papers there has appeared the advertisement, to wit: (Here follows text of same, to which reference has already been made.)

*Therefore, Resolved*, That the Chicago Medical Society considers this advertisement an offence to the honor and dignity of the medical profession.

*Resolved*, That the Secretary be instructed to notify these physicians that their names are being used in this manner, and request of them an explanation.

This movement will probably end the difficulty and give the gentlemen that moral support against the wiles of the ordinary and venturesome advertiser which they have heretofore, by all appearances, so much needed.

## A NEW CAUSE OF DEATH IN DOUBTFUL CASES.

THE report of a rather curious case comes to us from Washington, D. C., which may interest some of the pathologists, and give them a new cause for death in doubtful cases. It appears on a certain evening that a poor German woman fed herself and three children with uncooked Bologna sausage. Within two hours the children were taken sick with "coldness, paleness, blueness of the lips, and vomiting." The youngest, two years of age, died shortly after the attack. The mother, and also a colored man, who had partaken of the meat, suffered from the same symptoms. The stomach contents were examined chemically for poison, but none being found, the coroner's jury rendered a verdict of "indigestion."

This is certainly an easy method of disposing of an obscure case. It may be stated that no trichinae were found in the stomach contents, a fact that will surprise no one who is at all acquainted with the symptoms, and mode of death in the trichinous disease. The report that no poison was found as the result of chemical analysis is hardly conclusive that the child was not subject to septic influences. In the absence of direct experiments upon the lower animals with the suspected sausage, this part of the question would necessarily remain open for discussion. Still, we are informed that the deputy coroner who made the autopsy "saw at once, on opening the stomach, that indigestion was the cause of the death," and consequently did not think it was necessary, after the chemical examination, to proceed further in the examination. As if, however, to point a moral to this

truly remarkable case, he volunteered a public declaration to the effect "that any child two years old that ate Bologna sausage ought to die." The uncharitableness of one statement is only equalled by the unscientific character of the other. If this case can be considered a precedent in establishing a new cause for death, it will lighten still more the labors of deputy coroners, especially when a full stomach is discovered post-mortem. In the meantime it may be well with mothers of two-year-old children to look sharp after raw Bologna sausage, and keep the dreadful consequences of indigestion constantly before their minds.

## Correspondence.

## HOMOEOPATHY AND EXCLUSIVENESS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Under the above caption there appears, in the RECORD of the 10th inst. (vol. xiv., p. 111), an editorial in reference to the report of the Comitia Minora and to the action taken by the County Medical Society thereon, and in it the report meets with a *quasi* approval. It is evident the Comitia did not go far enough; there should have been a third section added to the report, viz.:

"*Therefore*, appreciating the honesty of intention of the majority of the Homeopathic Medical Society of the county, we cordially invite them to present their credentials to the Comitia Minora of this society for further action."

This would have enabled the scrupulous querist of the County Medical Society to have awaited the *further action*, instead of possibly shielding himself behind the ground taken by the editorial in question, to wit: "and as there is no provision *against consultations* with homeopaths as such, but simply *against them as exclusives*, when their *exclusiveness* is dropped that portion of the Code necessarily becomes null and void."

This argument is specious, and if the editorial is correct in its premises, the morbidly conscientious querist might with equal plausibility, under its soothing influence, consult with eclectics. Moreover, the position assumed is utterly untenable, for it rests on the last sentence of Section 1, of Article IV. of the second part of the Code. While the first and second sentences expressly state the object and intention, *i. e.*, that a practitioner, to be recognized as regular, is one "who has a license to practise from some medical board of known and acknowledged respectability, recognized by the American Medical Association, and who is in good moral and professional standing in the place in which he resides. . . ." Query: Does not a regular graduate forfeit his professional standing by practising empiricism, exclusivism so called, and by joining associations which uphold similar doctrines? If so, he must recover his status through "some medical board of known and acknowledged respectability, recognized by the American Medical Association," before he can be again recognized as regular.

Therefore, no new enactments are required against homeopathy or empiricism. It is only necessary to strictly enforce the purposes for which the County



Medical Society was originally founded, and that are now the basis of a fundamental law of this State, *i. e.*, the recognition of physicians; and to be so recognized they must, according to law, be members of an incorporated county society. There are three such societies in this county; the Regular, founded in 1806, the Homœopathic, and the Eclectic. Take your choice, gentlemen: which shall it be, one or all?

I believe the majority of the New York County Medical Society are satisfied with ours. However, lest there should be some over-scrupulous members, fearful of the *qualms of conscience*, lest they should refuse to consult with any physician who is not a member of a society recognized as a regular one, it might be well for the State Medical Society, at its next meeting, to adopt the following amendment to the Code, or one of a similar nature:

*Any member of a county medical society who shall consult with or meet professionally any physician who is not either a member of the society of the county in which he resides, or of a kindred society of another county, shall forfeit his membership. This liability shall also apply to professional intercourse with the physicians of other States who are not members of a society recognized either by the American Medical Association or the Medical Society of the State of New York.*

It might be objected that recent graduates would be affected by it; but such would not be the case, for a graduate could receive his credentials within sixty days from the date of his graduation.

Again, the old complaint of the want of a register. This want, under the stimulus, would soon be done away with. For the New York Medico-Historical Society would supply the deficiency; it has already shown its earnestness in this matter, which, under its new editorial management, will receive a fresh and healthy impetus.

In thus expressing myself I am not moved by any spirit of exclusiveness, but would on the contrary, while drawing the lines tighter, meet the majority of the Homœopathic County Medical Society in the most catholic spirit, and extend to it the right hand of fellowship, as our society has done once before, by restoring to his status a wayward brother, who had the manliness and honesty to confess the error of his ways and to recant his heresies. Forsooth! We have even elected him president of our society, which position he fills with credit and honor to both himself and the profession at large.

Your truly,

MEDICAL ETHICS.

NEW YORK, August 16, 1878.

## THE LITERATURE OF SUSPENSION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The MEDICAL RECORD of May 4, 1878, contains a note from Dr. C. T. Hunter, of Philadelphia, announcing the discovery of the fact that suspension was used in the treatment of *Rickets* by Francis Glisson, Fellow of the College of Physicians of London, in the seventeenth century, and was described by him in a work published in 1668.

This communication is prefaced by the remark that "For the present, and perhaps until Hippocrates or Galen are heard from, a very important question of priority seems to be settled."

While frankly allowing that I am not authorized to speak for either of those gentlemen, and with all due deference to the editorial *dictum*, I must beg to be allowed to consider the question as still open. Your

correspondent need not have gone so far for his information, as he could have found it in full in the introduction to Mr. Heather Bigg's valuable treatise on Orthopraxy, published in 1865, together with much other interesting antiquarian matter.

In whatever I have written myself in this connection, I have taken pains invariably to speak of suspension in the treatment of spinal affections as a *revival* and not as a *novelty*. What I have claimed should be set down to the credit of American, and further, of Philadelphia surgery.

*First*.—Its revival, so far as its present extensive use in this country and Great Britain is concerned; and

*Secondly*.—Two important modifications in its mode of application.

The first of these modifications is that of Prof. J. K. Mitchell, of this city, which consisted in combining suspension with free locomotion by means of an apparatus which he denominated "The Spine Car," and with which he treated a number of cases of vertebral disease most successfully. The perfect mechanism of Darraeh's wheel-crutch, modified for this purpose at my suggestion, a figure of which may be seen in my monograph on "Suspension in the Treatment of Spinal Distortions," from the "Transactions of the American Medical Association," furnishes us with an appliance, however, which is immensely superior to that which Prof. Mitchell was obliged to depend on.

The second modification is my own trifling one, which places the suspension under the control of the patient, first described by me as "modified suspension," but now better known under Dr. Sayre's designation of "self-suspension." I have never seen in print any description of either of these methods, and until such descriptions can be indicated I shall continue to insist that the credit of priority in their employment is due where I have rendered it.

It is true that, as regards the second modification, Glisson speaks of the "hands" being "received by two handles," but he gives no hint that the hands had any part in producing the suspension, an omission which could not have occurred had such been the case.

Various efforts have been made to re-introduce suspension in England since Glisson's time. Among the more recent of these may be mentioned that of John Shaw, who, in 1827, published "Observations on the Causes and Early Symptoms of Defects in the Form of the Spine, Chest, and Shoulders." His suspensory apparatus was attached to the back of a chair, and the traction was exerted by weights acting over two separate pulleys on both the head and shoulders at once.

Following him, Mr. R. A. Stafford published "Two Essays on Diseases of the Spine," in London, in 1844. His apparatus also provided for the use of the hands as a means of relief for the extended neck, but there was no connection between the cords which bore the handles and that which carried the head-piece. It was also furnished with movements for making lateral pressure. He denominated it "the spinal elongator."

In a modified way suspension is also now in use in Germany. Mr. Friedrich Robert Nitsche, Director of the Gymnastic Remedial Institute (Orthopædeon), in Dresden, in a profusely illustrated brochure on the "Cure of Deformities," figures a boy supported by the head, from a spiral spring, so that he rests upon tip-toe. I have elsewhere seen an illustration representing extension made by walking down a slight inclined plane, the head being supported from a cord attached to a wheel running on a track.

Delpsch, in the superb atlas accompanying his elab-

orate work, "De l'Orthomorphie, par rapport à l'Espèce Humaine," alludes to partial suspension by weights as an expedient for allowing those who were being treated by recumbency to assume the upright position for a time. He gives a curious figure of a girl seated at the piano, while the head is supported at an angle by a cord passing through the back of a swan and terminating in a weight concealed in a columnar pedestal.

These instances by no means exhaust the literature of suspension, but they are sufficient to show that the idea of giving relief in this manner to inflamed vertebrae suffering under the superincumbent weight of the head and upper trunk, has probably always been present in the minds of intelligent men who have given the subject of these affections serious thought. On the other hand, those gentlemen who are anxious to deprive Philadelphia of whatever share of credit may belong to her in this matter will be compelled to prosecute their researches much more deeply than I have done mine, before they come upon any description of the two special methods to which I have alluded, in the musty tomes which enshrine the wisdom of the ancients.

BENJAMIN LEE, A.M., M.D., PH.D.

PHILADELPHIA, 1503 SPRUCE STREET, July 20, 1878.

## ARSENICAL POISONING FROM, PROBABLY, A NEW SOURCE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Allow me through your columns to call attention to two cases of *arsenical poisoning* I have met with in this vicinity, and which, from the danger of frequent occurrence, are of interest not only to the profession, but also to the community at large, and especially to all small boys.

In the first instance, two young ladies had helped themselves to apples which grew on the edge of a potato-field. One experienced no trouble, while the other suffered from a severe attack of arsenical poisoning. About two weeks subsequently another woman was affected, though in a less degree, from the same cause, who had also procured her apples from a potato-patch, but in a different locality from the first.

In each case but one or two apples had been eaten. The poison, "Paris green," had probably adhered to the fruit in powdered form, or had been washed over them by rain or dew, and being devoid of taste or odor, was eaten without suspicion.

The moral is, always wash or pare your apples, as what has happened may occur again, and possibly with more serious results.

Respectfully yours,

WM. BADGER, M.D.

FLUSHING, LONG ISLAND, Aug. 12, 1878.

## CORROSIVE SUBLIMATE IN INTESTINAL CATARRH.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Dr. Ravenburg's communication in your number of July 6th was read by me with a great deal of interest, and gave me much instruction. I was at that time giving three children corrosive sublimate for intestinal catarrh. Each one was completely cured, and more rapidly than is customary from other methods of treatment. My usual recipe is  $\frac{1}{4}$  to  $\frac{1}{2}$  grain corrosive sublimate to fl.  $\zeta$  iv. of water—teaspoonful every two or three hours—and the improvement result-

ing is marvellous in properly selected cases. This remedy, more than any other, can be selected from its physiological action. The mucous membrane of the stomach and intestinal canal is physiologically inflamed and ulcerated by it in large doses; the abdomen is sensitive and tender; the stools are greenish and sometimes yellow, always having a quantity of blood and slime, with a great deal of violent tenesmus, and frequently an excruciated feeling about the anus, burning and colicky pain in the abdomen—all evidences of violent gastro-intestinal irritation. The pulse is small and weak, and the surface cold. This is the constant physiological action of this drug, and its therapeutic action may be, as Bartholow expresses it in regard to belladonna as a remedy for sore throat, "the physiological antagonist of the diseased action." Others might call it a proof of the law of similars; but it is immaterial how it is accomplished. I am inclined to accept the idea that it destroys microscopic germs. It is no matter which theory is accepted; use at the bedside proves that it does act marvellously well, and for the busy practitioner this is enough, as the end and aim of our effort is to cure. If the picture of drug-poisoning is borne in mind and applied, corrosive sublimate will give best results.

One of these three children, two years of age, was sick three weeks before my first visit, and had been dosed with calomel, two grains at a time, castor-oil, paregoric, etc. I found her having fifteen actions in twenty-four hours, most of them small; a great deal of mucus and a little blood, with some straining; others of a dirty, greenish water. She had fever, was very weak, and considerably emaciated. I directed that she should have three or four baths each day, of pleasantly warm water, a diet of chicken-water and boiled cow's milk, whiskey three times a day, and  $\frac{1}{4}$  grain of corrosive sublimate to four ounces of water, teaspoonful every two hours. In forty-eight hours she was much better, and dismissed in one week, rapidly convalescing. This child's symptoms were clearly allied to the physiological action of the drug, and her improvement was from commencement of treatment, and was continuous.

Corrosive sublimate is, according to Dr. Keyes, positively a tonic, and makes red blood. The second child's history proves this. She was three years old, but had been sick months, emaciated to a skeleton, badly fed, and having constant fever. She was having many actions in twenty-four hours; they were very offensive, generally small, some straining. I diagnosed a chronic intestinal catarrh involving both small and large intestines. Ordered a strictly milk diet, whiskey, sponge-baths each day, corrosive sublimate every two hours. Did not see patient for three weeks, and found that she had gained flesh and color. Bowels were now moved about four times in twenty-four hours. She had taken corrosive sublimate continuously, but, after first few days, not oftener than every three or four hours. In her case it seemed to rescue her from the grave.

The third case is a girl of fourteen months. She nurses her mother, but as the mother does not give sufficient nourishment, she is partially fed on cow's milk. She is very backward in teething, having now only four teeth. Had no fever, but a diarrhoea, which had very much pulled her down, and had not yielded to a month at the sea-side, the usual treatment of bismuth, opium, astringents, etc. Had once or twice been withdrawn from cow's milk, and in its stead chicken and beef broth used. She, when I first saw her, was very puny, considerably emaciated, muscles soft and flabby, and anæmic. Diarrhoea had been sev-



eral times controlled; but, this control ceasing after a few days, she was having eight to ten actions in twenty-four hours, of a grayish, pasty color mostly, some slime, but no blood or straining. Prescribed milk diet (cow's milk boiled), and, of course, continued to nurse her mother; whiskey, corrosive sublimate. I would have used gray powder, after Ringer, but could find none which I considered good in town; so I ordered the corrosive, believing that it would act both as a tonic and relieve her diarrhœa. She improved apparently from the first dose, and continued mercury regularly only about one week, and now (Aug. 5th), with the thermometer in the nineties, is having two actions in the twenty-four hours, has better color, and her mother says is well.

I have treated both acute and chronic bowel affections in adults as well as children, with this drug, and bear testimony that Ringer is right in recommending it as highly as he does.

CHARLES H. HALL, M.D.

MACON, GA., August 13, 1878.

## EXPERIENCES IN THE TREATMENT OF YELLOW FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I wish to write briefly of my experience and observations in yellow fever and its treatment as it occurred three successive seasons in one of the southern cities. The first epidemic found the physicians of the place without practical familiarity with the disease, so that authorities were largely consulted and followed in the management of the cases. The epidemic proved of great severity, and in the more malignant attacks was little amenable to the remedies used. Eminent physicians from other cities, with large experience in the malady, were present to counsel and aid. The treatment was little varied. The hot mustard-bath, followed by putting the patient under a multiplicity of blankets, giving hot drinks; laxatives—and often cathartics—quinine, and in some instances calomel, given at stated intervals; blisters to epigastrium, cold to head, neck, and shoulders; stimulants, nutriment. Perfect quiet in bed was always directed. The mustard-bath was presumed to shorten the initiatory chill, and sooner dispose to the perspiration succeeding the bath. Omitted or used, I could never see that the course of the disease or the comfort of the patient was in any manner influenced by the perspiration, be it moderate or profuse, for it may be said that a moist state of the skin very generally attends the disease, and may be almost regarded as a symptom. In itself, the bath may be simply soothing and without objection, but the subsequent blanketing was always a source of great discomfort and strongly objected to. The chilliness that often returns during the pyrexia is not relieved by additional covering, and does not depend on lowered temperature.

As to mercury. So far as I have witnessed, no *pure case of yellow fever* will tolerate mercury in any form. It regulates no function, restores no secretion, relieves no symptom. In all cases of malignancy it is much more than worthless; it is hurtful to an extreme degree, and will induce a fatal result where, if omitted, and other measures are used, a recovery might follow.

Where the poisons of yellow fever and of common intermittent are blended, as they often are, giving to yellow fever a mild type, mercury is not only borne, but is often prompt and curative. But even here caution is requisite in its administration.

*Blisters.*—There may be epidemics in which vesica-

tions are permissible, but taking the most favorable view of their action, they can have slight influence for good. Blisters cause excessive local pain, bring on general irritability, increased nervousness, depression, and debility. My experience is wholly adverse to their employment in this disease.

*Drinks.*—No routine should govern in their selection and exhibition, but it may be said that hot fluids are really more grateful to the stomach, in most cases, than cold. The sense of thirst is urgent and peculiar, being seemingly diffused throughout the system. Patients will express a wish that streams of ice-water were running through them, when, if ice or cold water is placed to their lips, it will cause nausea, chilliness, and disgust. Very hot water, under this condition of affairs, best meets the want, and may be given freely or sparingly, as the effect may determine. Teaspoonfuls of hot acid drinks are grateful to the patient, are soothing and refreshing, and, much more than iced water or ice, allay thirst. During the first hours of the attack, hot drinks may be taken in free and repeated draughts with advantage. Thirst is often best administered to by simply keeping the mouth moistened. Quinine is tolerated in mild forms of yellow fever, and where intermittent miasm blends with that of the epidemic, and aids in giving character to the disease. In these mixed cases it is of essential benefit, usually, but not universally, with a degree of efficacy. In malignant yellow fever it has no place, so far as I have seen.

*Nutriment.*—This certainly is of the first importance, and requires as much skill and watchfulness in its administration as do drugs.

The stomach will receive kindly only small quantities at intervals. My observations are to this conclusion: that a large majority of patients will like and retain chicken-broth, and be benefited by it more than by all other foods.

*Stimulants.*—Not all cases are equally benefited by these. In the congestive form, where the surface is cool or only moderately warm, it was my practice to begin their use early—often the second day—and in full quantity; and the reward is often cheering. Where the fever runs high, their action is questionable, even when the vitality wanes. This is true of deeply malignant cases.

The *bowels* demand daily care. The constipation which attends the disease is usually combated by laxatives, enemas, and so on. In my experience, seidlitz powders, given once or more during the attack, not only did not disturb or offend the stomach, but, in many instances, were a material aid in giving a favorable turn to the disease. For the tympanitic condition of the abdomen, enemas containing carbonate of soda, gum fetida, and minute quantities of aloes, acted not only promptly and delightfully, but often snatched the patient out of a state of great danger, and established improvement.

Nausea is present in nearly all the cases, continuously or intermittently. It is a symptom always looked upon by the physician with dread, and its removal is hailed as a harbinger of good. It greatly annoys the patient, and excites apprehension in his mind. Poultries or warm-water applications to the epigastrium, soothe and give some relief, and, indeed, are very important throughout the first stage of the disease. Baffled in the trial of all other remedies for this symptom, I adopted as a plan of treatment a dose containing ioidid. potass. gr. ij., Fowler's arsenical solution, gtt. ij., and given every two to three hours. This was given through the entire disease, beginning the second day. Its effects were uniform in holding the nausea

at bay, and relieving the tenderness over the stomach, and, as I have every reason to believe, is an important curative element in the treatment. It is certain I had no case of black vomit or death after I began this course.

Its use kept the stomach comfortable and tolerant of food and such gentle remedies as were thought best in the case. I do not give these two remedies as specifics, but as having proved in my hands of singular efficacy. It is possible that in other localities and in other epidemics their use might disappoint the physician.

Opium. I am aware that very generally this article is placed in the *index expurgatorius* of yellow fever materia medica. It is a drug that depends for its remedial action on the stage of the fever in which it is given. Administered with the accession of the fever and when the sufferer is writhing in universal pain, and given in sufficient quantity, it will not only relieve and give gentle rest, but clear up the troubled atmosphere of the brain, and roll back every darkening cloud from the mind, and leave no vestige of opium stupor or even drowsiness. But if given to check vomiting or diarrhoea, or restlessness after the first twenty-four hours, and then in small quantities even, it induces new symptoms and endangers the patient. I cannot better vindicate my position and its claims to trial than by a recital of the first case subjected to its use.

Mr. M., ten days after his return from New York, was seized, without premonition, with chill of short duration, rapidly succeeded by intense reaction. I was called almost immediately, and saw him within an hour and a half after the attack. In this brief time the disease in its most severe form, had written itself on his features, and was manifesting itself in the semi-stupor and delirium marking this type. Increasing restlessness; turning or rolling from one side of the bed to the other; skin burning, pungent, and sticky; great thirst; pains in head, neck, back, and legs—pains all over, as he said when roused for a time from his muddled delirium. Pulse 40 and non-resisting. I have never seen a case having more of malignant symptoms, and was one of that catalogue of cases that usually terminate, in thirty-six to forty-eight hours, in black vomit and death. Consulting with the case thirty or forty minutes, and fully analyzing his condition, weighing all probabilities of death under ordinary remedies, I gave  $1\frac{1}{2}$  grs. morphia, with instructions to give  $\frac{1}{2}$  gr. more at the expiration of two hours, if at that time there should be like delirium and restlessness. This was at the hour of 9 p.m. At midnight I was again at his bedside, to witness gentle, refreshing, natural sleep. Pulse had risen to 60; the temperature reduced; was easily awakened; spoke intelligently, and said he felt better. He had taken the second dose of morphia. He was directed to take, in limited amounts, hot lemonade and simple chicken-broth during the night. Second day, 9 a.m.: Rested well; sleep was calm, with frequent awaking for brief intervals during the night; awoke quickly to perfect intelligence. Asked as to the probable termination of his illness, and was told that, although he might get bleeding from the mouth and nostrils on the fourth day, yet I thought I could assure him of his recovery. Further treatment was confined to the 2 grs. iod. pot. and 2 gtt. ars. solution every three hours until convalescence was established. During third day he was given malt liquor, ad freely, rich chicken-broth, and from this time he took warm lemonade as a drink. Hemorrhage in mouth came on on fourth day, but no tendency to black vomit.

Bleeding ceased in twenty-four hours. He made a good recovery, and was attending to business in eleven days from date of the attack. Sidlitz powders were given daily in this case, and seemed to exert not only laxative results, but were among the means of cure.

It is proper to say that this special treatment was not instituted until the return of the yellow fever the second year, and was the result of an unsparing and critical review of practice and its results in the first epidemic. My success was not flattering in that year, and caused me to seek a different treatment, being entirely disgusted with my first effort. It is true it happened to me to treat the disease in one of those centres of concentration of the poison met with in all epidemics, and where all remedies are usually at fault; but during the following two years I met with cases marked by symptoms of great malignancy, which yielded to the practice above detailed. Opium, if given, should be prescribed in such doses as thoroughly to antagonize the pain, and in controlling it the effect is to greatly lessen the febrile movements, and favorably modify the course of the attack. But I simply write of my experience, and refrain from discussing the theory of remedial action.

Very truly yours,

EDMUND FOWLER, M.D.

1 WEST 45TH ST., Sept. 2, 1878.

## PARALYSIS OF BLADDER BY BELLADONNA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the number of your journal dated August 3d is an article by Dr. O. G. Selden, entitled "A Large Dose of Strychnine, with Recovery. Temporary Paralysis of the Bladder." The treatment consisted chiefly in the use of belladonna. After a hypodermic injection, containing five drops of Tilden's fluid extract of belladonna, the narrator says he "directed four drops of Tilden's fluid extract to be given every two hours, until extreme dilatation of the pupil took place, and continued every few hours thereafter. It is unnecessary to detail the treatment day by day; it consisted in giving belladonna. . . . After about ten days perfect paralysis of the coats of the urinary bladder came on, and the regular use of the catheter was necessary for about two weeks, when the normal function of the bladder was gradually restored. . . . "Query," adds Dr. Selden, "is vesical paralysis a common symptom in those who survive strychnine-poisoning?"

Sir Henry Thompson ("Holmes' System of Surgery," 1870, vol. iv., page 905) says: "I have met with a single case of permanent loss of power in the bladder, attributed to an overdose of belladonna. Certain it is, that the effect of hyoscyamus and belladonna is frequently to produce temporary paralysis; and in this manner they combat undue irritability of the organ for which they are so constantly prescribed.

Query: Should not the temporary paralysis of the bladder observed in this case be attributed to the doses of belladonna?

T. B. C.

BOSTON, MASS.

ANTIDOTE FOR CARBOLIC ACID.—M. Ferrand recommends the following as an antidote for carbolic acid: white sugar, 15 parts; water, 40 parts; quick-lime, 5 parts, forming a saccharate of lime.—*Gazette des Hôpitaux*, No. 71.



## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 25th to August 31st, 1878.*

FRYER, B. E., Major and Surgeon. Granted leave of absence for twenty-two days. S. O. 153, Dept. of the Missouri, Aug. 26, 1878.

NOTSON, Wm. M., Major and Surgeon. When relieved by Asst. Surgeon Koerper, to comply with S. O. 176, C. S., A. G. O. S. O. 77, C. S., Dept. of the Platte.

BROWN, H. E., Capt. and Asst. Surgeon. Seven days' leave extended one month, with permission to leave the Department. S. O. 181, Dept. of Texas, Aug. 26, 1878.

KOERPER, E. A., Capt. and Asst. Surgeon. Assigned to duty at Fort McKinney, Wyoming Territory, relieving Major Notson. S. O. 77, Dept. of the Platte, Aug. 20, 1878.

CLEARY, P. J. A., Capt. and Asst. Surgeon. Leave of absence extended one month. S. O. 65, Div. of the Missouri, Aug. 26, 1878.

STEINMETZ, Wm. R., Capt. and Asst. Surgeon. Granted leave of absence for one year. S. O. 186, A. G. O., Aug. 28, 1878.

BRECHEMIN, L., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at the new post to be established near camp "J. G. Sturgis" (Bear Butte, D. T.), by Major Lazelle, 1st Infy. S. O. 102, Dept. of Dakota, Aug. 27, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 31, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Aug. 24, 1878. | 0             | 22             | 35             | 2                          | 1        | 27          | 0          | 0             |
| Aug. 31, 1878. | 3             | 34             | 51             | 4                          | 7        | 22          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., August 31, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during past week under the National Quarantine Act:

*New Orleans.*—During the week ending yesterday noon there were 1,204 cases of yellow fever and 333 deaths, making in all 2,877 cases and 867 deaths. During the twenty-four hours to noon yesterday there were 169 new cases and 59 deaths.

*Vicksburg.*—During the week ending yesterday evening there were 116 deaths from yellow fever, making 185 deaths in all, 17 of which occurred during the last twenty-four hours. It is estimated that 800 cases of fever have occurred to date, about half of these in the past week, and 59 new cases in the last twenty-four hours. Dr. Booth, in charge of the patients of the Marine Hospital Service, died the 27th.

*Memphis.*—721 cases of yellow fever and 241 deaths for the week ending Aug. 29th.

*Morgan City, La.*—The refugee reported last week sick of yellow fever, died Aug. 23d. 7 other cases have since occurred, and 4 deaths in all to yesterday noon.

*Bay St. Louis, La.*—1 death from yellow fever occurred the 18th inst.

*Ocean Springs, Miss.*—3 cases of yellow fever occurred yesterday morning. No deaths during the week.

*Water Valley, Miss.*—2 cases yellow fever, both refugees; the first occurred on the 12th, and is convalescent; the second on the 26th, which terminated fatally yesterday.

*Holly Springs, Miss.*—7 cases of yellow fever and 2 deaths to yesterday evening, all refugees. Good health in the city and the U. S. Military camp.

*Leighton, Ala.*—A refugee from Memphis arrived Aug. 18th, and died of yellow fever Aug. 24th.

*St. Louis.*—8 cases of yellow fever during the week and 2 deaths, all refugees. At quarantine, below St. Louis, there were 6 new cases and 1 death, besides 20 doubtful cases admitted during the forty-eight hours ending yesterday eve.

*Cairo, Ill.*—A river boatman, from Memphis, died of yellow fever Aug. 24th.

*Louisville.*—Since last report 11 refugees and boatmen have been attacked with yellow fever after arrival in Louisville, 4 of whom have died.

*Cincinnati.*—9 cases of yellow fever, 5 from steamboat "Golden Rule," and 4 deaths have occurred since last report. Two of the deaths were the cases reported last week. All came from infected places South.

*Wheeling, W. Va.*—Case reported through the press on the 28th, officially pronounced not yellow fever.

*Pittsburg, Pa.*—A deck-hand on the steamboat "John A. Porter" arrived Aug. 25th, and died next day of yellow fever.

*Philadelphia.*—2 cases of probable yellow fever occurred Aug. 24th, the persons having arrived from Vicksburg a few hours previously. They were immediately removed to the hospital for infectious diseases.

*Havana.*—71 deaths from yellow fever and 6 from small-pox during week ending Aug. 24th.

*Clifton, England.*—The U. S. Consul at Bristol, England, reports a severe outbreak of enteric (typhoid) fever at Clifton, near that place; which had been traced to the use of milk from a farm where the pump is five yards from the privy vault. Previous to the outbreak a young lady had been carried to the farmhouse to complete her convalescence from enteric fever. A wholesome lesson is given in the action of the medical officer of health, who notified the farmer that if he let any member of his family use the contaminated pump-water and disease arose from it, or if he sold any milk and disease arose from it, he would lay information against him of having committed manslaughter.

*Trieste, Austria.*—Some cases of the plague have occurred at Trieste. Advices to Aug. 17th.

No reliable information received from *Key West*, and no official reports obtained from *Grenada, Canton*, and *Port Gibson, Miss.*, and *Port Eads, La.*

Reports from other places indicate good health.—Jno. M. Woodworth, Surgeon-General U. S. Marine Hospital Service.

REPORTS up to the evening of September 4th indicate that the yellow fever is still extending with undiminished fatality in the infected towns, Vicksburg perhaps excepted. Strict quarantine has been estab-

lished at St. Louis, and no trains or boats from fever districts are allowed to approach the city. The Boards of Health of our larger cities are generally active in enforcing strict sanitary regulations.

**AID FOR SOUTHERN PHYSICIANS IN THE YELLOW FEVER DISTRICTS.**—A special meeting of the Medical Society of the County of New York was held at the College of Physicians and Surgeons, on the evening of September 1st, "to provide ways and means for aiding the suffering physicians of the Southwest and their families." Seventy-five members were present last evening. Dr. John C. Peters, President, occupied the chair. Dr. Alexander Hutchings, President of the Kings County Medical Society, said his society had raised \$315 in private subscriptions, to be applied to relieving the wants of Southern physicians. A general discussion of the best means of aiding the over-worked doctors of the South was participated in by Drs. Janeway, Polk, Harris, Bozeman, Flint, and others, when a resolution was adopted providing that the five officers of the society shall be a committee to receive subscriptions, with power to disburse the money to certain physicians agreed upon by the committee in each of the fever-stricken cities. The physicians so selected are to distribute the money among such doctors as they think need assistance. In such an epidemic as that now existing the doctors receive no revenue from their practice, and it is believed that the number needing help will be large. Bishop Quintard, of Tennessee, briefly addressed the meeting, and read letters from some of his parishioners, showing a most terrible state of affairs in Memphis. Subscription papers were passed around, and in a few moments \$471 was collected. A large part of this amount was paid on the spot in cash and checks. Besides this sum, between \$200 and \$300 had been previously raised by private and unsolicited subscriptions. A check for \$100 was received from William Wood & Co., publishers, and another \$100 from a non-resident member of the Society. It is expected that all the members will contribute according to their ability, and a large sum will no doubt be realized. The committee appointed to receive and distribute the funds are Drs. John C. Peters, President; Isaac E. Taylor, Vice-President; H. P. Farnham, Treasurer; F. A. Castle, Corresponding Secretary; and A. E. M. Purdy, Recording Secretary. The fund is to be devoted exclusively to aiding physicians and their families, and the committee will be glad to receive subscriptions from medical men and others outside of the city.

**DR. FRIEDRICH SANDER, Medical Director of the General Hospital in Hamburg, died suddenly of hæmoptysis on May 4th.** He had been suffering for six weeks from a chronic pneumonic affection that was attended by remittent fever and a few slight attacks of hæmoptysis, but nevertheless his sudden death was entirely unexpected. Dr. Sander had been but a few weeks in his important position, when he was overtaken by what proved to be his last illness.

**COMMON SALT AS A REMEDY FOR INTERMITTENT FEVER.**—Dr. Brookes recommends for periodic fevers a very simple method of treatment, the efficacy of which he has often demonstrated in his travels in America and Hungary. He takes a good handful of table salt and roasts it in a clean, and if possible new, pan over a gentle fire, until it assumes a brown color like that of roasted coffee. When the patient is a vigorous adult, a good tablespoonful of this salt should

be dissolved in a glass of warm water, and the whole swallowed at a dose. When the fever recurs at intervals of 2, 3, or 4 days, the remedy should be taken fasting on the morning after the day of the paroxysm. When the thirst excited by the salt becomes insupportable, a little water may be allowed to the patient, but it should be sucked through a straw. For 48 hours after the remedy has been taken, no food should be allowed except some beef or chicken soup; it is particularly necessary to observe a strict diet and to avoid chilling of the body, during this period. Dr. Brookes asserts that he has employed this method of treatment for eighteen years, and invariably with success.—*Gazette des Hôpitaux*, May 4, 1878.

**TOPICAL TREATMENT OF ACNE ROSACEA.**—The following treatment is said to have produced prompt and decisive effects in cases of acne rosacea; the pustules are touched by means of a small pencil with a weak caustic composed of hydrochloric acid diluted with from three to ten parts of alcohol, the length of the application depending on the volume of the pustules. The caustic is then dried off with a tampon of cotton and the part kept moistened by a solution of chlorate of potash (℥ i.—℥ iij. of water). This solution relieves at once the irritation produced by the caustic, and prevents the development of an inflammatory reaction. The application should be repeated every two or three days. Under its influence the pustules wither and dry up, forming crusts or scales that are thrown off after a time.—*La France Médicale*.

**PROF. LABAT, of Bordeaux, died recently of apoplexy, in the forty-sixth year of his age.** He was a skilful and successful surgeon, but has left behind him but few published articles. Up to the moment the cerebral hemorrhage occurred, he was apparently in his usual health, and, in fact, he was struck down while in the performance of his professional duties. Only two hours before, he had received the information of his appointment as Titular Professor of Obstetrics in the Medical Faculty of Bordeaux.

**PHTHISIS TREATED BY SILPHIUM.**—Dr. Laburthe reports the case of a young man in the second stage of phthisis, who recovered under the use of silphium. The history of tuberculosis was complete; the physical signs consisted in dulness, pectoriloquy, and abundant subcrepitant râles at the apex of the right lung. At first, six drops of the tincture of silphium were given daily, but the quantity was subsequently increased to twenty drops. At the same time cod-liver oil was administered and iodine applied externally; when required, opium was given to quiet the cough and atropine to combat the night sweats. After four months of this treatment the stethoscopic signs had completely disappeared, the respiratory murmur had become normal on both sides, and the patient had gained nine pounds in weight. The improvement has since proved permanent. Although in this case other measures of treatment were employed as adjuvants, Dr. Laburthe believes that the cure must be ascribed mainly to the silphium. He has often employed the drug in his practice, and generally with advantage. It is most useful in cases of phthisis that follow a slow course and are not attended by much hectic.—*Le Progrès Médical*.

**TREATMENT OF URIC ACID GRAVEL.**—Dr. Louvet, of the French navy, reports in the *Archives de Médecine Navale* the good results he has obtained by the use of the stigmas of maize in cases of uric acid gravel. It is a popular remedy in certain parts of the west of France, and Dr. Louvet has in several cases



known it to relieve, in the most remarkable manner, the pains which precede and accompany the discharge of the gravel. One patient in particular, who had obtained no relief from the waters of Vichy and Contrexeville, has had but one attack of nephritic colic since she began to take the stigmas of maize. This patient takes the medicine for 20 days, then leaves it off for 15 days, and so on. The single attack mentioned above, came on after a longer interruption of the remedy than usual. Dr. Louvet thinks that the remedy does not, like the alkalies, act by dissolving the uric acid, but that it merely prevents the agglomeration of the grains of acid in the kidneys, ureters, and bladder. It does not seem to excite diuresis. The stigmas should be gathered while they are still quite green, one or two months before the complete maturity of the ear, and they should be only partially dried. About two drachms of them should be boiled for ten minutes in a large glass of water, and drunk hot and without sugar, morning and evening.

**TREATMENT OF ALCOHOLISM.**—For the tremor of alcoholism Mr. Lauder-Brunton has found a mixture of iron and nux vomica the most useful remedy. He gives fifteen drops of the tincture of nux vomica, and twenty drops of tincture of iron at a dose. When the stomach is deranged, he administers bismuth and magnesia in equal parts, for some time before having recourse to the iron. When there is a tendency to insomnia he gives bromide of potassium at bed-time. When the desire for alcoholic drinks is great, he adds ten to fifteen drops of the tincture of capsicum to the mixture of iron and nux vomica. If this fail to have the desired effect he often uses a mixture of magnesia, sulphate of iron and oil of cloves, or an infusion of gentian with carbonate of ammonia. When the desire for alcohol returns at more or less distant intervals, it may be controlled by the bromides.—*British Med. Jour.*, May 4th.

**TREATMENT OF THE BROMIDE ERUPTION.**—Dr. Russell reports the case of an epileptic, on whom a generalized, painful pustular eruption broke out, while under treatment, by the bromide of potassium. She was at the time taking about four scruples of the bromide per diem. The eruption was at first papular, but soon became pustular. The pustules were all as large as a pea, and some of them as large as two peas; the base was surrounded by an inflammatory zone. When the bromide was stopped the eruption disappeared, but it reappeared as soon as the medicine was resumed. Dr. Russell at last added five drops of the liquor arsenicalis to each dose of the bromide; in a week the eruption had disappeared and no new pustules were afterwards developed.—*British Med. Jour.*

**TREATMENT OF CHOREA MINOR.**—In six cases of St. Vitus' dance in young persons, Dr. Pürckhauer has administered propylamine in daily doses of from fifteen to twenty grains, and has found it to exert a promptly curative action. In some of the cases the disease had existed only for a few days, and in others for several weeks; but it was controlled, as a rule, after three or four days of treatment. It is still uncertain whether the remedy is efficacious in all cases of chorea, or only in those which have been preceded by a rheumatic affection.—*Centralblatt für d. med. Wissen.*, No. 21.

**CÆSAREAN SECTION "POST-MORTEM."**—Public opinion in France is exercised at present about two cases of Cæsaean section performed post-mortem by

unqualified persons. In the first case the operation was performed, one hour after death, by an inn-keeper, at the request of a priest; the child was dead. In the second case the operation was performed by a butcher, at the request of the relatives of the defunct. The child was extracted alive, but died soon afterwards. There was every reason to believe that it would have lived if the operation had been practised sooner. Although in both cases a vain attempt had been made to find a surgeon before the operation was undertaken, the inn-keeper was fined five francs (one dollar), and the butcher fifteen francs (three dollars), for the illegal exercise of medicine.—*Le Bordeaux Médical*.

**A NEW MALADY AMONG THE POLISHERS OF CAMEOS.**—At a meeting of the *Académie de Médecine*, M. Proust read an article bearing the above title. In this work M. Proust studied the different stages in the manufacture of cameos, and the influence which each exercised on the health of the workmen. He showed: 1st. The cutting, during which the stone is imbedded in lead, exposes the worker to lead poisoning. 2d. The acids used to modify the color of the stone, produce a slight inflammation of the lining membranes of the air-passages, due to the absorption of the irritant acid vapors, some burns of the fingers and thickening of the epidermis. 3d. The engraving gives rise to no ill effects. 4th. The polishing of the cameo causes the lead poisoning, to which attention is called for the first time in this article. This affection, as described by M. Proust, resembles that observed among the lapidaries, among the polishers of mirrors and diamonds, and the cutters of glass and crystal.—*Gazette Médicale de Paris*, May 11, 1878.

**THE TREATMENT OF COLIC IN HORSES BY THE HYPODERMIC INJECTION OF CHLOROFORM.**—Dr. Morgan W. Ayres, of Montclair Heights, N. J., writes: "It may be of interest to the medical profession should their attention be called to the application of hypodermic injection of medicines in the treatment of disease in the lower animals to know that cases often occur requiring prompt and effective measures. It is well known that the horse is subject to attacks of colic, arising from numerous causes, and quick relief from the exhausting trouble is the only safe method of freeing him from danger. In the works on veterinary practice, the remedies prescribed are bulky, difficult of administration by a person alone, and moreover, taking a longer time to produce an effect than is desirable or safe to wait. In my own experience, I have found the hypodermic use of chloroform to be effective, swift in operation, and the after-effects less debilitating than the usual practice of 'drenches of turpentine, aloe, and opium.' I have used 20 minims of chloroform, followed by a similar dose in half an hour if the symptoms do not abate in intensity. I place the needle deep in the muscle, perpendicular to the surface, and have had no trouble following at the point of insertion. The dose is small in quantity, relatively, to the capacity of the horse, and I would not hesitate to use larger quantities till I produced the desired effect."

**TREATMENT OF HICCUGH BY PILOCARPINE.**—Dr. Ortille, of Lille, states in a letter published in the *Bulletin de Thérapeutique*, that he injected 2½ centigrammes (gr.  $\frac{1}{8}$ ) of the chlorhydrate of pilocarpine in a case of very obstinate hiccough. The patient was a man 65 years of age, who had suffered for several years from symptoms of cerebral thrombosis, vertigo, dazzling, temporary hemiplegia, vomiting followed by persistent hiccough. A quarter of an hour after

the injection, the hiccough had disappeared and did not again return. The patient was covered with sweat and was salivated.

**TREATMENT OF DALTONISM BY FUCHSINE.**—M. Delbent has found that when a person afflicted with color-blindness looks through a solution of fuchsine, his infirmity disappears. M. Javal has turned this discovery to advantage by interposing a thin layer of gelatine colored with fuchsine between two glasses. It is claimed that the daltonic infirmity is corrected by the use of these glasses.—*La France Médicale*, June 1st.

**TREATMENT OF NEUROSES OF THE HEAD.**—According to Troussier, the treatment of asthma by cauterization of the posterior wall of the pharynx with liquor ammonii caustic., was first brought into use by Ducros, and accidentally became widely known from the fact that the sister of Louis Philippe was benefited by it. Troussier asserted that the cauterizations have a good effect. Recently, Bitot has employed them in the treatment of other neuroses of the head, and invariably with good effect. He does not, however, confine himself to ammonia, but uses different caustics. He ascribes their good effects to the change they produce in the mucous membrane of the pharynx, and the transmission of the action through the ganglion cervicale supremum to the affected nerve-territory.—*Deutsche med. Wochenschr.*, June 1st.

**PREMATURE DEVELOPMENT OF THE BREASTS IN A RACHITIC CHILD.**—Dr. Cesarano reports the case of a girl, at present seven years of age, who from the time she was seven months old, had regularly, every four months, a sanguineous discharge from the genitals, which lasted from two to three days. The mother of the child was healthy; the father had been rachitic in his youth. The discharge from the genitals was always accompanied by pains in the hip and the sacrum. The development of the child was normal until she was two years of age, at which time she suddenly ceased to walk, and seemed to dread movement of any kind; at the same time the epiphyses of the knees and ankles became swollen, and the breasts began to develop. The status præsens is as follows: the breasts are as large as those of an adult; the body is two feet eight and a half inches high; the vertebral column is curved to the left; all the epiphyses of the body are swollen, and the diaphyses are curved and twisted in various directions; the state of the general nutrition is very bad, there being no adipose tissue anywhere except on the breast and the labia majora; the genitals are covered with hair; the mental powers are undeveloped.—*Medic.-Chirurg. Rundschau*, May.

**TREATMENT OF DIABETES MELLITUS BY SALICYLATE OF SODA.**—Dr. Gerling, of Elmsborn, reports two cases of diabetes that were treated by salicylate of soda (gr. xxx.-xlv. pro die). The quantity of sugar excreted diminished very markedly, but the patients suffered from vertigo and paralysis of accommodation. The latter was cured by instillations of eserine.

Dr. v. Brinken also reports a recent case of diabetes mellitus that was cured by salicylate of soda. The patient, a man 56 years of age, took from two to two and a quarter drachms of the drug daily. The same drug proved effective in the case of a girl aged 14½ years.—*Med. Chir. Rundschau*, May.

**CAUSES OF PUERPERAL POISONING.**—At a meeting of the *Société Médicale des Hôpitaux* M. Herveux read a paper on this affection, in the management of which

he claims to have had excellent success. He concluded his paper by emphasizing the following points: 1. Give the women all the air and space possible. 2. Spare the women all examinations not absolutely necessary, especially night visits. 3. Isolate the sick from the healthy lying-in women, and also the very sick from those less seriously attacked. 4. Avoid all autopsies. 5. Continued occupation of wards, provided sufficient space is given, is preferable to alternation. 6. Special nurses should be had for those who are very sick. 7. Restrict the number of admissions, and even break up the service if an epidemic is threatened.—*La France Médicale*, April 17, 1878.

**POISONING BY BROMIDE OF POTASSIUM.**—The physiological and therapeutical action of bromide of potassium is still far from being perfectly known. In this connection the three cases reported by M. Lübben (*Journal de Médecine de Bruxelles*) are of interest. There was in each case, without any initial acne, eruption, a feeling of fatigue, of vertigo, an inability to maintain the erect position, or to walk. The patients complained of heat in the head; they were cold without fall of temperature; they suffered at first from salivation and fetid breath, then, a few days later, from dryness of the mouth and lips. These symptoms, which disappear in eight to fifteen days, resemble those observed by Clouston and Prioris, and also by M. Laborde. M. Lübben has not observed the phenomena described by MM. Verneuil and Vulpian—incontinence of urine and faeces, anaesthesia of the soft palate; nor those described by other authors—anxiety and insomnia, chronic gastritis, ecchyma, furuncles and abscesses.—*Gazette Médicale de Paris*, May 11, 1878.

**PNEUMOTHORAX IN A NEW-BORN CHILD.**—At the autopsy of a child that had been delivered in a footling presentation, had been born asphyxiated, was resuscitated, but died shortly afterwards with the symptoms of a rapidly developing cyanosis, pneumothorax and hæmothorax of the left side were found. The left lung was collapsed, and presented at its base a laceration of the pleura one and one-fourth inch in length. The heart was displaced to the right. One renal capsule was enlarged, and presented parenchymatous extravasations of blood. The portio sternalis of the left sterno-cleido-mastoid muscle and the lower part of the pectoralis major of the same side were swollen, and presented bluish discolorations. The explanation advanced for the pneumo- and hæmothorax is that, in consequence of the premature respiration and aspiration of mucus and vernix caseosa, the entrance of air into the left lung was impeded, and that the subsequent forcible respiratory movements led to alveolar and interstitial emphysema with consecutive rupture of the pleura and escape of blood and air into the pleural cavity.—*Deutsche Med. Wochenschr.*, No. 24.

**LOCAL TREATMENT OF ARTICULAR RHEUMATISM AND GOUT.**—In view of the unfavorable action of the salicylate of soda on the brain, lungs, and heart, Prof. Guérin draws attention to two old abortive remedies, which he has often employed with satisfaction in acute rheumatism and gout. One is tartar emetic, rubbed up with two parts of fat. This is to be applied to the painful joints in rheumatism, twice daily; he asserts that the pains disappear after three or four applications. The other is the flying blister, which he employs in gout when there is redness, swelling, heat, and pain about the joint.—*Centralblatt für Chir.*, No. 25.



## Original Lectures.

## DISEASES OF THE ALIMENTARY CANAL.

LECTURE DELIVERED

By AUSTIN FLINT, M.D.,

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(Reported for THE MEDICAL RECORD.)

SPORADIC DYSENTERY—INDICATIONS IN TREATMENT—  
TREATMENT WITH IPECAC—IMPORTANT PRINCIPLES  
AFFECTING THE DIET OF THE PATIENT AND THE USE  
OF OPIUM—EPIDEMIC DYSENTERY—VALUE OF OPIUM  
AND ALCOHOL IN ITS TREATMENT, AND THE DEGREE  
OF TOLERANCE SOMETIMES SEEN IN THEIR USE—  
CHRONIC DYSENTERY—SUBACUTE ENTERITIS—CHRONIC  
ENTERITIS—SUBACUTE GASTRITIS.

GENTLEMEN:—The first question we shall consider to-day is the treatment of acute dysentery. It is very desirable, in making observations with reference to the effect of remedies in the treatment of any disease, to determine if there be any intrinsic tendency in that disease towards recovery. This knowledge can never be obtained by observing cases which are under potential medicinal treatment. Some years ago it occurred to me that, to my knowledge at least, this observation had not been made with reference to acute dysentery. I therefore resolved to collect, as far as possible, cases in which no treatment of any activity had been resorted to, and to study them analytically. I found this to be a somewhat difficult task, for many patients had acute dysentery associated with other diseases, and many cases had received treatment before entering the hospital. I succeeded, however, in collecting *ten* cases in which the disease was allowed to pursue its course without interference. A report upon these observations was published in the *Am. Journal of Med. Sciences* for July, 1875, and the result of the analysis of those cases was as follows:

In no case did the disease prove fatal. The duration of the disease, from the time the diarrhœa began up to the date of convalescence, varied from 6 to 21 days—the shortest 6, the longest 21. In one case diarrhœa existed 14 days before the dysentery occurred.

If we exclude the last case, it is found that the average duration of the disease was  $10\frac{1}{2}$  days, or, with the last case,  $11\frac{1}{2}$  days. It has seemed to me that these cases, although the number is not large, establish the fact that acute dysentery is a self-limited disease. I do not think that very much would be gained by repeating these observations and collecting a larger number of cases. Here, then, we have a disease which has a natural tendency to self-limitation, and, in that respect, it corresponds with the essential fevers. But it does not follow, because we have a disease which, if left to itself, will either prove fatal or cease at a certain time, that we are not to employ treatment, for by treatment we may abridge the duration of the disease, mitigate the suffering of the patient, and conduct the case more happily and more pleasantly to a favorable termination.

In the first place, then, we will consider the indications in the treatment of a case of sporadic acute dysentery. What are the objects to be kept in view? The first indication is to effect a complete evacuation of

the alimentary canal, provided that has not already been accomplished by a spontaneous prodromic diarrhœa. You can ascertain whether or not the intestinal canal has been completely evacuated by inquiry concerning the quantity and character of the dejections, and by manual exploration of the abdomen. We can explore the colon externally very satisfactorily, throughout the greater part of its extent, and in that manner ascertain whether it is full or empty. You are to be guided, then, with reference to the first indication, by the character and the number of evacuations and the quantity of matter evacuated, and by the results of manual examination of the colon.

If we have reason to conclude that feces are retained in the large intestine, it is a rational procedure to first take steps to secure a complete evacuation of such an accumulation. This may be done by the use of various remedies. Castor-oil is a remedy which has long been employed, and is one well suited to meet the indication in these cases. Salines have been used for the same purpose, and perhaps are to be preferred, because they are far more easily taken, and afford more relief. Having fulfilled the first indication, what is the next? Upon the general principle that an inflamed organ should be kept at rest, the next indication is to keep the inflamed intestine perfectly quiet. How is this to be done? It is best accomplished by the use of opium. These are the two objects to be attained in the treatment of sporadic dysentery.

There is another principle of treatment applicable to certain cases of sporadic dysentery, but still more so to those cases embraced under the epidemic form of the disease: and that is, to render the system tolerant of the local affection. In all diseases which involve more or less constitutional disturbance and tend towards a fatal result by exhaustion, if we place the patient under the influence of an anodyne, assuming that the effect of the anodyne is good, that it does not produce nausea or disturbance of the digestive system by idiosyncrasy, we render the patient better able to support the affection; there is less constitutional disturbance than would be the case if the drug were not employed. By rendering the patient free from uneasiness and promoting sleep, we diminish the tendency to fatal result, if there be any such tendency by way of exhaustion. Opium, in the treatment of dysentery, may be administered by the mouth, by the rectum, or hypodermically. Perhaps we succeed better in securing quietude of the large intestine by the use of anodyne enemas than by the use of opium, either by the mouth or hypodermically—the effect upon the large intestine seems to be more direct. After a day or two it may be found that the alimentary canal is again more or less loaded, and, if deemed necessary, the salines or the oil can be repeated. From time to time various methods have been recommended as extremely efficacious in the treatment of this disease. Accordingly, large and small doses of calomel have been used; salines, various kinds of injections, applications of cold and heat, etc., etc., have been suggested; but the more recent plan of treatment is that recommended by Dr. McLean, and consists in the use of *ipecac*.

I have been led to employ this plan of treatment in a certain number of cases. It is recommended by Dr. McLean to administer twenty-five or thirty grains of powdered ipecac—preceding it for a little time by a full dose of laudanum. If the ipecac be retained, it is to be repeated in diminished doses every eight or ten hours.

I have seen this plan of treatment employed in quite a number of cases, and I must say that it sometimes

has a very marked effect upon the disease. At the same time, I should say that, according to my experience, without giving accurate data, in the larger proportion of cases the specific treatment fails. There is no objection, however, to making a trial of the remedy, because it will do no harm if it do not succeed.

The diet for this class of patients should be restricted, theoretically at least, to those articles of food which are as completely digested as possible. This is done upon the principle of keeping an inflamed part at rest. Our object is to prevent, as far as possible, the exercise of any function by the large intestine; that is, we administer nourishment which leaves but little residuum to pass into this portion of the alimentary canal. Cold water and ice applied to the rectum sometimes relieves the tenesmus. Warm, soothing applications over the abdomen usually afford a certain measure of relief.

In 1874 I received a letter in which is given an account of the personal experience of a gentleman with reference to a rather novel way of treating dysentery. He was encamped in the army four miles from Washington. He had suffered severely from pain and tenesmus, as well as frequent mucous and bloody discharges from the bowels, for forty-eight hours, and was greatly exhausted. He was unable to retain much food upon his stomach, and because of his irritable stomach had abstained from food for nearly eighteen hours. About that time an old negro came into camp, peddling oysters, and they were prepared and eaten with vinegar and salt. He says he felt a craving for this article of diet with its accompaniments, and that he ate freely of the oysters, and having heard an old physician say that vinegar and salt was an excellent remedy for dysentery, he gave them plenty of that kind of dressing. He writes that he was almost at once perfectly relieved, and that that was the last of his dysentery for that year. He also writes that he had frequent opportunities to recommend the same plan of treatment in his own and other regiments, and that it had uniformly been attended with the same success.

There is no reason for discrediting the story which the gentleman relates, and certainly, from the writer's standpoint, the plan of treatment is somewhat novel. It is not probable, however, that the oysters produced any special benefit; nor is it any more probable that the vinegar and the salt taken with the oysters produced any special remedial effect. But there is involved in the case a principle, which is perhaps worth mentioning. If we can find an article of diet which the patient desires and craves, and it can be taken and digested and assimilated, we benefit the patient by allowing him to have it, and also exert a controlling influence over the disease. This is the point which I wish to impress upon you. We are to be guided, to a certain extent, by the instincts and desires of the patient, and I am willing to say that, in almost every disease, if the patient has a well-defined desire for any article of food, it is wise to allow it to be taken. We are much safer in following the instincts of the patient, in this respect, than in following out any set of dietetic rules with theoretical form. I cannot but think, that adopting the same general dietetic rules and endeavoring to apply them to every case, is harmful.

#### TREATMENT OF EPIDEMIC DYSENTERY.

Next, with regard to treatment of the severer cases of dysentery which are usually epidemic, especially that form in which we have a history of early and abundant sanguinolent transudation, accompanied by marked prostration. In severe cases of epidemic

dysentery, we have to deal with a very formidable disease. What are the indications in its treatment? In general, purgatives are to be avoided. Salines, which operate by producing a more or less abundant watery transudation, are contraindicated.

So far as medical treatment is concerned, our chief reliance must be placed upon opium. Administer opium early and persistently, and to the extent of absolutely quieting the intestines, but at the same time avoiding the risk of narcotism. It is a noteworthy fact that the quantity of opium which can be administered in these cases, without exposing the patient to danger from overuse of the drug, is sometimes very large.

We are to take into account the fact that, in certain cases at least, there is a wonderfully increased tolerance of opium. For example, I have given a patient, suffering from epidemic dysentery, a grain of the sulphate of morphia every hour—24 grs. per diem—and continued such doses for several days without producing the least manifestation of narcotism; and the patient was a person not accustomed to taking opium. That was an extraordinary case, it is true, but I have been repeatedly led to observe a greatly increased tolerance of opium in this class of cases.

Astringents may be administered, provided they are well tolerated by the stomach, with a certain amount of benefit—not marked, however—but they should never displace the use of opium.

Supporting measures must also be employed, and with regard to alcoholics, the same is true as with reference to opium—there is an increased tolerance. We cannot go too far, in severe cases of epidemic dysentery, in the use of alcohol, if we do not carry it beyond its supporting effect, and the life of the patient may depend upon its use. The persistent use of opium and alcoholics is the most essential feature of the treatment of epidemic dysentery. If the disease be associated with other affections, additional indications may be derived from the latter. For example, if the disease be associated with malaria, the use of quinine is indicated, and other indications may be developed by complications with other diseases.

#### CHRONIC DYSENTERY.

Our next subject is chronic dysentery. In our climate we rarely see a case of this disease. It is essentially a disease of the tropical climates. With regard to sporadic and epidemic dysentery, as it occurs in this climate, there is scarcely any tendency to the supervention of the chronic form of the disease, whereas in tropical climates there is considerable tendency to this result.

The distinguishing feature of the dejections in chronic dysentery is the presence of inflammatory products, and our differential diagnosis is based upon that fact. If the dejections are liquid and contain more or less of inflammatory products, we can infer that the affection is extensive; that it affects a greater part or the entire large intestine. If the patient has regular faecal evacuations, and between them discharges of inflammatory products, it may be inferred that the disease is located in the lower part of the bowel. With the characteristic dejections there is generally more or less of progressive emaciation. If the disease is extensive, extreme emaciation is commonly developed.

It is important to make a correct diagnosis in these cases, but in hospitals it is not always made with accuracy, nor is it always easy to make a discrimination between chronic dysentery and chronic diar-



rhœa, the disease with which chronic dysentery is most frequently confounded. Chronic diarrhœa is a much less grave affection than chronic dysentery.

What are the indications for *treatment in chronic dysentery*? There are several remedies which have been supposed to produce a beneficial effect through their local influence upon the inflamed part. We have the nitrate of silver, sulphate of copper, and bismuth in large doses, which are supposed to exert a favorable influence by coming in direct contact with the inflamed mucous membrane. With regard to nitrate of silver and sulphate of copper it seems to me that it is simply an error to suppose that any doses of these remedies which the stomach will tolerate can be taken and pass through the stomach and small intestine and then act as local remedies upon an ulcerated surface in the large intestine. Whatever effect these remedies produce must be explained in some other way. It is easier to understand that bismuth, given in large doses, and continued regularly, may reach the large intestine and produce some local effect.

Bismuth is a palliative remedy and one of considerable value in the treatment of chronic dysentery. Not infrequently it diminishes the frequency of the dejections and the abundance of the inflammatory products which they contain. It is a remedy which can be given almost *ad libitum*. It is a remedy which frequently is given in too small doses to produce any curative effect. We should rarely give less than  $\mathfrak{z}\text{ij}$ , and from  $\mathfrak{ss}$ . to  $\mathfrak{ij}$ . may be given without producing other disagreeable effects than the inconvenience which may arise from its bulk in the stomach. The various ferruginous and vegetable astringents may be given. They have been regarded by different observers as valuable in the treatment of this affection, and it is our duty to try them in succession.

These patients are to be sustained by tonic remedies and a nutritious diet. The diet should consist of articles which are as completely as possible digested in the stomach and small intestine, thus leaving the least possible residuum to enter the colon. You will be guided largely by the instincts and experience of the patient with regard to selecting articles of diet. More advantage may, perhaps, be derived from hygienic treatment than from any other. A change of climate is a most important element in the treatment of chronic dysentery. I am speaking particularly of cases occurring in a tropical climate. A change from a warm to a temperate or cold climate is beneficial. A uniformly cold and dry atmosphere is best suited to these cases. During the late civil war, and also during the Mexican war, we had occasion in New York to treat numerous cases of chronic dysentery contracted in the Southern States and in Mexico, and the most effectual measure for their relief was a change of climate; a change to even farther North than this city.

#### SUBACUTE ENTERITIS.

We meet with cases of enteritis which are neither acute nor chronic, but are subacute. Subacute enteritis is not uncommon. It is frequently connected with excessive eating, or with the action of an agent which interrupts the digestive process. Here we have to make a differential diagnosis between this disease and simple functional indigestion. Subacute enteritis is almost invariably induced by dietetic excesses. In accordance with general principles, then, the first thing to be done in the way of treatment is to remove the contents of the small intestine, as is done in the greater proportion of cases by diarrhœa. The alimentary canal

is then to be kept quiet by the moderate use of opium, and the diet of the patient carefully regulated.

#### CHRONIC ENTERITIS.

Chronic enteritis rarely occurs in adults if we exclude the enteritis which is associated with tubercular disease—that form of chronic enteritis which occurs in connection with certain cases of phthisis.

If a patient suffering from pulmonary phthisis has a persistent diarrhœa, one perhaps which can be controlled by opium, but which speedily returns as soon as the effect of the opium passes away, and this continues for some time, we may safely infer the existence of tubercular enteritis, which will sooner or later lead to ulceration. Exclusive of these cases, and exclusive of the ulcerations which sometimes persist after recovery from typhoid fever, chronic gastritis is a rare disease in adults, but common in children. In young children, and during dentition, especially in cities, the cases of chronic enteritis, acute and subacute enteritis are very numerous, and constitute the greater part of the cases known commonly as "summer complaint" and cholera infantum. As these affections more properly belong among diseases of children they will not be studied at this time.

#### SUBACUTE GASTRITIS.

With regard to subacute gastritis it is a very common affection, and one which exists in a large proportion of the cases which occur so frequently, and to which in this country the name "bilious attack" has been applied. "Gastric embarrassment" is also a name which has been given to the same condition. The term "gastric fever," a term which should never be used, but one which has received a popular recognition, has been employed by some physicians, and even by some medical writers in describing this disease. The symptoms which characterize a transient and subacute gastritis are loss of appetite, nausea, sometimes vomiting of a considerable amount of mucus, and perhaps bile, more or less of tenderness over the epigastrium, and a certain amount of fever; the thermometer rising as high perhaps as 100 or 101° F., and the pulse increased in frequency. This group of symptoms can frequently be referred to over-indulgence at the table, or to the effect of some agency, mental or physical, which, after the ingestion of food, has given rise to indigestion. The food undergoes chemical change in the stomach, and produces a certain amount of inflammation. This form of gastritis is not severe, and does not, as a rule, call for very active treatment.

It may be proper, if there is suspicion that the stomach contains indigested food, to produce vomiting.

COLORADO AS A HEALTH RESORT.—Dr. Edwin Bloklislee, of Golden, Colorado, in a paper with above title, read before the Iowa Union Medical Society, Cedar Rapids, Iowa, lays great stress upon the necessity of slow and gradual journeys to Colorado, whereby the patient can become accustomed to the changes in the atmosphere in his ascent to the Rocky Mountains. He maintains that every hundred miles towards the Rocky Mountains represents an ascent of a thousand feet, and should be travelled slowly. In regard to fulfilling the latter condition, the wagon trains were better than the rapid travel in the rail-car. He prefers Golden to any other situation in Colorado, and advises patients to be sent there in the first stages of the disease.

## Original Communications.

### LIGATION OF THE LINGUAL ARTERY NEAR ITS ORIGIN, AS A PRELIMINARY PROCEDURE IN THE EXTIRPATION OF CANCEROUS DISEASE OF THE TONGUE.

By GEORGE F. SHRADY, M.D.,

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THE following case, the substance of which was presented to the New York Pathological Society on the occasion of the exhibition of an epithelioma of the tongue, has probably some points of interest for the surgeon in connection with ligation of the lingual artery near its origin, as a preliminary procedure in the operation for extirpation of the disease.

Marian McD., *et al.*, thirty-two years, native of England, married, and the mother of four children, was admitted to the Presbyterian Hospital, New York, June 12, 1878, having been sent to me by Dr. D. S. Lyons, of this city. Eight months previously she first noticed an ulceration on the left side of the tongue, about its middle, and adjoining a decayed tooth. The disease gradually extended anteriorly and posteriorly, so that, in the course of the two months following, nearly the whole of that edge of the organ became involved. Soon after, the floor of the mouth was invaded, and, coincident with that complication and the necessary implication of the chorda tympani nerve, the patient, as usual, suffered from neuralgia of the side of the face and ear.

At the time of admission to the hospital the disease extended in the shape of a ragged, angry, indurated and sloughy ulceration from near the tip of the tongue, along its left side, to the depth of half an inch or more, and backward to the reflection of the anterior faucial pillar. The entire inner surface of the gum of the left side was also covered by a fungous, sloughy growth, which overlapped the alveolar margin and extended across the floor of the mouth, being continuous with the disease in the tongue. The mass in the floor of the mouth was limited anteriorly by the frenum, and posteriorly by the posterior limits of the disease in the tongue. Whether or no the disease extended deeper than the submucous tissue could not then be ascertained without causing her a great deal of pain in the necessary manipulation. Certain it was, however, that none of the neighboring glands were involved.

It should be stated, as a part of the history of this case, that the patient had a congenital cleft palate, and also that her aunt, on the paternal side, died of cancer of the breast. There was nothing in the history or the appearances of the disease that indicated syphilis.

The patient was in a very feeble condition, and, aside from a lack of nourishment, was much worn down by the severe neuralgia from which she had suffered for several months. Anxious to be relieved of her suffering, she was willing to submit to any operation which would not directly jeopardize her life. Extirpation of the disease was of course the only measure that suggested itself. The character of such an operation and its probable results were plainly set before her; still she requested that the disease be removed, if with no better promise than a temporary relief from her sufferings. A consultation was held, and an operation was advised.

Desiring to get her in as suitable a condition for operation as possible, she was liberally fed by the rectum and encouraged to take milk and beef-tea by the mouth. The difficulty and pain in swallowing interfered greatly with stomach alimentation, so that the lower bowel was relied on almost entirely, not only for feeding, but for tonic medication.

Having determined to remove the disease entirely through the mouth and at the same time prevent a hemorrhage, which in her condition might have been dangerous, I decided, as a preliminary operation, to ligate the lingual artery of that side. With the view of cutting off not only the blood-supply to the body of the tongue, but also to its base, the lingual artery was ligated near its origin and behind that of the dorsalis linguae. The patient having been thoroughly anesthetized, an incision was made upon the left side of the throat, just above and parallel to the greater cornua of the hyoid bone. This incision was about three inches long, its centre corresponding to the extremity of the greater cornua, and its posterior border to the internal margin of the external jugular. The skin, superficial fascia, platysma, and deep fascia were in turn divided, the submaxillary gland exposed and raised from its bed, when the posterior belly of the digastric muscle was brought plainly into view. In the course of the dissection the facial and internal jugular veins, the external carotid artery, the superior laryngeal nerve, and the middle constrictor muscle of the pharynx were exposed, as were also the hypoglossal nerve and the other landmarks. Only one vessel of importance was thus far encountered which required attention, and that was a branch of the anterior jugular vein, which traversed the wound and was divided between a double ligature. After a cautious search behind the posterior belly of the digastric muscle and immediately above the extremity of the greater cornua of the hyoid bone, the lingual artery was found and there ligated. The exact point of ligation was just as the artery passed under the posterior edge of the hyoglossus muscle. This portion of the operation occupied less than twenty minutes. The pulsations of the artery were distinctly recognized, before the ligature was tied, by all the gentlemen surrounding the operating-table, notably by Drs. Post, Briddon, White, Hinton, Burrall, Hadden, and the members of the house staff.

After the artery was secured by a carbolized silk ligature, a unilateral gag was inserted between the jaws on the right side. The finger was then introduced into the mouth, and an attempt was made to separate the growth from the inner and left side of the lower jaw. This so far succeeded that but little assistance from the scissors was required. When the tumor on the floor of the mouth was separated as far inward as the median line, it was left attached to the tongue. The next step in the operation was the securing of the extremity of the tongue by three strong ligatures, about an inch from each other, the central ligature being through the tip, just to the right of the median line. By the assistance of Drs. Post and Briddon, the tongue was then spread out so that it could be slit with a serrated scissors longitudinally to its base. The base in its turn was then cut across behind the disease, and the entire growth upon the tongue and floor of the mouth removed in one mass. A thorough examination was then made of the mouth, and a small suspicious induration was cut off with the scissors from the stump of the extirpated portion. It was then decided that all the disease was thoroughly removed. As far as the section of the left side of the tongue was concerned, the operation was



virtually a bloodless one, the tissue presenting a comparatively dry and pale appearance. At one place, where the incision extended to the right of the median line, a branch of the ranine artery of that side was cut, requiring a ligature. There was some hemorrhage from the floor of the mouth, particularly in the neighborhood of the frenum, but it was promptly checked by pieces of ice held in the claws of the vulsellum and applied to the cut surfaces.

The edges of the wound in the throat were then brought together by sutures, the ligature of the lingual having been cut short and left to disappear.

The patient rallied well after the operation, and expressed her satisfaction as well as she was able to do, considering the crippled condition of her tongue and the congenital defect of her palate.

The growth was examined microscopically by Dr. Satterthwaite and myself, and was found to present the characteristic appearances of epithelioma.

In the course of the day following the operation patient became easy, and at the end of the third day could swallow water or milk in large mouthfuls without special discomfort. The wound presented a healthy appearance, and in the course of ten days was entirely healed.

Two weeks subsequent to the operation, and during an exceedingly warm night, she imprudently exposed herself to a draft of air, which resulted in a pneumonia of upper lobe of left lung, which disease was accompanied with the symptoms and physical signs of acute phthisis, and terminated fatally in three weeks. Being absent from town during the latter part of July, Dr. Briddon, who was on duty at the time, kindly treated the case to its close. No autopsy was procurable.

As before intimated, the real interest of this case centres in the ligation of the lingual artery. This operation has the reputation of being an exceedingly difficult and dangerous one. The place of election is in the triangle of the digastric muscle, there being in that space no more important artery to encounter than the lingual itself. Outside and behind this triangle the application of a ligature to the lingual is considered too hazardous to be undertaken, on account of the proximity of large veins and arteries, and too difficult on account of the great depth of the vessel in the wound. Although the operation cannot be called a simple one in either situation, it is by no means so difficult as has been claimed. I make this statement with the view of preparing the way not only for the advocacy of the ligation in the ordinary situation, but near the origin of the lingual, behind the triangle, and on virtually forbidden ground. The latter operation, as was performed in this case, should always be preferred, because it cuts off the entire blood-supply of that side of the tongue. On the contrary, a ligature within the triangle is almost invariably in front of the dorsalis lingue, which artery, in sections of the base of the organ, may give rise to troublesome and sometimes almost uncontrollable hemorrhage. As arrest of hemorrhage from the base of the tongue is as much, if not more, of an object than that from its body, the choice of the two situations for ligation admits of no argument aside from the dangerous proximity to great vessels. But even this should not deter the surgeon who is confident of his landmarks, and who wishes to give his patient the best guarantee against loss of blood during the extirpation of the tongue through the mouth. The extremity of the greater cornua of the hyoid bone is a sure guide for the incision. The latter should be made parallel and just above the bone. Of course the dissection must be carefully made, the proximity

of the external jugular to the superficial, and the internal jugular and external carotid to the deeper incisions kept constantly in mind while the extremity of the cornua is pressed upward in the wound. Following these precautions, the artery can scarcely be missed, lying below the submaxillary gland, behind the deep fascia, in the loose cellular tissue just above the cornua, and upon the external aspect of the middle constrictor muscle of the pharynx. At this point the ligature is sufficiently distant from the external carotid on the one hand, and the dorsalis lingue on the other, to prevent secondary hemorrhage.

Ligation of the lingual is more especially useful when a portion or the whole of the tongue is removed through the mouth. The latter is an operation which, when it can be performed, should be preferred to all others. When the artery is secured, the great objection to this method of extirpation—hemorrhage in an inaccessible and dark cavity—is entirely removed. There is no comparison between the ease of tying the artery from the outside, under the jaw, and deep inside the mouth and during a free hemorrhage.

Another argument in favor of the ligation of the lingual in these cases is based upon the practice of M. Demarquay, who attempted by that means alone to starve out cancer of the tongue. Is it not possible that the cutting off of the blood-supply hinders the return of the disease after the extirpation? This could not be demonstrated in my case, but the probability of its good influences in the direction indicated helped to strengthen the general belief in its utility.

It is well known that various operations have been proposed and performed for extirpation of a whole or part of the organ, but not one is as simple as the removal through the mouth by knife and scissors, after the lingual has been tied as described. It is of course understood, as each lingual supplies the corresponding side of the tongue, that any spread of the disease beyond the median line would involve the necessity of tying both of these arteries to avoid the hemorrhage. Where it is impossible to remove disease by such means from the floor of the mouth or from the root of the tongue, Syme's operation of dividing the lower jaw, as modified by Sedillot, offers the best chances. In case the disease is confined to one side of the tongue, and extends too far back to be reached through the mouth, the section of the cheek, as proposed by Mr. Collis, would, I believe, be less objectionable than the division of the jaw. A scar would be left, but in the male, at least, it could be easily hidden by the whiskers. Regnoli's submental flap has no advantage over Syme's section; indeed it would appear to be useless in the very cases for which it was originally intended, inasmuch as in extensive disease of the tongue, removal through the opening would be difficult if not impossible. Nunneley's operation of introducing a loop of the wire écraseur under the chin and through the mouth, encircling the disease, has its advantages in certain cases, as also Paget's method of dividing the anterior attachment of the genio-hyoglossus; but when these can be avoided—and preference should be given to simpler procedures—it should be done. The galvano-cautery has many advocates, as also the Paquelin cautery, but neither of these leave a clean wound in the tongue nor can they positively guarantee against hemorrhage. In fact, by some authorities, secondary hemorrhage is said to occur more frequently when the galvano-cautery is used than even when the knife or scissors is employed. Surrounding the cancerous mass by a ligature is an operation quite easy to perform, but is attended with great discomfort to the patient afterwards. The same objection applies

to Syme's operation, except in the cases mentioned, when the imperativeness of its performance outweighs all other considerations. In conclusion, as a result of an analysis of the discussion which the presentation of this case has invited, the following propositions may be submitted:

1. In cancer of the tongue, whenever it is possible, the disease should be removed through the mouth.

2. Ligation of the lingual artery is a very necessary preliminary to such a procedure.

3. Ligation of the lingual artery, if performed at all, should be near the origin of the vessel, as by that means the whole of the blood-supply of one side of the tongue is completely cut off.

4. The operation of ligation of the lingual artery, even in that situation, is less difficult than the securing of the vessel in the wound during the operation of extirpation of the tongue, and when there is free hemorrhage deep in the mouth.

5. The distance between the external carotid and the point of ligation is sufficient for the foundation of a firm clot and the prevention of secondary hemorrhage.

6. The use of the scissors and the knife place the wound in a condition more favorable for rapid healing than when the *créateur* or any variety of cautery is used.

7. Ligation of the lingual may have a tendency to retard the return of the disease.

38 EAST THIRTY SECOND STREET, N. Y.

## A CONTRIBUTION TO THE THERAPEUTICS OF PUERPERAL CONVULSIONS.

REPORTS OF CASES, WITH COMMENTS,

By E. P. HURD, M.D.,

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THE metropolitan practitioner has literary, scientific, and professional advantages which his country confrère does not possess; the field of observation and the opportunities of the latter are limited, and hence it is that the great leaders and reformers in medicine have generally belonged to the large cities; they have been men whose time and energies have been largely devoted to hospital and dispensary practice, to whom the chemical laboratory, the autopsy, the dissecting-room have always had marked attractions. Improving their leisure hours in perfecting their knowledge of the human frame and its diseases, they have in due time developed into fit instructors of their less ambitious country brethren, who are too often content to spend their precious leisure at euchre, at croquet, or in the genteel occupation of loafing in the village grocery.

What the busy practitioner most needs is the results of experience, and as far as the life of the country physician is fruitful in practical data, so far he can always command the respectful attention of his metropolitan brother. In the practice of medicine we are ever experiencing the great evolutionary fact of our being—"trial and error, groping and feeling our way, acting somehow, and judging of the result."\*

The treatment of puerperal convulsions has taxed the resources of all practitioners, and failure has been quite as conspicuous as success. The old methods of treatment by bleeding, calomel and opium, drastics, etc., are going out of fashion; anæsthesia by chloroform and ether has been proved, above all other reme-

dies, to lessen the mortality in this dire disease. As a contribution to this conclusion (which I regard as one of the most valuable acquisitions of modern therapeutics) the following reports may be deemed to possess some value.

Preliminary to beginning my reports, I wish to recall a statement of Dr. F. W. Gilbert, of Canada, made in 1868, at a medical meeting in Sherbrooke, P. Q.; a statement which made a considerable impression on those who heard it, and especially on me, who had recently lost a patient from puerperal convulsions, in the treatment of which no anæsthetic was used. Dr. Gilbert said that whereas, previous to the introduction of the armamentarium of the physician of ether and chloroform, he used to lose a large proportion of his cases of puerperal convulsions, since he had learned to rely on anæsthetics he had not lost any, although he had had upwards of twenty cases. His method was to use chloroform promptly, boldly, and perseveringly.

CASE I.—In 1867, during country practice in D. Patient a primipara, age twenty-four, albuminuric. I arrived while labor was in progress; there had been two or three severe convulsions. Head presenting. I applied long forceps—a dead child. In an hour consciousness had returned, and patient was able to converse. Three hours after delivery another convulsion. Treatment: bleeding, croton oil and calomel purge, enemata, veratrum, and opium (the latter hypodermically). No ether or chloroform. Patient died.

CASE II.—In 1868, during my residence in Canada. Patient a primipara, aged eighteen, albuminuric. Had been in labor all day; convulsions every half hour for twelve hours. Os dilated; child delivered by turning. Chloroform was freely administered, and no other medical agent used that I now remember. Patient recovered.

In this case there was no return of consciousness till forty-eight hours after the convulsions had ceased, and patient was in a *new world* for weeks afterwards, having to re-learn almost everything.

CASE III.—In 1871. Mrs. R., a resident of Byfield, primipara, albuminuric. Convulsions supervened after delivery of a living child—the most frightful convulsions I ever witnessed; it was with difficulty patient could be retained in bed. Chloroform was administered by inhalation, and chloral (in 10-grain doses) by mouth. The former boldly; in fact, I did not allow my patient to come out from under its influence. When I saw warning of an approaching paroxysm, half an ounce of the anæsthetic was immediately applied on a towel, folded into a hollow cone, to the mouth and nostrils; a thorough narcotism was speedily induced, which soon arrested the convulsive seizure. The towel was at no time completely removed from the mouth of the patient; during the intervals of the attacks the napkin containing a few minims of chloroform was kept a few inches from her mouth. The aim was to annihilate spinal reflex excitability: pulse and respiration being carefully watched. This mode of treatment was pursued for six hours, and for three hours after all convulsive action had ceased. Profuse sweats occurred, which may have aided in eliminating the *materies morbi*. Patient fully recovered. In 1875 was delivered of a second child, without convulsions.

CASE IV.—In 1875. Mrs. W., primipara, albuminuric, with excessive œdema. Labor was progressing finely, with dilatable os, when a violent convulsion came on. I applied ether, and sent home for forceps. The ether promptly allayed spinal excitement; I kept the sponge, saturated with the anæsthetic, near the mouth of the patient for six hours. Delivered her by

\* Bain, Mind and Body. S. 79.



forceps of a living child within an hour of the invasion of the convulsive paroxysm. There was no return of convulsions. Perfect anæsthesia was not maintained during all of the long period specified; it was only when warning was given by restlessness and facial spasm of an impending general outbreak that the ether was pushed to its fullest physiological effect; a fair degree of anæsthesia was, however, kept up during the whole period. And here I believe is the secret of the success of the anæsthetic treatment; no timidity must be shown; your ether or your chloroform must be used unsparingly and perseveringly; the crethism of the spine and bulb must be annihilated, or it will annihilate your patient. No other treatment was used in this case. Mrs. W. is still living.

CASE V.—Mrs. I., of Newbury. Was taken in October, 1876, when six months pregnant, with a convulsive seizure; predisposing cause, albuminuria; exciting cause, exposure to cold and wet. Ether was freely administered by inhalation, and chloral given internally. The eclampsia was promptly arrested; premature labor came on, with delivery of a dead child. She made a good recovery.

CASE VI.—Mrs. K., of Byfield. Primipara, albuminuric (as I should judge by the œdema of extremities which was present). Previous habits laborious, farm duties, in consequence of husband's sickness, requiring her constant supervision; often to market, nine miles, in hot sun. Was taken August 23d ult., when seven and one-half months pregnant, with violent headache and eclampsia. The first convulsion was followed by a coma, from which she was never aroused. Dr. R. C. Huse, of Georgetown, was in attendance from eleven o'clock A.M., till her death, a little after midnight. Convulsions all day, with intervals of only about fifteen minutes. No signs of labor till five o'clock P.M.; then pains came on. When I arrived, at nine o'clock P.M., Dr. Huse was preparing to turn the child and deliver. This he effected, with my assistance, in a few minutes; the child was dead. There was a respite from convulsive seizures of half an hour; then they came on with greater violence; the breathing became stertorous and apoplectic, the heart's action began to fail, and at ten o'clock it was apparent that the case was hopeless. The treatment was as follows: general bleeding, to one pint, by Dr. Huse; a calomel purge, followed by copious enemata; cold to head, and sinapisms to feet and calves; hypodermics of morphia and ether; chloral, in hourly ten-grain doses, from four P.M. to eight P.M., and also by enemata, hypodermics of chloroform\* and atropia (by myself).

No ether or chloroform was administered by inhalation in this case.

I need not say that it will always be a regret to me that anæsthesia had not been early induced, and that the entire treatment—excellent in every other respect—had not been made subordinate to a rigorous anæsthetic treatment.

The following nine cases occurred in the practice of my friend, Dr. George W. Snow, of this city, who has kindly reported them for this paper.

CASE I.—Sept. 6, 1867. Delivered Mrs. McD.—primipara—of female child. Labor commenced at about ten o'clock P.M., on the 5th inst. Convulsions came on at midnight. Had ten before I arrived. Con-

trolled the spasms with ether. Had several spasms on the third and fourth days during the milk fever. Made a good recovery.

CASE II.—Oct. 29, 1867. Delivered Mrs. B.—primipara—of female child. Labor set in, with convulsions, at midnight. Patient had had three convulsions when I arrived. Put her immediately under the influence of ether, which controlled the spasms completely. Patient made a good recovery. Had three convulsions after the child was born.

CASE III.—May 21, 1867. Delivered Mrs. M.—primipara—of male child. Labor easy and natural. Convulsions came on twenty hours after the birth of the child. Put her under the influence of ether; moved the bowels by enema, and in the afternoon applied four leeches to the temples. Made a good recovery.

CASE IV.—May 25, 1871. Delivered Mrs. —, primipara—of male child. Had three convulsions before my arrival. Put her immediately under the influence of ether, and delivered with the forceps. Mother and child made a good recovery.

CASE V.—Nov. 10, 1872. Delivered Mrs. B.—primipara—of female child, seven months advanced. Labor ushered in by convulsions, which were controlled by ether. Delivered by version. Made a good recovery.

CASE VI.—Jan. 19, 1873. Delivered Mrs. F.—primipara—of female child. Had a long, tedious labor, and while applying forceps to deliver patient she had a convulsion. Administered ether, and delivered immediately. Had second convulsion after the child was born. Made a good recovery.

CASE VII.—Aug. 20, 1873. Delivered Mrs. M.—primipara—of female child—premature. Convulsions came on about twelve hours after the birth of the child. Had the second convulsion after I arrived. Immediately applied the ether, which put a stop to the convulsions, and the patient made a good recovery.

CASE VIII.—March 10, 1874. Delivered Mrs. J.—primipara—of female child, still born. Labor came on at nine o'clock P.M., of the 9th inst., and she had her first convulsion at three o'clock A.M., of the 10th inst. Put her under the influence of ether, which controlled the spasms, and delivered by version, first dilating the os uteri with Barnes' dilators. Patient made a good recovery.

CASE IX.—March 4, 1878. Delivered Mrs. K.—primipara—of male child. Convulsions came on about twelve hours after the birth of the child. Had one spasm after I arrived. Immediately applied the ether, which controlled the convulsions completely. Mother and child made a good recovery.

From the foregoing cases it will be seen that in every instance where the anæsthetic was freely used, the patient made a good recovery. In the two fatal cases (Nos. 1 and 6 of my own), no ether or chloroform was administered.

The use of anæsthetics in puerperal convulsions now rests on a solid basis of clinical facts, and a practitioner who neglects this mode of treatment, when chloroform or ether is to be had, comes little short of criminality.

In the puerperal state we have inordinate irritability of the entire reflex cerebro-spinal system; we have an active poison in the blood keeping up that irritability; we cannot speedily deplete the blood of that poison, but we can protect the central nervous system from its influence, and we can reduce to a minimum that reflex excitability. "The evidence in favor of chloroform in puerperal convulsions,"

\* It deserves mention in this connection that neither my friend, Dr. Huse, nor myself had with us sufficient of any anæsthetic to enable us to institute anæsthesia by inhalation. Hypodermics of chloroform (one-half drachm) have proved, in my experience, most efficient anodynes, as speedily effectual, though not quite so lasting as morphia. The pain at point of insertion is inconspicuous.

says Barnes,\* "has been greatly accumulating since Simpson's time. It should be carried to the surgical degree, that is, to the extent of rendering the spinal cord irresponsive to irritation of the sphincters. The convulsive fit is rendered less violent; it is shortened. When anaesthesia is induced in anticipation of a fit, this may be almost entirely averted, and is sure to be moderated. Chloroform blots out memory, one source of emotion; it cuts off perception, another source of emotion; it lessens reflex irritability. . . . An essential condition for obtaining from chloroform the full benefit it is capable of giving, is to keep close watch over the patient, so as to be ready to administer it on the slightest warning of a fit."

"I have never," says Phillips, obstetric physician to Guy's Hospital, "witnessed any untoward symptoms from chloroform in these cases, though I have administered it continuously for several hours, and sometimes when the patient was already in a deep comatose condition between the attacks."†

Prof. Braun, of Vienna, records sixteen cases treated by chloroform; all recovered. Chaillly Honoré (1859) relates that eighteen out of nineteen cases which he treated by chloroform got well.

With regard to the comparative safety of ether and chloroform in eclampsia, there seems to be a remarkable tolerance of chloroform when administered for puerperal convulsions (the physical suffering conferring immunity, possibly like the opium tolerance of peritonitis), and as there is not a case on record of death from chloroform when used on such occasions, it may be regarded as just as safe as ether.‡

As to the use of chloral. Theoretically this agent would seem to be indicated, and in the absence of ether and chloroform, it might be beneficial, administered in pretty large doses by mouth or by enema. In No. 6 of first series of foregoing reports, it was given in sufficient doses, and failed to arrest or moderate the paroxysms. I should never resort to it, if anaesthesia by ether or chloroform were available.

Purging may sometimes be indicated, when causes of excentric irritation exist in the bowels, though it is much to be doubted whether the *premium irritamen* is ever there.

As for bleeding, I think that, with ether and chloroform at command, we can afford to consign this once vaunted remedial agent to the limbo of exploded follies.

## VERATRUM VIRIDE IN EPILEPTIC CONVULSIONS.

By EDWARD F. MORDOUGH, M.D.,

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BEING called upon to witness and treat many attacks of epileptic convulsions, and having thoroughly tried with but little, if any, success the numerous remedies and devices offered by our standard authorities, partly at the suggestion of Dr. L. P. Gray, of Brooklyn, I determined to give veratrum viride a fair trial. Having witnessed as well as read of the beneficial effects of this drug both in uremic and puerperal convulsions, as well as in the "internal" convulsions of children, I hoped that I had at last obtained an agent

which, used in a proper manner, would diminish the severity and decrease the frequency of the recurring convulsions—an end much to be desired, and one which the following cases will, I think, convince the most skeptical reader, was arrived at. Messrs. Heydenrich Bros. prepared for me the following solution, which used hypodermically was entirely satisfactory, and was followed by no unpleasant results, the small amount of morphia counteracting, in almost every instance, the nauseous and emetic effect of the drug.

B. Morphiae sulph. . . . . gr. ijss.  
Tr. veratri viride,  
Aq. dest., ad. . . . . ʒ ss.  
Misce.

CASE I.—M D., æt. 22, Oct. 17, 1877. Previous to this date it had been my misfortune to attend this man on four different occasions. He had been subject to these attacks for fifteen years, and for five or six years past the convulsions had been increasing in severity and duration, lasting, with intermissions of from five or ten minutes, for three or four hours. I had ineffectually tried to diminish their intensity and frequency by means of nitrate of amyl, chloroform and ether, the cold douche, compression of the common carotids, etc., etc., but had found it necessary in each case to remove him to the City Hospital (March, Sept. 10th, 14th, and 27th, 1877), where his convulsions continued in spite of all treatment, until after lasting a number of hours and exhausting the corps of nurses and attendants, they gradually grew less frequent and severe, and ended in the usual sleep. On this occasion he was seen about twenty minutes after the commencement of the attack, and according to the testimony of the bystanders, the convulsions had been increasing in severity and duration. While rigid and convulsed I gave him hypodermically twenty minims of the solution, representing ten minims of the U. S. P. tincture and about a tenth of a grain of morphia, and repeated the dose in twelve minutes. In about four minutes there was a marked change in the force and rapidity of the pulse, while the pupils about the same time began to dilate. The patient was kept prone, and complained of no nausea, but said the punctures were quite painful. There was no indication of a convulsion, and after watching him an hour and ten minutes, his pulse having become stronger, he was left to sleep. Learned later that no convulsion ensued, and that no abscesses were developed.

Feb. 15, 1878.—Was again called to attend M., and found him in a series of convulsions, which had not been affected by the administration of amyl in the hands of a physician, who was present when the convulsions began. Gave him twenty minims of the solution during a convulsion, and followed it with ten more minims eleven minutes later, and had the satisfaction of seeing no indication of a convulsion returning. In two hours he was allowed to walk home, and aside from slight pain due to the punctures and some little nausea on standing erect, he was none the worse for the treatment.

March 28th.—Was summoned to see M., and found him violently convulsed, the attack being the most severe ever seen by those present, well acquainted with him. He had been on a prolonged debauch, lasting three days, during which time he had eaten little or nothing, and had wound up in a police-station cell in a pitiable condition. As the convulsions were increasing in severity, at the earnest request of his friends to afford him assistance, if possible, notwithstanding his already depressed condition, I gave him eighteen

\* Braithwaite, Part 68, p. 222. English practitioners prefer chloroform, which certainly acts more speedily in these severe cases than ether, unless we except Squibb's ether, which Dr. Snow tells me acted in his cases with great promptness, and entire relaxation of the parts.

† Guy's Hosp. Rep., 1870-1871, p. 342.

‡ See this subject discussed in Proceedings of Obstetrical Society of London, Bost. Med. and Surg. Journal, Aug. 12, 1875, p. 189.



minims of the solution in the period of rest following a convulsion. In five minutes his pulse had become very much decreased in force, and had fallen from one hundred and eight to fifty-six beats a minute, and for the first time in my use emesis followed in a few moments. His pupils were dilated and skin cool and moist, and for a moment I regretted having given him a depressant in his present condition. However, as the emesis was controlled by morphia, and as his pulse became more full after the administration of a diffusible stimulant, I had no further occasion for regret. After carefully watching him for an hour, I left him in the hands of the police, and was informed later that there was no return of the convulsions, and that after sleeping for three hours he walked home, the only unpleasant result following the administration of the veratrum being some slight uneasiness at the point of puncture. I believe that the emesis present in this instance will hardly be wondered at when his condition is taken into consideration.

April 20th.—Was called to see M., and, as usual, found him surrounded by an alarmed crowd, and was told that convulsion was following convulsion at regular intervals with undiminished severity. Gave him an injection of twenty minims of the solution, following it with twelve more in nine minutes, and had the satisfaction of seeing no nausea or emesis result, and the convulsions cease. The patient was soon able to walk home, and experienced no unpleasant effects from the treatment. His being sent for six months to the county penitentiary caused me to lose sight of him.

CASE II.—J. E., *æt.* 30. Was called to attend E., and found him in a characteristic convulsion, having a history of attacks from his youth up to the present time. He had had four convulsions, and as there were no symptoms of their ceasing, I gave him sixteen minims of the solution, following it with ten more in ten minutes. No more convulsions, no nausea, and but little local pain was the result. Moved him home, and was informed later that no convulsions or abscesses followed.

CASE III.—W. M., *æt.* 20. Convulsions have been experienced at intervals of about three weeks for seven years. Usually last about an hour and a half. Called to see him about twenty minutes after attack began. Administered twenty-two minims of the solution, and there being no symptom of a return of the convulsions did not give any more. Patient was taken to St. Peter's Hospital, and discharged the following morning. No convulsion while in the hospital. Eight days later was again called to attend M., and found him violently convulsed, the attack having lasted but ten minutes. Gave him twenty minims. Result was as before—no more convulsions, although they had been increasing in severity up to the time of the injection, according to the testimony of spectators. The patient enlisting in the U. S. Navy prevented further observation.

CASE IV.—K. C., *æt.* 45. Confirmed epileptic for twenty years. Convulsions had been present for twenty minutes. No diminution in severity or duration had been noticed by friends. Twenty minims of the solution, followed in eight minutes by twelve more, were administered. No convulsion or nausea followed. Was unable to learn whether or not an abscess resulted.

CASE V.—J. B., *æt.* 33. History of epileptic convulsions for sixteen years. Patient was in third consecutive convulsion when first seen. Gave thirty minims *by mouth* as soon as paroxysm ceased. Was obliged to administer it in this manner, as my syringe

was not in working order. In six minutes a convulsion occurred, as severe as any previous, but of shorter duration. None followed, and the dose was not repeated. Have every reason to believe that if the veratrum had been administered subcutaneously so that it could have been more quickly absorbed, the result would have been as satisfactory as in the previous cases. No nausea was experienced, as far as could be ascertained.

CASE VI.—J. C., *æt.* 27. History of epilepsy for twelve years was given by friends. Convulsions usually last about an hour and a half. Were of twenty minutes duration when first seen by me. Gave him twenty minims by the hypodermic syringe, and in twelve minutes followed it with fourteen minims, as there was some indication of a return of the convulsions. No paroxysm followed, and no nausea was complained of while under my observation, nor could I learn of any subsequently from the police in whose custody he was.

CASE VII.—J. C., *æt.* 25. On seeing this case, learned that the convulsions had been present for about fifteen minutes, and that no diminution in their severity or duration could be noticed. Gave him eighteen minims of the solution, and as there was no indication of a return did not increase the amount. The patient was able to walk home in about two hours, and was free from nausea and local pain.

My term of service as ambulance surgeon having expired, I was compelled to discontinue my observations, which had more than justified my most sanguine expectations. To recapitulate, the veratrum was administered subcutaneously in nine cases, and although the convulsions had been increasing in severity, or at least were not becoming less severe, no convulsion followed its administration. In the one case in which the drug was given by mouth but one convulsion followed, and that was shorter in duration than the previous ones. Emesis was established in but one instance, and was promptly controlled by morphia. As far as could be ascertained, the injections were not followed by abscesses, and but little local pain was experienced. In conclusion, I believe that the inference to be drawn from the above cases is that, administered subcutaneously, veratrum viride in large doses of from ten to fifteen minims of the U. S. P. tincture, will in almost every instance abort the recurring convulsions of epilepsy, and that used in such doses no unpleasant result will be experienced.

TREATMENT OF TÆNIA.—In the administration of the bark of the root of *punica granatum* for tænia, M. Laboulbène departs from the usual practice, by giving castor-oil after instead of before the anthelmintic. He macerates from two to three ounces of the fresh bark in two glasses of water, for 24 hours, and then boils it down to half the quantity. This is given in two portions, at an interval of half an hour; the oil is given as soon as the patient begins to complain of malaise, intestinal pain, and borborygmus. When administered at this time the oil hastens the expulsion of the worm, which might otherwise refasten itself to the wall of the intestine. Another formula recommended by M. Laboulbène, is the following: Filix mas, ℥j.; syrup of ether, ʒiijss.—M. This is to be taken in one dose, and should be followed in two hours by an ounce of castor-oil. The syrup of ether narcotizes the worm, which is then unable to resist the action of the purgative. The vermifuge should only be given at a time when the patient is passing fragments of the tænia.—*Jour. de Méd. et de Chir.*

## Progress of Medical Science.

### ON CHANGES IN THE MEDULLA OF THE LONG BONES UNDER CERTAIN PATHOLOGICAL CONDITIONS.

In the hope of throwing some light on the pathology of the marrow of the bones, Drs. Litten and Orth examined the bones of 100 persons of different ages, varying between 11 and 81 years, and found to their surprise that in the great majority of the cases the femur contained red marrow to a greater or less extent. Almost without exception this was located in the upper end of the diaphysis, extending in a compact mass to a varying distance in the cylinder; in some cases small round or jagged red nodules were seated in the midst of fatty medulla. In these 100 cases, red marrow was found in 72; hyperæmic fatty marrow, which contained a moderate number of medullary cells, and was in spots of an intense red color, in 17; and pure or atrophic fatty marrow, containing, however, hyperæmic streaks and islets, in 11 only. In most of these cases death had resulted from disease, but in some of them it had been due to injury. The red marrow was found in the latter as well as in the former, but the general conclusion drawn from the cases, was that the deviation from the normal state of the medulla of the bones is principally to be found in connection with chronic diseases, more particularly those which lead to cachexia and marasmus, such, for instance, as phthisis and cancer. The deviation was, however, also met with in some cases in which death had resulted rapidly from acute disease. An interesting point is, that all the acute affections in which red marrow was found were affections that are always, or at least generally, attended by swelling and hyperplasia of the spleen. The results of these investigations confirm also Ponfick's statement, that a varying degree of atrophy of the marrow, with transformation into a gelatinous substance, is frequently found in connection with chronic and especially cachectic diseases.

With regard to the anatomical elements of the medulla, Drs. Litten and Orth regard the nucleated red blood corpuscles as a very constant element, as they failed to find them in only 8 of the 100 cases. All of these eight individuals were over 50 years of age, all of them had died of diseases common to old age, which do not lead to marasmus, and in all of them, with one exception, the medulla was purely fatty. On the other hand these corpuscles were found in a man of 81 years who had died of cancer of the bladder. They were often found, although in small numbers, in apparently purely fatty marrow, and they were sometimes found also, in the blood. Cells, which were much less deeply colored, and were, perhaps, a young stage of the transitional form, were very frequently met with. The ordinary red blood-corpuscles were present in large numbers, and there was also a considerable number of very large, deeply colored cells about 0.01 mm. in average diameter, and without nuclei. These are what Hayem called giant blood-corpuscles; they have frequently been found during life in the blood of anæmic individuals.

The ordinary medullary cells with granular protoplasm were found in almost all the cases; smaller forms with hyaline cell-body were also met with, but less frequently. Cells containing blood-corpuscles were seen in 31 of the 100 cases; some of these cells contained also nucleated red blood-corpuscles. Pigmented cells were even more common; in one instance the pigment was so abundant that the case

led to be regarded as one of melanosis of the marrow. The subject had suffered from chronic intermittent, and the spleen and liver were full of the same pigment. The Charcot-Neumann crystals were found in most but not all of the cases.

The conclusions drawn from these cases by the investigators are, first, that the progressive displacement of the red by yellow marrow as age advances must be admitted, but that the change is by no means regular, and that it can be stopped, and even a retrogressive change caused, by various pathological processes. Second, that, in general, diseases which lead to marasmus are most constantly attended by the development of red medulla in the long bones, and by an increase of the nucleated red blood-corpuscles. Third, that the changes in the marrow in pernicious anæmia are not peculiar to that disease, but are found—even combined with similar changes in the blood—in other diseases attended by intense anæmia.

Drs. Litten and Orth are disposed, from these investigations, to agree with Neumann in the opinion that the changes in the bones are secondary to, and caused by, the anæmia, and that they indicate an effort of nature to counteract the anæmia by increased production of blood. To determine this point they have instituted a series of experiments on dogs, which were made anæmic by repeated and copious venesections. These experiments are not yet completed, but they state that in four of the dogs red marrow was found in long bones that normally contain fatty marrow, and that enormous numbers of nucleated red blood corpuscles were found in the newly formed red marrow as well as in that of the short bones; some of these cells were also found in the blood. In a fifth dog, that was killed after five venesections, the number of medullary cells and of nucleated red blood-corpuscles was unusually large, while that of the ordinary non-nucleated red corpuscles was uncommonly small.—*Berliner klin. Wochenschrift*, Dec. 17, 1877.

**SIX CASES OF CONGENITAL BLINDNESS CURED BY OPERATION.**—Dr. Louis Fialla, of Bucharest, Roumania, reports six cases of congenital cataract that were treated by the operation of dissection or solution. In four of the cases the lesion was bilateral lenticulo-capsular cataract, and in two, bilateral lenticular cataract. Two of the patients possessed a slight degree of sight, but the other four could distinguish only light and darkness. In five of the cases both eyes were operated on, a single operation sufficing for each eye. In the sixth case a small portion of the central part of the left lens was transparent, permitting a certain degree of sight, and the patient would not submit to an operation on that eye. The results in all of the cases were highly satisfactory, a very good degree of sight being obtained, even without glasses. Although four of the patients were over fifteen years of age, one of them being twenty-five, the reaction after the operation was moderate in all but one of the cases.

**TREATMENT OF CHRONIC ADENITIS BY CAUTERIZATION WITH NITRATE OF SILVER.**—This treatment, which is recommended by M. Casson, consists in opening the tumor at its centre with a narrow bistoury, and cauterizing the interior with the solid stick of nitrate of silver. The treatment is employed as soon as fluctuation is apparent, no matter how obscure it may be. This cauterization should be the rule whenever a chronic glandular abscess is opened, whether its walls be thick or thin. It is especially advisable in cervical adenitis.—*Gazette des Hôpitaux*, No. 75.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE EPIDEMIC—ITS LESSONS AND ITS DUTIES.

It is a rude shock for those of us who have come to believe in the impossibility of frightful epidemics in civilized countries to realize that one is in full play about us, slowly but firmly extending its way and accomplishing its work of devastation, with but little hindrance, spite of the most heroic and indefatigable efforts.

We may, therefore, at this time reasonably ask ourselves whether or not we are eventually to gain the mastery over the enemy, or whether, as other epidemics have shown, cessation comes either from lack of victims or from the fall of the temperature, which comes at its regularly appointed time. Under date of September 9th, we see no abatement in the scourge, and we are therefore coming to believe that an alteration for the better is not to be expected at present. It is well to recognize the possibility—indeed, the probability—that the full height of the epidemic is not yet at hand, and we shall then be the better prepared to direct our efforts wisely and with the most effect. Perhaps it is also well to know that in many localities the fatality of the disease has reached the average of the old European visitations (one to three of those attacked), and even in some places the average of tropical epidemics (one to about two). Still we hear that under favoring circumstances, where there has been great care and caution, the deaths have been much less (one in twelve), which shows how much may be done by intelligent treatment, and should be an encouragement when we hear that the cases baffle medical skill.

Removed as we are from the immediate scene of desolation, most of us are prevented from taking an active part in the direct relief of the sufferers, and indeed for unacclimated persons, it would be worse than useless to attempt it; but as we have the whole

scene laid before us from day to day, we may furnish much material aid to those who are working so unflinchingly, and may learn lessons which will be of incalculable benefit in the future. A few facts will illustrate what we may have to expect. In the fall of 1762, in Philadelphia, the epidemic lasted until November, the climax being reached on September 25th. In 1793 it did not reach its height until the first week in October. In 1802, when Philadelphia was again visited, it commenced on the 15th day of July, and did not decline until after October 28th, the greatest mortality being between the 15th and 25th of that month. This being true of a northern town, it is probable the visitation may last fully as long in the southern cities, and therefore the calls which are now being made upon our relief committees to organize for prolonged and systematic work are well-timed.

The question of external and internal quarantine was alluded to in a recent issue, and we held the ground that, in the matter of importation of the disease from outside ports, we should have no fear, as our quarantine authorities have shown themselves able to successfully cope with it. Still as we have no internal quarantine properly so called, healthy localities are peculiarly exposed to the danger of contracting the disease through refugees coming from infected districts. When Health Boards exist, as in St. Louis, measures are taken by the local authorities, and the advent of infection is guarded against. Many of our towns and villages, however, are without sanitary authorities, and are consequently without proper advice as to the precautions necessary to prevent an epidemic, and are ignorant of the means of checking it should it appear. But local Boards are of little use without State Boards to adopt general measures for the State, settle conflicts between districts, and, as in this instance, establish camps for refugees from infected towns. Those of our States who still lag behind in the appointment of these Boards, should take warning by the present sad condition of affairs, and remember that many valuable lives might have been saved if the State authorities had established efficient quarantine in the infected districts, at the outbreak of the disease. Out of the State Boards would, in a short time, rise a National Health Bureau, to regulate the commerce between States at such times as the present, whether by water, rail, or any other mode of communication, to announce the approach of disease, and at other times to draw up health laws for the whole country, regulate the question of pollution of rivers, etc.; matters which are assuming great importance, in so far as many cities obtain their drinking-water from rivers that are more or less polluted by receiving the discharges from sewers and factories. In the present emergency we may not expect aid from the government in the establishment of internal quarantine. Through the office of the Surgeon-General of the Marine Hospital Service we receive weekly bulletins of

the progress of diseases when they are likely to be of importance to us. This is in accordance with Section 4 of the National Quarantine Act, approved April 29, 1878, which provides: "That the Surgeon General of the Marine Hospital Service shall, upon the receipt of information of the departure of any vessel, goods, or passengers from infected places to any port in the United States, immediately notify the proper State or municipal and United States officer or officers at the threatened port of destination of the vessel, and shall prepare and transmit to the medical officers of the Marine Hospital Service, to collectors of customs, and to the State and Municipal health authorities in the United States, weekly abstracts of the consular sanitary reports and other pertinent information received by him."

These weekly abstracts are designed to be "a practical aid to State and Municipal Health Boards, as well as to the port health authorities."

Here, then, we may see the foundation of a National Health Bureau, and of its usefulness we may judge by the accurate information it has been giving us for the past few weeks.

There seems also to be room for further investigation as to the nature of the yellow fever poison, and the method of its propagation, while the question of the value of disinfectants is again in the balances; so, too, whether damp or insalubrious soil has to do with the violence of the disease. If the reports are true, our ideas upon some of these points rest upon a very unstable foundation, and the laborious researches which have engaged so many of our eminent men require extension, and in the light of the modern means of investigation at our command, we should, doubtless, gain a more accurate knowledge of the malady. It is therefore pertinent to second the appeal made by the citizens of Memphis to have a government commission appointed to review the entire subject, and make a scientific inquiry into the "cause, nature, treatment, and future prevention of the fearful epidemic now raging." The matter is one of national importance, for not only has the loss of life been immense, but we have a paralysis of commerce in a large portion of the South, and a severe strain is being put upon the whole country by the efforts of relief which are necessary.

There is a point of practical interest, which, perhaps, is the very first at the present time. It is the subject of sanitary cleanliness in exposed districts. A recent correspondent of the *Times*, in a letter from New Orleans, makes the astonishing statement that "the cleaner the streets, and the more fashionable the quarter, the greater, apparently, is the violence," while "the filthiest streets are either wholly free from taint, or have only widely-scattered cases of a mild type."

This, of course, combats our generally received ideas.

The history of carefully studied epidemics, as those

of Philadelphia by La Roche, has seemed to show that the disease usually originated in certain unhealthy localities, where it was most malignant and fatal. He observes especially that *Water street* played an important part in almost every yellow fever epidemic. According to his description in 1855, it was confined, low, and ill-ventilated, under the bank of the river, inhabited by the poorer and lower classes, and never clean. Two-thirds of the houses had not a single foot of yard-room, and the privies were in the cellar. Then there was a stream which also was intimately connected with yellow fever epidemics. It was called Pegg's Run, and was allowed to receive the offal of slaughter-houses, the drainage of tan-yards, the contents of two culverts and of a number of privies.

There is another point also of interest to us now. When the disease has been epidemic one year, it has been quite apt to return the next, or even continue to return for a series of years. This has been noticeable in the history of yellow fever since its introduction to the country in 1699.

There is another peculiarity about the fever: that it has been apt to assume different types at different times, and, consequently, physicians who have seen the disease for the first time have not been prompt in recognizing it. According to a very intelligent description which we have of it from New Orleans, there is often an absence of the initiatory chill; there is little headache and no pain in the back or loins until the fever has set in.

Then, malarial fever is a complication: this may run on for several days, and then turn into yellow fever; or an attack of yellow fever may run into a remittent fever. The days of greatest danger are the third, fifth, seventh, and ninth, the third being the most fatal, and each of the others less so progressively.

The yellowness of the skin does not appear in more than one case in five. Black vomit is the most fatal symptom, and somewhat more than half the cases die when it sets in. Next in order as a frequent cause of death is congestion of the kidneys, and next, congestion of the brain—which kills in ten per cent. of the cases. According to a record of 200 malignant types, the temperature in fatal cases is about 101° F. on the first day, reaches 105° F. in the early part of the second day, but falls, on the same day, to the neighborhood of 103° F., again rises, on the third and last day, to about 105° F., at which it remains until death supervenes. In non-fatal cases it commences at about 100° F., reaches 105° F. on the second day, but soon commences to fall, and is normal at the end of the third day. The most simple treatment seems to be the best. Useful information on this point is contained in the letter of Dr. Fowler in our last issue.

Undoubtedly the most important part of our duty just now is to remember the condition of the southern



physicians, who have been toiling unremittingly at the post of danger and duty, and whose vigilance and skill may be required for many long weeks to come. They are all devoted to a charitable work, which, for the most part, will neither sustain them nor their families, and they must therefore rely upon the support that can only be furnished them by relief committees. Many, too, have died, and left their families totally unprovided for. It is peculiarly suitable that their professional brethren throughout the country should combine for their relief, and organize a system which shall carry them through the fearful task which is imposed upon them. The Medical Society of the County of New York has led off in forming a committee of its officers, to receive subscriptions for this purpose, and it would be well if all county societies throughout the country would follow its example.

#### THE ROLL OF HONOR.

In another column we publish a list of physicians who have died while in attendance upon the yellow fever patients in the different cities of the South. As it stands, it is a simple record of dates and names which are extracted from the telegraphic dispatches furnished to the Associated Press; but to the medical practitioner there is an interest in the occurrences which is hidden from the ordinary eye, and which proves an intensity of devotion to professional duty scarcely appreciated by the public at large. The people expect personal sacrifices because they are the rule with the profession, forgetting, perhaps, that the life of the doctor is as precious to himself and family as if he were another person. The real fact, however, is that during a pestilence, and always knowing the danger, the physician never hesitates to hazard life in the performance of professional work, and, falling with those around him, he elevates his action to that sublimity of heroism which can only belong to a willing martyrdom for helpless suffering. When the cry for help went out over the land, the merchants and bankers pitied the sufferers, and, with a generosity worthy of the cause, emptied their coffers into the common charity: the Howards came to the rescue, and, with their valiant band of helpers, distributed their good offices everywhere; and, lastly, the humble doctor offered his services to stem the tide of devastation and death. Death is in the line of his duty, and the greater the force of the pestilence, the more stubborn must be the fight. But the struggle is so unostentatious that one hardly knows it is going on. He takes his stand at the lone cot of the pauper, under cover of the night, in the silent chamber of the dying, with his life in one hand and help in the other, with pestilence stalking everywhere—and yet there is something within him which, for want of a nobler name, is called duty, which always nerves him to fight persistently, silently, and patiently to the end.

How many noble examples of this have we witnessed

during the present epidemic, and how proud as a profession should we be of our brothers who—without hope of fame, without thought of reward, and with the single idea of succoring the needy—have lain down their lives upon the common altar of our humanity! Let us cherish their memories, emulate their example, and take fresh courage for the daily life-battle before us. Let us hope that the ranks of such heroes will always be full, and each in the humble, stern way of his duty, whether in Maine or Mississippi, in Illinois or Louisiana, whether amid the horrors of pestilence or in ordinary and numerous sacrifices of professional life, be ever ready to perpetuate the glorious record of those who have gone before. We are glad to learn that the Medical Society of the County of New York are taking the necessary steps for the preparation of suitable memorials for our departed friends, and we have no doubt that all the necessary data will be furnished in due time. For one and all the common epitaph can be conscientiously and consistently written, "Well done, thou good and faithful servant."

### Reports of Societies.

#### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, June 26, 1878.*

DR. E. C. SEGUIN, VICE-PRESIDENT, IN THE CHAIR.

#### REPORT OF MICROSCOPICAL COMMITTEE.

DR. WESLEY M. CARPENTER read the following report of the Microscopical Committee:

The Microscopical Committee, to whom was referred the spleen presented to the Society by Dr. Beverley Robinson at its stated meeting, held June 12, 1878, submitted the following report:

On making sections of the organ, the cut surface was found thickly studded with small, round bodies, which had a whitish color and were easily detached with a needle, springing out as it were from the surrounding tissue.

These bodies when teased in glycerine and water, were found to consist of a basement-substance composed mostly of reticulated connective tissue, in which were imbedded small round and oval cells, together with irregular-shaped and indistinctly nucleated masses, which probably were the so-called giant-cells. On making these sections and staining them with hæmatoxylin, the little bodies presented appearances commonly seen in tubercle; that is, the central portion of some of them was changed into a granular and somewhat structureless mass which did not readily take the staining fluid; of others there was an abundant stroma, while along the borders were well-developed round and oval cells, and in places could be seen the irregular-shaped masses which have been referred to as probable giant-cells. The spleen, therefore, contained miliary granulations which presented the gross and microscopic appearances of tubercle. Dr. Satterthwaite has examined the specimens and concurs in the above report.

LIGATION OF LINGUAL ARTERY NEAR ITS ORIGIN. EX-  
TIRPATION OF CANCEROUS DISEASE OF THE TONGUE.

DR. GEO. F. SHRADY presented an epitheliomatous tumor of the tongue, which he had removed the day previous by operation, having previously ligated the lingual artery near its origin. (See page 204.)

Dr. Post remarked that Dr. Shrad's case afforded a very striking illustration of the absence of anastomosis between the two sides of the tongue, the ligation of the lingual artery of one side being sufficient to control the hemorrhage from the half of the tongue removed. He stated that in the museum of the University there was a tongue which was enormously injected in one-half, while the remaining half was free; none of the vessels of the latter contained any injection, except along the line of the mucous membrane.

Dr. SANDS said that the removal of cancer of the tongue was a very difficult operation, and one which was very unpromising in its results. There was probably no cancer more malignant than that of cancer of the tongue; no form of epithelioma which was more prone to kill quickly after removal. The question had presented itself to him whether the latter circumstance was not owing to the difficulties in extirpating the disease. He had often felt uncertain upon the latter point. The exposure of the morbid tissues was very difficult, even with the best means at our command; the size of the mouth was comparatively small, the light was usually bad, while the cavity was apt to be filled with more or less blood, which increased the difficulty of the undertaking. He stated that he had no experience in ligation of the lingual artery as a preliminary procedure. He had seen the artery tied but once in the place of election. In that case the difficulties of that operation were very great. The patient was an inmate of St. Luke's Hospital, and the operation was performed for a vascular tumor of the tongue. It struck him as a very formidable operation, and very much more difficult than he had been led to anticipate from dissections of the dead body. Very good surgeons had attempted to tie the artery and failed. Billroth was one such. He tied, as he supposed, the lingual as a preliminary operation, but was astonished to find, on making a section of the tongue, that the main artery bled very copiously, compelling the prompt application of the ligature. The patient died soon after, and at the post-mortem examination it was found that the lingual vein had been mistaken for the lingual artery. Considering the difficulty in securing the lingual, he preferred, when the disease was situated in the floor of the mouth and was extensive, to divide the jaw in the median line, and in that manner expose the diseased parts. This gave a very thorough exposure of the tongue and floor of the mouth, at the same time allowed easy access, without undue hemorrhage, to the diseased parts. The objection to the operation was that the result was very often complicated with non union of the divided bone. He thought another indication in the operation was to cut wide of the diseased tissues. About four months before, a gentleman, on the eve of departing for Europe, came to his office with cancer of the tongue. Dr. S. sent him to a distinguished Parisian surgeon. The latter as well as two other surgeons agreed in the diagnosis and proceeded to remove the disease with the *écraseur* and the Paquelin cautery. It was stintingly done, and the wound never healed. A month afterwards the patient presented himself with an ulcer along the line of section.

It may have been possible that in that short time the

disease had reproduced, but it was more probable that some of the disease had been left by the operation.

Dr. BRIDGES stated that he was present during an operation by Dr. Sands for the removal of the tongue by galvano-cautery, and when the latter was indicated he could not conceive of anything that could answer a better purpose. In regard to the difficulties of ligating the lingual artery, a great deal might be said. He had seen an attempt made to secure the artery, and had witnessed its failure by a distinguished surgeon of this city; he had also seen the artery tied successfully. The operation, as performed by Dr. Shrad, and based upon an accurate knowledge of the anatomy of the parts, was divested of a great many of its difficulties. No surgeon who was not a thorough anatomist should undertake the operation. He could not conceive how it was possible to mistake the lingual vein for the artery. In Dr. Shrad's case the latter vessel was seen to pulsate distinctly as it was lifted upon the aneurism needle. The ligature was applied where it always should be applied, and although in that situation it is said to be attended with more than ordinary difficulty, it was done with comparative ease, the whole procedure occupying less than twenty minutes. He believed that, when properly done, the operation was divested of danger. When the ligature was applied, as was the rule, within the digastric triangle, there was very apt to be hemorrhage from the root of the tongue supplied by the dorsal branch.

Dr. SHRADY remarked that in deciding upon the performance of the operation, he had several circumstances to take into account. In the first place, he promised the patient that he would not mutilate her face or divide her jaw, unless such was absolutely necessary. This ruled out the operations of Collis and Syme. In the second place, he believed that he could reach the disease more satisfactorily with the knife and scissors than with the *écraseur*, especially at only half of the tongue was to be removed. In the third place, the patient's mouth was shallow, and the diseased parts could be brought within easy reach.

The only serious objection to such a measure was the hemorrhage which might ensue, which objection was obviated by cutting off the entire blood supply of that side of the tongue by a ligature of the lingual near its origin. He thought when the lingual was tied the operation of removal of the tongue through the mouth was the one to be preferred, as there was then no danger of hemorrhage, and the dissection could be carried on with ease and deliberation. Of course, when the disease involved the floor of the mouth to such an extent as to make it impossible to remove it otherwise than by a division of the jaw, the latter procedure was imperative. In his case he believed that all the diseased portions were removed without such an operation. And this was a better result than he had at first anticipated.

Dr. CARPENTER remarked that the history of the case illustrated in a striking manner the value of an early operation. He had seen the case, in consultation with Dr. Lyons, in the latter part of March. At that time there was a simple ulceration surrounding the tooth, one inch in length by three-quarters of an inch in breadth. He thought that at the time it might have been easily removed by a simple excision. From a clinical point of view, the case, up to the time when Dr. Shrad saw it, was interesting. In the first place there was an association of local irritation with the production of cancer. Secondly, as to treatment there were some matters to be taken into account. The patient, not being willing at first to have a



operation performed, was placed upon medical treatment. Arsenic was administered for a number of days, perhaps two weeks, and with marked benefit; his pain was very much less, and the angry look of the ulceration subsided. The disease then increased, when local applications of the arsenic were made—likewise with temporary benefit. Subsequently citric acid was applied, also with very good effect for a while. Subsequently to this, no medical treatment was of any avail; her pain was intense, and her condition became deplorable. Yet, in the beginning the disease could have been removed by a very simple operation.

DR. RIPLEY had tried the arsenic treatment several times, but had never seen any special good from it. He referred to a case which was said to have been benefited by large doses of iodide of potassium. The patient was treated in St. Luke's Hospital, but, shortly after this favorable report was made, rapidly died from cancer.

DR. BRIDDON never experienced the slightest benefit from arsenic in such cases. Dr. B. asked whether in cancer of the tongue any benefit that might be derived from operation justified the use of any excessive mutilation—such, for instance, as section of the lower jaw.

DR. SANDS believed he could answer that question in the affirmative. Cancer of the tongue was a dreadfully painful disease, and justified severe treatment in any case. When there was a chance of removing all of the disease by splitting the lower jaw, that operation should be done. When there was no such opportunity, he favored the division of the gustatory nerve. He had performed such an operation in three cases with marked benefit, the excessive pain being thereby very markedly and satisfactorily controlled in two, while in a third it was entirely removed until the death of the patient three months afterwards.

DR. POST remarked that in cases where it was expedient to extirpate the floor of the mouth for cancerous disease, the division of the jaw greatly facilitated the operation. It was, indeed, not a formidable complication for the soft parts, and there was not likely to be non-union of the bone when the divided ends were well wired together. He thought that the procedure added to the safety of the operation, as thereby the danger of hemorrhage was diminished. When it was necessary to make deep dissections in the mouth and far back through the tongue, there was great difficulty in securing bleeding vessels, and the jaws could not be separated widely enough to admit of the necessary light. He mentioned in this connection the case of an old woman from Long Island, upon whom he had performed that operation. He did not consider that she suffered thereby, or that her subsequent death was hastened by it.

DR. MASON remarked that he had seen it stated somewhere, that when the tongue was removed by galvano-cautery there was more likelihood of secondary hemorrhage. He mentioned a case in point, that of a female patient at the Roosevelt Hospital. One portion of the side of the tongue was removed by galvano-cautery, and she went home the following day. Within twenty-four hours afterwards there was violent secondary hemorrhage, requiring a ligation of the vessel in the wound. Hemorrhage recurred in twenty-four hours, and the physician being apprehensive of the case, Dr. Mason ligated the lingual artery in the triangle.

DR. SHRADY thought that the splitting of the jaw complicated the recovery of the patient, and should

be avoided, if possible. He did not believe it was necessary in his case, as the sequel showed. As far as the control of the hemorrhage was concerned, that was effected by the ligation of the lingual, which for such an object was to be preferred to division of the jaw. The division of the gustatory was not indicated in his case, as all the disease could be removed along with the portion of nerve affected.

#### REMOVAL OF CONGENITAL CYSTIC TUMOR OF THE THYROID GLAND.

DR. SANDS presented a specimen that was of interest, on account of the rarity and severity of the operation for its removal. The patient was a girl of six years, in excellent health except for the disease which necessitated the operation. It was related by her mother that she was born with a large tumor of the neck, and also that the tumor had gradually increased, interfering by its size with the relations of the surrounding parts. It gave her no trouble, however, except by its deformity, until two and a half years ago, when it became inflamed and painful. It was lanced, and pus in considerable quantity was discharged. Shortly after being lanced it broke spontaneously, and discharged by two openings up to the time of her admission to the Roosevelt Hospital. The tumor then projected from the median line of the front of the neck, more to the left than the right, and was of a rectangular shape.

It was limited above by the hyoid bone, or seemingly by the chin, when the head was flexed. Below it extended nearly to the sternum. Behind, on the left, it reached to the posterior border of the sternocleido-mastoid muscle. On the right it extended to the anterior border of the same muscle. Everywhere the limits of the tumor seemed well defined. Above it did not involve the submaxillary triangle, in which situation, on the left side, the carotid artery might be felt pulsating, evidently below the base line of the tumor. Just below that point the tumor pulsated, probably from resting on the artery below. This coincided with the radial pulse. The base of the tumor appeared loose in its attachments and anterior to the important structures in the median line of the throat. The skin was adherent to the tumor beneath at these points only. There were no large veins in the skin over or about the tumor. There was a slight enlargement of the glands in the left axilla. The consistency of the growth was firm and nodular, and at one or two places yielded a tense cystic feel. The tumor moved some on swallowing, which was done without difficulty. The voice was a little husky. Measurement of tumor: complete measurement from side to side, 9 $\frac{1}{2}$  inches; complete measurement from above below, 6 $\frac{1}{2}$  inches; lateral measurement from behind forward, 4 $\frac{1}{2}$  inches; anterior surface of tumor in median line, 4x3 $\frac{1}{2}$  inches; circumference of neck at middle, 14 $\frac{1}{2}$  inches; circumference of neck after operation, 9 $\frac{1}{2}$  inches.

*Treatment.*—Patient brought in good condition for operation. Dec. 5th, the patient being under ether, the operation for removal of the tumor was performed by Dr. Sands, assisted by Drs. Markoe and Mason. The tumor being well drawn over towards the left, an incision four inches long was made well over to the extreme left and posterior border of the tumor. The incision was vertical, extending from the lower border of the mastoid process above to nearly the lower extremity of the tumor below. The skin and fascia being cut through, the surface of the tumor, covered by a dense capsule, came into view. The external jugular vein was not exposed. The posterior flap was then dissected back from the tumor, showing

numerous enlarged veins coursing over the surface of the growth; several of these were secured by passing threaded aneurism needles about them. The dissection was then continued by means of the finger, scalpel-handle, and scissors—curved on the flat backward towards the base of the tumor, which was drawn forward by blunt hooks. The internal jugular vein was soon exposed, with the carotid artery, felt pulsating beneath it. The tissues were now mostly torn or divided on a director, several ligatures being required on small spurting points. The lower end of a divided branch of the internal jugular vein, close to the main trunk, was guarded by digital pressure, and the dissection was soon brought to the left side of the larynx and trachea. Further advance in that direction was then temporarily arrested. A second incision from the middle of the first was then carried across the whole breadth of the tumor to the right side of the neck, thus completing a T-shaped cut. These flaps were rapidly dissected back, with scalpel and scissors curved on the flat, soon exposing the whole of the front of the tumor. The mass was then drawn over to the left side by hooks, and the dissection carefully carried towards the root of the tumor, about the larynx and upper part of the trachea. One or two ligatures to small vessels were all that were found necessary. The child beginning to show symptoms of shock for the first time, the dissection was soon brought to a termination, the last attachment at the root being that to the thyroid cartilage, to which it appeared quite closely united. Everywhere else its limits appeared well defined by its capsule. Time for removal, forty-two minutes. The pulse and respiration, at this time, were still fair in quality, but very soon severe symptoms of syncope came on. Pulse and respiration almost imperceptible. Elevation of lower extremities of the body; application of Esmarch's bandage to the limbs. Injection of whiskey subcutaneously and by the rectum, with inhalation of *pure oxygen gas*, resuscitated the patient, the last-named agents proving themselves markedly beneficial. The incision was then brought together by sutures, except at the most dependent parts on the left side, where a drainage-tube was inserted, held in place by a string about the neck. A dressing of carbonized oil spread on sheet-lint and covered by jute was put on. Although no large vessels were divided, there was considerable oozing and consequent loss of blood during the operation.

At the close of the operation diligent search was made for the thyroid body, but none was found.

The progress of the case gives nothing of special interest to relate. The patient made a good recovery, the temperature never rising above  $101\frac{1}{2}^{\circ}$  F. The following was a report of the examination of the tumor by Dr. Delafield:

The tumor was seen after it had been soaked in dilute alcohol for 24 hours. At that time it measured  $4\frac{1}{2} \times 3$  inches, and weighed 317 grammes. It was composed of a number of large cysts, some containing a thin fluid, some gelatinous matter, some atheromatous matter.

Between the cysts were many large and small nodules of hyaline cartilage, in parts infiltrated with the salts of lime. Between the cysts was also some soft tissue. This was composed partly of compact connective tissue, partly of tissue arranged so as to form a loose mesh-work.

In the spaces thus formed were rounded and polygonal nucleated cells; there was also some infiltration of similar cells in the adjacent compact tissue.

In a few places were large tubules lined with cylindrical epithelium, and rounded follicles filled with

gelatinous matter and looking like follicles of the thyroid body.

Dr. SANDS remarked that congenital cysts of the neck were extremely interesting in connection with questions regarding treatment by surgical operation. It was well known that in many instances the growth was quite rapid from the start, while in others no progress was made until adult life. Their deep-seated situation, and the frequency with which they involved important vessels and nerves in their neighborhood, invested any procedure for their removal with interest. The operation was undertaken in the case in question for the removal of a dreadful deformity in an otherwise beautiful child, and for the arrest of a discharge which was becoming very offensive and profuse. The operation itself did not promise to be a very difficult one, inasmuch as the finger could be passed behind the growth and there were no evidences of deep-seated adhesions. The sequel proved, however, this conjecture to be erroneous.

The tumor was interesting in regard to its probable nature, or rather to the texture in which it took its origin. The question was, whether the tumor simply originated in the thyroid gland, or was a congenital tumor of that gland. So far as he had been able to ascertain, there was very little known concerning congenital tumors of the thyroid body. Von Ammon spoke of congenital tumors that attained considerable size, but the satisfactory evidences of their true nature were wanting. Mr. Holmes, fifteen years ago, said that when such tumors were found they should not be detached. Dr. Sands did not think that the real difficulties of the operation were increased whether the tumor was in the thyroid body or not. So far as the operation was concerned, even if the growth had such an origin, the vascularity of the thyroid body would be wanting in the tumor. Whether the tumor did have its origin in the thyroid body could not be told. The tumor rose and fell during deglutition, was firmly attached to the thyroid cartilage, and after the dissection no traces of the thyroid were discoverable. On the whole, in the absence of proof to the contrary, he was inclined to look upon it as a congenital cystic tumor of that gland.

#### WOUND OF AXILLARY VEIN.

Dr. POST wished to state that the patient from whom he had removed a large tumor of the breast, involving the axillary vein, and whose history he had presented at the previous session, died a few days after the operation.

#### CHELOID TUMORS OF THE EAR.

He then presented some cheloid tumors removed from the lobes of each ear, the result of wearing earrings. In order to cover the parts from which the growths were removed, a supplementary plastic operation was performed. The patient being under ether, the tumor in the left lobe was cut out, preserving a small portion of the integument from the interior, as well as from the posterior part, being able to form a lobe by these two pieces being brought together by sutures. On the right side the tumor was removed, preserving a small part of integument on the interior portion, but was obliged to cut all the posterior part of the integument up to the helix. To supply the deficiency a triangular flap of integument, with its base uppermost, was dissected from the inframastoid region of the neck, and doubled upon itself so as to be attached by sutures to the internal and external margins of the flap of integument which had been preserved in front. The sides of the triangular wound from



which the flap had been taken were brought together by one pin suture and a number of fine silken ones. Two head sutures were employed to bring together the new-formed lobe.

#### FIBRO-PLASTIC TUMOR OF CALF OF LEG.

DR. POST lastly exhibited a fibro-plastic tumor of the gastrocnemius muscle, which he removed by operation from a lad 18 years of age. Although the entire substance of the muscle was removed at the situation of the growth, the wound healed by first intention throughout its entire extent, except at the situation of the drainage-tube.

#### A CASE OF ROUND GASTRIC ULCER WITH REFERENCE TO ITS ETIOLOGY.

DR. R. W. AMIDON presented a specimen of ulceration of stomach, illustrating the origin of the disease. The history was as follows:

March 27, 1878, a male, æt. 37, fell fifteen feet, breaking four ribs. Eighty-two days later he died of a combination of pneumonia and pyo-pneumothorax, having manifested during his sickness no symptoms of gastric disturbance. On post-mortem examination, in addition to the pulmonary lesions, which we will pass over, was found marked atheromatous stiffening of the aortic valves, with moderate atheromatous degeneration of the aorta. On the lesser curvature of the stomach was found a healed round ulcer. The ulcer was one and a half inches long by seven-eighths inch wide, and at one margin quite deep—its base, evidently, when new, reaching or penetrating the muscular coat.

On the base of the ulcer, which was covered by smooth cicatricial tissue, were two depressions giving the ulcer more or less of a funnel shape.

In the subserous areolar tissue, at some distance from the ulcer, were seen two arteries with their venæ comites leading directly to the ulcer. When followed by a delicate director and scissors their lumen is found to be abruptly occluded directly under the ulcer.

For many years German (Virchow first), and later other authorities, have maintained that true or round gastric ulcer had for its sole cause circumscribed interruptions of blood-supply *i. e.*, either thrombosis or embolism. To the former cause can be traced ulcers occurring in anemic, chlorotic, and marasmic subjects, where no lesion but the ulcer can be found on post-mortem. To the latter cause can be traced ulcers occurring in subjects having endarterial or endocardial disease. In the present case the existence of endocardial disease points conclusively to embolism as the cause of the ulcer. It is well known that only the free surface of the gastric mucous membrane affords an acid reaction, the deeper tissues being alkaline. It is this alkalinity which prevents self-digestion of the mucous coat by the gastric juice. This alkalinity is kept up only by the constant renewal of the alkaline fluids by the blood. Experiment has shown\* that cutting off the blood-supply, as in ligation of the cæliac axis, self-digestion takes place; while introduction of foreign bodies (emboli) causes ulcers (Panum). The circumscribed patch, cut off by embolism from arterial supply, loses its alkaline reaction, and is digested by the gastric juice.

#### THE MICROSCOPIC ANATOMY OF NECROTIC BONES.

DR. C. HEITZMANN presented microscopic specimens of necrotic bone. The structure of both healthy and

necrotic bone had been studied in his laboratory by Dr. C. F. W. Bödecker, who succeeded in finding out striking differences between the two, which up to this time were entirely unknown. The observations were summed up in the following results: In the healthy bone, the so-called lacunæ contain protoplasmic bodies, with a distinctly visible net-like arrangement, to be regarded as the living matter of the protoplasm. The basis substance is pierced by numerous coarse and fine canaliculi, communicating with each other, as well as with the lacunæ. The protoplasmic bodies, which do not quite fill the lacunæ, send offshoots of the living substance into the canaliculi, but can only be seen in the coarser ones. In the necrotic bone, traces of former osteitis are visible, but no blood-vessels present in the Haversian canals, which are filled with organisms of decomposition, namely, micrococci. In necrotic bone, most of the lacunæ contain no protoplasm, but either a coarsely granular or a structureless mass—remnants of the living matter and coagulated albumen. C. F. W. Bödecker's paper has been recently published in the *Philadelphia Dental Cosmos*.

The Society then went into Executive Session.

## Correspondence.

### HOMŒOPATHY AND EXCLUSIVENESS.

TO THE EDITOR OF THE MEDICAL RECORD.

STR:—The letter of "Medical Ethics," in your issue of the 7th inst., is somewhat peculiar, and suggests to the attentive reader the idea that its writer is but partially acquainted with the facts, or else is not writing in good faith.

His first error is the statement that "the morbidly conscientious querist might with equal plausibility, under its soothing influence, consult with eclectics." A reference to the Report of the Comitia (MED. REC.) will show that the eclectics are exclusives inasmuch as they exclude, by public declaration, certain drugs and methods of treatment.

"Medical Ethics" asks: "Does not a regular graduate forfeit his professional standing by practising empiricism, exclusivism so-called, and by joining associations which uphold similar doctrines?" An answer to this query turns upon the meaning of the terms "empiricism" and "exclusivism." The word empiricism is used in two widely differing significations. In the first place it means a practice founded upon experience only, without the aid of a general theory. Under this definition the practice of the majority of the profession is certainly empirical, and if that of "Medical Ethics" is not, it may not be impertinent to ask what is his guide in treatment. Conversely, the practice of homœopaths is not empiricism, for they claim to possess a general guide capable of indicating the appropriate treatment in cases where experience is silent.

For the second signification of the term empiricism we turn to the Code of Ethics. The only reference that we find to the subject is in Sec. 3, Art. I., Chapter II. Referring to advertising, cards, hand-bills, proving radical cures, publishing cases and operations in the public prints, etc., the Code says: "These are the ordinary practices of empirics, and are highly reprehensible in a regular physician." Under this definition we certainly would answer this portion of "Medical Ethics" query in the affirmative, and agree that the "regular graduate" should "forfeit his pro-

\* COHN, Klin. d. embol. Gefässkrkh., p. 515.

professional standing" if he follows such practices. Does "Medical Ethics," however, pretend that the homeopaths are guilty of these breaches of professional honor to any greater extent than the members of our own organizations? If so, let him advance the proofs. Homeopaths, then, are not specially devoted to "empiricism" in either meaning of the term, and if "Medical Ethics" uses the term in a different signification from the ones we have given, it certainly devolves upon him to furnish his own private definition of it if he wishes his writings to be clearly understood.

As regards "exclusivism," we also agree with "Medical Ethics" that a regular graduate should forfeit his professional standing for practising exclusivism. We may, however, differ from him in the signification of the term, and until we are acquainted with his own definition of it, we are hardly in a position to discuss its applicability to the present issues. Taking the Code as its guide, the Comitia Minora have given its opinion that the so-called liberal homeopaths are not exclusives. If "Medical Ethics" differs from the Comitia, it certainly is incumbent upon him to point out distinctly what it is that these homeopaths exclude. For our own part, we do not see in what their exclusiveness consists, and, until further enlightened, are disposed to accept the opinion of the Comitia.

Turning from these points, we come to another, which "Medical Ethics" apparently deems of special importance, as he has placed it in italics. In quoting, we give it the same prominence. He proposes, as an amendment to the Code, that

*"Any member of a county medical society who shall consult with or meet professionally any physician who is not a member of the society of the county in which he resides, or of a kindred society of another county, shall forfeit his membership. This liability shall also apply to professional intercourse with physicians of other States who are not members of a society recognized either by the American Medical Association or the Medical Society of the State of New York."*

As most of the homeopathic and eclectic practitioners of this State belong to county societies, this amendment would permit us to consult with them, but forbids consultation with similar practitioners in other States. We fail to see a good reason for this distinction, and fail to understand why "Medical Ethics," after inveighing against exclusivism in general, should be willing to open the doors to consultations with eclectics and to all homeopaths, some of whom are as exclusive as Hahnemann himself, if not more so.

"Medical Ethics" further says, "while drawing the lines tighter," etc. This at first thought seemed a little at variance with the proposed amendment, but upon examining the matter more carefully, we find that the amendment, if adopted, would exclude from professional recognition at least one-third of the physicians of this county, whose names are in the Medical Register, including even the President of the Academy of Medicine. Can it be that "Medical Ethics" honestly proposes such a measure? or has he been a little careless in the statement of his views?

The great curse of the medical profession at the present day is sectarianism, and any movement that tends to its overthrow should meet the encouragement of good men, and every attempt to restrict the liberty of thought and freedom of practice by educated men should and will be defeated in the end. Our own sentiments are well expressed in the formula so often quoted: "*In certis unitas, in dubiis libertas et in omnibus charitas.*" Respectfully yours,

SENEX.

## Obituary.

### WASHINGTON LIGHT ATLEE, M.D.

OF PHILADELPHIA.

WASHINGTON LIGHT ATLEE, M.D., died at his residence, Philadelphia, on Saturday evening, September 7th, of cancer of the stomach, a disease from which he had long suffered.

He was born at Lancaster, Pa., on February 22, 1808, and was consequently in his 71st year. He was the youngest son of William Pitt Atlee, and grandson of Hon. William Augustus Atlee, one of the early Judges of the Supreme Court of Pennsylvania, his term extending from 1777 to 1793. His maternal grandfather was Major Washington Light, a soldier in the army of the revolution.

At the age of fourteen, young Atlee was placed in a dry goods store. At the expiration of eighteen months, not being satisfied with the commercial life, he commenced the study of medicine in the office of his brother, Dr. John L. Atlee, of Lancaster. In 1829 he graduated at the Jefferson Medical College, in this city, and commenced the practice of his profession in the town of Mount Joy, where he frequently lectured on scientific subjects, and became known throughout the State as an active and earnest temperance advocate and orator. In 1834 he returned to Lancaster, and for ten years closely applied himself to his profession.

In 1845 Dr. Atlee was elected to the chair of Medical Chemistry in the Medical Department of the Pennsylvania University, and in the same year removed to Philadelphia and entered upon the discharge of his new duties. He filled the chair until 1859, when his private practice was so great that he was compelled to resign. He was an active member of the State and County Medical Societies and the American Medical Association. A brilliant extempore speaker and an able debater, his weight was always cast in favor of a higher medical education and a broad and liberal construction of the rights and duties of medical life. As a practitioner, he was famous for his advocacy of the operation of ovariectomy. Commencing its performance and defending its propriety at a time when hardly another surgeon in the land dared support him, he vindicated its merits by his success in more than three hundred cases. Dr. John L. Atlee, the brother of Washington, and with whom he prosecuted his earlier studies in surgery, performed the operation in 1843 with entire success. Being associated with his brother in the case, Dr. W. L. Atlee at once began studying the literature of the operation, and spent much time in collecting and collating all that had any bearing on the subject. He performed his first operation in 1844, in Lancaster County, on a married lady, aged sixty-eight. It proved fatal. In the same year he performed it successfully on a younger patient in Lancaster City.

It was during this year that he came to Philadelphia to reside permanently. He found ovariectomy everywhere decried. It was denounced by the medical profession, in medical societies, in all the medical colleges, and discouraged by his own colleagues. He was pointed at as a dangerous man, even a murderer, and a celebrated professor, in a published lecture, invoked the law to arrest him in the performance of the operation. His first patient in Philadelphia was visited by an eminent surgeon twenty-four hours before the operation was performed, and warned that



if she permitted it she would be a dead woman in twenty-four hours. She declined to believe, was operated on, and recovered. Dr. Atlee lived to see the practice he sought to establish generally recognized, by many of those indeed from whom he encountered the greatest opposition. As a writer he contributed ably to all the current medical and surgical magazines. The prize essays of the American Medical Association in 1853 included one written by him, and quite recently (1872) he summed up his extended experience in a volume on ovariotomy. His loss to his profession, which he adorned, and to society, where he was esteemed and admired, is a severe one.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 1 to September 7, 1878.*

KING, WM. S., Lieut.-Colonel and Surgeon. Assigned to duty at Carlisle Barracks, Pa. S. O. 156, Dept. of the East, August 31, 1878. Granted leave of absence for six months on account of sickness, with permission to apply for an extension, if necessary. S. O. 190, A. G. O., September 2, 1878.

SIMONS, J., Lieut.-Colonel and Surgeon. Assigned to duty at Fort McHenry, Md. S. O. 156, C. S., Dept. of the East.

HEAD, J. F., Lieut.-Colonel and Surgeon. Assigned to duty at Fort Independence, Mass. S. O. 156, C. S., Dept. of the East.

MCPARLIN, T. A., Major and Surgeon. Assigned to duty at Fort Hamilton, New York Harbor. S. O. 153, C. S., Dept. of the East.

MCCLELLAN, E., Major and Surgeon. When relieved by Asst. Surgeon Gray to proceed to Fort Lapwai, Idaho, and report for duty at that post. S. O. 104, Dept. of the Columbia, August 22, 1878.

BARTHOLO, J. H., Captain and Asst. Surgeon. Relieved from duty at Camp Harney and assigned to duty at Fort Stevens, Oregon. S. O. 104, C. S., Dept. of the Columbia.

GRAY, W. W., First Lieut. and Asst. Surgeon. Assigned to temporary duty at Fort Vancouver, W. T. S. O. 104, C. S., Dept. of the Columbia.

CAMPBELL, A. B., Captain and Asst. Surgeon. Died at Chicago, Ill., on Sept. 1, 1878.

**TREATMENT OF PUERPERAL FEVER.**—In cases of puerperal fever, Dr. Jas. Glover gives the following mixture every three or four hours:

|                         |          |
|-------------------------|----------|
| B. Quiniae sulph. ....  | grs. ij. |
| Tr. ferri chlor. ....   | ℥℥x.     |
| Spti. chloroformi. .... | ℥℥x.     |
| Syrupi simp. ....       | 3 ss.    |
| Aque destil. ....       | 5 i.     |
| M.                      |          |

He also gives a pill containing half a grain of opium, every three, four, six, or eight hours, and applies a large poultice sprinkled with laudanum over the abdomen. This is renewed every three or four hours. He orders the vagina to be syringed out, at least twice a day, with warm water, containing a little Condyl's fluid. He rejects ipecac on account of its nauseating properties, and calomel on account of the intestinal irritation it produces. For diet he gives beef-tea or chicken soup, brandy and arrow-root.—*The Lancet.*

### Medical Items and News.

**CONTAGIOUS DISEASES — WEEKLY STATEMENT.**—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 7, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Aug. 31, 1878. | 3             | 34             | 51             | 4                          | 7        | 22          | 0          | 0             |
| Sept. 7, 1878. | 1             | 19             | 27             | 3                          | 2        | 37          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., Sept. 7, 1878.

**NATIONAL QUARANTINE REPORT.**—Abstract of sanitary reports received during the past week under the National Quarantine Act:

*New Orleans.*—During the week ending yesterday noon there were 1,732 cases of yellow fever and 526 deaths, making in all, 4,609 cases and 1,395 deaths. During the twenty-four hours to noon yesterday there were 280 new cases and 61 deaths.

*Port Eads, La.*—During the past week there was 1 death from yellow fever, but no new cases.

*Morgan City, La.*—During the week to yesterday noon there were 14 cases of yellow fever and 2 deaths, making in all 22 cases and 6 deaths.

*Vicksburg.*—During the week ending yesterday evening there were 181 deaths, 41 of which occurred in the last twenty-four hours, making in all 366 deaths. About 2,500 cases have occurred since the outbreak. Surgeon Keyes telegraphs that "the fever is on the increase, and it is impossible to obtain accurate data."

*Grenada.*—Dr. Warren Stone reports 96 new cases of yellow fever and 49 deaths during the week ending yesterday evening.

*Canton, Miss.*—During the fortnight ending yesterday noon there were 172 cases of yellow fever and 22 deaths, making in all 190 cases and 30 deaths. There are 120 cases under treatment, of which 16 occurred during the last twenty-four hours.

*Ocean Springs, Miss.*—During the week ending yesterday evening there were 15 cases of yellow fever and 5 deaths.

*Holly Springs.*—The first case of probable yellow fever occurred on the 27th of August, resulting in death Sept. 1st. 2 deaths from undoubted yellow fever followed on the 2d. To yesterday evening about 100 cases and 25 deaths had occurred. More than one-half the population fled the city between the 2d and 5th inst. All of the members of the Board of Health are sick.

*Memphis.*—For the week ending Thursday evening, Sept. 5th, there were 529 deaths from yellow fever. Dr. Thornton reports that the number of cases cannot be obtained. During the week before, the number of deaths (241) and the number of cases (721) were as 1 to 3.

*Hickman, Ky.*—The first case of yellow fever occurred August 16th. There were 60 cases and 24 deaths to yesterday evening.

*Louisville.*—For the week ending yesterday evening there were 25 new cases of yellow fever and 7 deaths, all refugees and river boatmen.

*St. Louis.*—During the week ending yesterday evening there were 3 deaths from yellow fever—2 refu-

goes and a resident nurse who attended the refugees in hospital. At quarantine, below St. Louis, there were 10 new cases admitted, and 9 deaths, all refugees but one, the steward of the quarantine hospital, who is now sick, he having contracted the disease at quarantine. All boats and trains from infected districts are prohibited from entering the city, which remains healthy.

*Pascagoula, Miss.*—3 cases of yellow fever in shipping from New Orleans between the 1st and 5th inst.

*Cincinnati.*—From Aug. 28th to afternoon of Sept. 4th, 3 new cases of yellow fever and 2 deaths occurred among refugees.

*Bay St. Louis, Miss.*—One refugee arrived from New Orleans, Aug. 26th, with yellow fever, and was sent back to New Orleans the next day. No other cases.

*Mobile.*—City healthy. No yellow fever since the 1 death which occurred Aug. 31st.

*Key West.*—2 cases of yellow fever and 1 death during the week ending yesterday noon.

*Havana.*—74 deaths from yellow fever and 7 from small-pox during the week ending Aug. 31st.

*Matanzas, Cuba.*—During the fortnight ending Aug. 30th, there were no cases of yellow fever in the bay, and only a few cases on shore.

*Sagua la Grande, Cuba.*—Since the 16th of August there were 2 deaths from yellow fever, but at the date of advices, Aug. 28th, there were no cases in town or harbor.

*Calcutta.*—9 deaths from cholera and 26 from small-pox, week ending July 6th.

*Bombay.*—41 deaths from cholera and 6 from small-pox, week ending July 16th.

*Multras.*—6 deaths from cholera, week ending June 28th.

No official reports could be obtained from *Port Gibson, Miss.*, *Greenville, Miss.*, and *Brownsville, Tenn.*, where yellow fever is reported to exist.

Reports from other places indicate good health, including *Blount Spring, Ala.*, and *Calor Keyes, Fla.*, both erroneously reported, through the press, as having cases of yellow fever.

JOHN M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

**HELP FOR SOUTHERN PHYSICIANS.**—At a special meeting of the Medical Society of the County of New York, held at the College of Physicians and Surgeons, on Tuesday evening, Sept. 3d, it was voted that the officers of the Society be constituted a Committee of Ways and Means, for the purpose of raising a fund of money to be used for the relief of physicians and their families, who have suffered, or may suffer from the epidemic of yellow fever, now prevailing in Southern and Western cities. The Committee so constituted, calls, therefore, upon all physicians residing in this county, to forward to any of its members such sums as they may be pleased to contribute to this object. Donations of \$1.00 to \$5.00 will be acceptable (although much larger ones have been, and will be received), and the amounts will be acknowledged through the bulletin of the Society.

*Committee.*—John C. Peters, M.D., 83 Madison Avenue (*President*); Isaac E. Taylor, M.D., 7 East Thirty-sixth Street (*Vice-President*); A. E. M. Purdy, M.D., 288 Madison Avenue (*Recording Secretary*); F. A. Castle, M.D., 102 East Fifty-seventh Street (*Corresponding Secretary*); Horace P. Farnham, 36 West Fortieth Street (*Treasurer*).

The Medical Society of the County of Kings (N. Y.) has also taken the matter in hand, and subscriptions

can be sent to its President, Dr. Alexander Hutchins, 796 DeKalb Avenue, Brooklyn, N. Y.

**THE ROLL OF HONOR.**—At the suggestion of the President of the Medical Society of the County of New York, Dr. A. B. Judson, of the Committee of Neurology of said Society, has prepared the following list to date of September 8th, of Medical men who have died of yellow fever while ministering to the victims of the pestilence in the different stricken localities:

*Grenada, Miss.*—Aug. 19th, Dr. Milton and Dr. Hawkins. Sept. 1st, Dr. W. W. Hall, Dr. Hughes. Sept. 5th, Dr. Gillespie. Sept. 7th, Dr. E. J. Hughes. Sept. 13th, Dr. May.

*Memphis, Tenn.*—Aug. 21st, Dr. F. Sarnier. Aug. 25th, Dr. John C. Rogers. Aug. 28th, Dr. Hopson. Aug. 30th, Dr. K. T. Watson. Sept. 4th, Dr. W. R. Hodges. Sept. 7th, Dr. T. M. Dickinson. Sept. 8th, Dr. R. B. Williams, and Dr. Mead, a volunteer from Kentucky.

*Vicksburg, Miss.*—Aug. 28th, Dr. Booth. Sept. 6th, Dr. P. F. Whitehead.

*New Orleans, La.*—Sept. 2d, Dr. J. G. Byrne.

*Canton, Miss.*—Aug. 23d, Nathan McGee. Sept. 1st, Dr. M. J. McKee.

**THE PATHOLOGY OF YELLOW FEVER.**—The President of the Medical Society of the County of New York and the President of the New York Pathological Society have named a joint committee of five members of each society, which may be increased, to report at an early date upon the pathology of yellow fever. The committee will consist of Dr. Thomas E. Satterthwaite, Dr. Francis Delafield, Dr. J. W. S. Arnold, Dr. E. G. Janeway, Dr. Lewis A. Stimson, Dr. George F. Shrady, and others, to whom all communications on the subject from other members of the societies will be referred. The Committee on Hygiene of the Medical Society of the County of New York will probably be asked to co-operate with members of the Public Health Association, and of the Medico Legal Society, who are also members of the County Society, in their special sphere. The New York Therapeutical Society may also be asked to co-operate with the County Society in regard to the best modern treatment of yellow fever. The Committee on Necrology of the County Society have been requested to prepare a list of South-western physicians who have died at their posts. The Finance Committee of the County Society have been called upon to audit the accounts of the Committee on Ways and Means.

**EFFECT OF FARADIZATION IN A CASE OF HYDROPHOBIA.**—This case, which was reported to the *Académie des Sciences* by Dr. Bonley, was that of a young veterinary surgeon, who cut himself while performing an autopsy on a mad dog. The symptoms of hydrophobia appeared three weeks afterwards. Hypodermic injections and chloroform inhalations aggravated the spasms. Faradization was then resorted to, one electrode being placed on the nape of the neck and the other on the planta pedis. An immediate improvement ensued, and the patient regained the power to speak and to swallow fluids. As the continued use of the treatment was very painful, it was interrupted, but the spasms returned at once with all their former violence, and did not relax until the faradization was resumed. Finally, after two days of alternate exacerbations and remissions, the patient died suddenly of paralysis of the heart. Notwithstanding the unfavorable termination of the case, the sedative action of the current was sufficiently marked to warrant further trials.—*Deutsche Med. Wochen.*, No. 19.



## Original Lectures.

## CLINICAL LECTURE ON SOME PRACTICAL POINTS RELATING TO CATARRHAL PHTHISIS.

DELIVERED AT BELLEVUE HOSPITAL MEDICAL COLLEGE.

BY BEVERLEY ROBINSON, M.D.,

LECTURER UPON CLINICAL MEDICINE.

GENTLEMEN:—There are few subjects connected with medicine that it is more essential thoroughly to understand than catarrhal phthisis, and for this reason I am extremely glad to be able this afternoon to bring to your notice two typical cases of somewhat different forms of this disease, together with pathological specimens which fully illustrate what I shall have to say about its morbid anatomy. Before narrating my two cases permit me first to make some general remarks. In reference to the question of tubercle, its nature, origin, and growth, I have fully informed you in my preceding lecture on Acute Miliary Tuberculosis. To-day I have taken a topic of study which is perhaps less confused by the writings of authors, and can be more easily grasped by the mind of a beginner in medicine. Although the *precise* nature of pulmonary phthisis is still a matter of debate with medical practitioners, every one concedes that an inflammatory process enters largely into its essential march, and is a most important factor in the destruction of tissue which usually results from its presence. In considering tubercle, I have shown you how many theories stood juxtaposed, or antagonistic. In the interpretation of the anatomical facts pertaining to catarrhal phthisis of simple type there is less room for doubts and speculation. With respect to this variety of phthisis, it can safely and positively be affirmed there is nothing at all *specific* in its nature. It is undoubtedly an inflammatory change from the very start. And this inflammation, without regard to its amount or its stage, is catarrhal in character. The intensity of the inflammation, and the period at which it is arrived will, to a great degree, explain the differences of appearances met with in the lungs. Of course we must not neglect a due consideration of the constitution, natural or acquired, of the individual affected. And we have already seen in a previous lecture that a scrofulous constitution is without question a most powerful predisposing cause to cheesy infiltrations in lung-tissue, as elsewhere. Catarrhal phthisis is seated from its commencement in the cavities of the pulmonary alveoli. It affects principally the epithelial lining of the lung-cells, and is but a propagation of a similar catarrhal condition which began originally in the mucous membrane of the large bronchial tubes. This catarrh of the alveoli soon becomes chronic, has no tendency to resolve itself, and is only too prone to take on a cheesy condition (cheesy pneumonia). Frequently, the first evidence we have of the presence of a catarrhal condition of the lungs is in the upper lobes, and from there it gradually extends, and little by little implicates the whole pulmonary structure. One of its marked features is its chronicity; it does not appear to get entirely well, or if it does for a short time, it very rapidly recurs, and from a slight exciting cause. The inflammatory products are cellular in nature and are always very abundant—hence the almost constant desire to expectorate; at times it becomes difficult for the

patient to spit, and it is only after a severe paroxysm of cough that he is able to throw off from his lungs a tenacious pellet of thick mucus. When the inflammatory process has extended to the small bronchial tubes, these latter are apt to become clogged with hardened mucus which the efforts of the patient cannot remove. The result is that the inspired air cannot pass beyond these obstructions, and therefore cannot penetrate the air-cells. As we should expect, the air-cells of a certain number of lobules quickly collapse; there is a free desquamation of their epithelial lining, and their walls soon become notably thickened by a local hyperplasia of connective tissue. We shall not have long to wait, then, until a fatty metamorphosis of epithelial cells in the before collapsed lobules takes place, and afterwards cheesy nodules are seen. These cheesy nodules may be more or less large—more or less numerous. Usually, after each attack of acute bronchial catarrh some of them are formed. Recovery even after they are formed, is still possible, but you can readily appreciate that the chances of an ultimate favorable result decrease immensely as the process is permitted to implicate a more extensive area of lung-tissue. This it will of course do if bronchial attacks repeat themselves. Of course these nodules may soften, and when reduced to a semi-fluid state appear in the sputa of the patient; but once the softening process begun, lung-cavities are more likely to form and a rapid process of ulceration be engendered. Calcification and encapsulation, it is true, are not impossible, as many post-mortems show, but this is not to be relied upon.

If ulceration is set up, it is not long before the alveolar wall gives way and there is a communication with a bronchial tube. According to some authorities it would appear as if the celerity with which cheesy nodules become broken up and fluid was in very close relationship with their size and the rapidity with which they are produced. This is perhaps more a view of the mind than an actual fact. At all events, my personal experience does not enable me to be dogmatic in this regard. Unless the breaking-down process of the cheesy nodules be very rapid, we are tolerably sure to find an augmentation in the alveolar and interstitial connective tissue which separates the lobules one from another. This fibrous development, as you are aware, when excessive, gives its name to a particular kind of phthisis, which, you will remark, is very distinctly evident in the lung I hold in my hands. You will notice the striated and granulated appearance which it has, and also the large amount of local pigmentary deposit, which gives it a dark grayish coloration. The lung at this level is already of tough, almost leathery consistence, and I can make but little permanent impression upon it by moderate pressure. In other words, it does not tear easily. This fibrous tissue has a decided tendency to contract, and with such formations we may expect to find a certain amount of depression in the infra-clavicular spaces during life. You must understand, therefore, that fibrous phthisis may be, and frequently is, an accompaniment of catarrhal phthisis. The more acute in its march, however, the catarrhal form is, the less there is proportionately of this fibrous condition. And it is not rare to find extensive softening of cheesy nodules which have been formed very rapidly, surrounded by alveolar walls of almost normal thickness. With these preliminary remarks in regard to the pathology of catarrhal phthisis, and of which you have a specimen before your eyes, I will now briefly relate the two cases of patients who have come here this afternoon at my request.

CASE I.—F. M., printer, married, thirty-three years of age, born and resided always in New York city; came under my care, November 5, 1877, in the Outdoor Department of the New York Hospital. This patient took a severe cold nine months ago, and ever since has been suffering from cough, loss of strength, and insufficient nutrition. For several months past his sputa have been streaked with blood, and are abundant and of yellowish color. At times he perspires profusely in the early morning, when still in bed. He sleeps poorly on account of cough, and is becoming daily more anxious as he finds himself steadily growing weaker. He has literally no appetite at present, and what food he takes is swallowed with a feeling akin to loathing. Prior to the cold contracted nine months ago he enjoyed good health, and comes of a robust, healthy stock. At times, towards evening, his voice is hoarse and weak. During the forenoon it appears to him normal in strength and timbre.

Physical examination of chest reveals the following signs: prolonged expiration, harsh in character, under the right clavicle. At the same level in front, on the left side, there are jerking, feeble inspirations, and the expiratory sounds are almost inaudible. On the right side of the chest, both in front and behind, in the supra-clavicular fossa, crackling sounds are heard during cough. There is more dullness on percussion, at the right apex than at the left, as you perceive, and yet the tonality of sound is nowhere healthy, but indicates diminished normal resonance. Vocal resonance is about the same on both sides in the infra-clavicular spaces, and not sufficiently abnormal to strengthen much our opinion as to the condition of the lung-tissue beneath. The chest-movements are certainly much restricted in amplitude, while the abdominal elevations are excessive. I find the heart normal. When my patient is tranquil he suffers but little from dyspnoea; but let him attempt even moderate exercise, and immediately the alae of the nose indicate the dyspnoea, to which he may become subject at any moment. This man has taken dessertspoonful doses of Churchill's syrup of the hypophosphites of lime and soda four times daily pretty constantly during more than four months, and made use of tincture of iodine as a counter irritant externally. As you will remark farther on, he appears to have received some benefit from this medication.

Towards the latter part of November my patient was greatly annoyed with increased frequency in the appearance of blood in his sputa. To remedy this symptom I prescribed small doses of the fluid extract of ergot, and in a few days sanguineous expectoration came to an end.

During the second week of December, the night-sweats became more profuse and distressing, but fortunately I was able to control them at that time, and on several occasions since, by grt. v.-x. of tincture of belladonna, to be taken at bed-time; so soon as this dose was increased the eyes became weak (dilatation of pupils).

On Dec. 26th I made a second physical examination of his chest, and found the signs of phthisis at the second stage somewhat improved, though I was still able to recognize crackling sounds in the supra-spinous fossa on the right side, at the end of a strong effort of cough.

March 6th.—The sputa are whitish.

March 25th.—Slight diarrhoea; extreme weakness; the cream and whiskey ordered a week ago has taken away completely what little appetite still remained. I therefore ordered him to stop it and to try small

doses of cod liver oil with the hypophosphites, instead of the syrup of Churchill alone. The two most distressing symptoms now are shortness of breath and anorexia to the point of loathing for food.

Now, gentlemen, let us review together a few points of this history and dwell upon their practical import. The diagnosis of the case should evidently be entarrhial phthisis, and the affection in the instance before us has arrived at its second stage at the right apex. It commenced, as such cases too often do, with the symptoms of an ordinary cold, and this cold, somewhat neglected, or badly treated at first, led finally to cheesy consolidation, and then to softening and breaking down of lung-tissue. The first point to which your attention is directed is the man's profession. He is a printer by trade, and has, therefore, led rather a sedentary life and lived in anything but a healthful atmosphere. His diet and lodging appear to be good, but he frequently worked all night and fatigued himself beyond his strength. Even when he had contracted a severe cold he did not lay by as he should, but continued persistently to work. Here then are sufficient causes taken together, to establish an acquired predisposition to phthisis. There is no necessity to inquire rigidly into his family antecedents in order to make this development possible; and as a matter of fact, when we do so, we find it very clear and satisfactory. The patient's father and mother both died at an age past middle life, and from causes wholly foreign to the disease we are now studying. His sisters are all full-grown women, who enjoy excellent health. Hereditary influences can scarcely, therefore, be invoked, and the man's personal history prior to his cold could not excite uneasiness apart from his injurious trade. I would recommend you in strong terms to make use of small doses of ergot in these cases, to arrest spitting of blood, and more abundant hemorrhage too, if it unfortunately takes place. The remedy is innocent, and may be given in large doses, if required, without fear. I have seen it succeed in arresting abundant hemorrhage from the respiratory tract, when other remedies had signally failed. You may then give as much as a drachm at a dose, and repeat it several times in a few hours, if the case is urgent. Meanwhile let the patient suck and swallow constantly small pieces of cracked ice.

To arrest the night-sweats, I know of nothing preferable to the tincture of belladonna given internally up to the point of toleration. If you wish to vary the form of this medication, you may try hypodermic injections of the sulphate of atropine, commencing with one one-hundredth of a grain at bed-time. This is certainly a most effectual remedy, and, as you have remarked in a previous lecture, the one relied upon by Dr. Anderson in the profuse perspirations of acute miliary tuberculosis. *A fortiori*, if atropine will arrest perspirations effectually in the latter case, we may have little doubt that it will accomplish the desired object in the former. I would also advise you to try, if belladonna and atropine fail in their effects, the dilute or aromatic sulphuric acid, in fairly large doses and given in the acid infusion of roses as an attractive menstruum. Beware, however, of disastrous action upon the enamel of the teeth, and let the patient take this last-named dose through a glass tube. The mouth should also be thoroughly rinsed after swallowing each dose. There is another remedy, whose action has been vaunted and extensively tried in arresting the night-sweats of phthisis: This is the sulphate of quinine, the actual panacea of so many ills. Now, gentlemen, while I wish you to use all innocent means at your command to arrest un-



pleasant symptoms of disease, I do not wish you to rely upon uncertain ones—and in my experience, quinine does not arrest night-sweats in phthisis; no more does it effect this result upon sweating resulting from bodily weakness due to other causes. How are you to treat the cough of phthisical patients? It is oftentimes a difficult question. Do not give opiates, however, until you are absolutely compelled. Other remedies soothe the cough quite as well in the beginning, and do not destroy the appetite and weaken the digestion to anything like the same degree. Try chlorodyne first of all. It is a proprietary remedy, I am aware, and as such deserves our reproach; but is certainly an admirable one, and will do more for the cough of phthisical patients than any other anodyne with which I am familiar. It contains morphine, but I rather suspect its essential action is due to the chloroform and prussic acid among its numerous ingredients. Give it in doses of x. to xx. drops *pro re nata*. For several months, both in the Out-door Department of the New York Hospital, at Charity Hospital, and elsewhere, I have given dessert-spoonful doses of the *mistura creasoti* of our pharmacopœia, to lessen the quantity of sputa in phthisis. I am very much pleased with this remedy, and believe it merits a very extensive trial. No doubt, in lessening the abundance of expectoration, it also diminishes the frequency of cough. I owe my employment of this remedy to Dr. Bouchard, of Paris, who has used creasote with good effect in the treatment of phthisis. Dr. B.'s observations were judiciously made in his hospital practice, and are recorded in one of the late foreign medical publications. I have tried to help my patient's appetite in different ways.

Everything has failed me, even the tincture of nuxvomica, upon which I usually place most reliance. As a counter-irritant to the chest, I have used tincture of iodine. I believe it is a good local remedy, but I also believe part of its beneficial action is due to its effects upon the respiratory tract by inhalation. You know that iodine is volatile, and in this way becomes a modifying agent of considerable value in all chronic affections of the bronchial tubes. I first learned its use in a solid form from Prof. Piorry, of Paris, the inventor of the plessimeter, who often ordered metallic iodine to be placed in an open vial at the patient's bedside during the hours of sleep. If the vapors become too irritating and excite cough, the vial should be closed with a stopper. If not, it may be permitted to remain open throughout the night and the patient will inhale the fumes, which are unquestionably useful in many cases. In the tincture of iodine I consider the alcohol objectionable. There is a remedy which acts more severely than iodine, but which is certainly a capital counter-irritant. The one I refer to is the emplastr. thapsia. It is not much employed in our country, but will, I trust, become by and by more generally known and used. When a thapsia plaster is applied, be careful *not* to put it too near the neck, and after applying it wash the hands thoroughly. Thapsia is volatile, and may cause red blotches on the neck and face, which are temporarily disfiguring, if these precautions be ignored. The plaster should be applied at night and allowed to remain from eight to twelve hours, according to the delicacy of the patient's skin: after the expiration of this time it raises a myriad of milary vesicles upon the skin in the place where it was applied. If itching result, it may be allayed by smearing the surface with almond oil. Thapsia is not a cause of *permanent* disfigurement, as croton oil or tartar emetic are when applied locally, and it is not so painful in its

action as mustard or cantharides. In concluding these somewhat elementary, but practical remarks, let me insist before you upon the great value of Churchill's hypophosphites of lime, soda and potash. In my hands they have done really good work, and I can scarcely recommend their use too strongly; they are indeed in the treatment of catarrhal phthisis the most efficient remedy I know of. You will find, however, upon reference to Dr. Churchill's original pamphlet, published many years since, that he considers the *manner* in which they are prepared of primary importance, and on this account they should only be purchased at a drug store of high repute. Dr. Churchill advises them to be given in doses of ten grains in half a teacupful of milk upon rising in the morning. Whenever I have been able I have adopted this way of prescribing them. I regret, gentlemen, time will not permit me to detail my other case, which is also one of catarrhal phthisis. Unlike the first one narrated, it took its origin in an attack of acute lobar pneumonia, and now the whole upper lobe on the right side offers distinct signs of cheesy consolidation, already softening in certain points. The treatment will be almost similar in the two cases, although in the second case I shall prefer to use a succession of camphorated fly-blisters locally, rather than the tincture of iodine. The camphor sprinkled over the cantharides makes its effects innocuous, as regards the kidneys and bladder.

## CLINICAL LECTURE

DELIVERED AT THE UNIVERSITY HOSPITAL,

By HORATIO C. WOOD, JR., A.M., M.D.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, AND CLINICAL PROFESSOR OF NERVOUS DISEASES, IN THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.

I. *Tumor of the Brain.*

II. *The Multiple Spinal Scleroses.*

[Reported for THE MEDICAL RECORD.]

### TUMOR OF THE BRAIN.

S. D., 29 years of age, colored. I can elicit nothing reliable with regard to his previous history. He has been fairly intelligent until within the past year or so, when very marked evidences of mental deterioration appeared. At present his mind is much weakened, he is nearly totally blind, has persistent and excruciating headaches, and has lost his muscular power entirely. The loss of power is general. There is no local palsy. He vomits whenever he tries to move about in bed. He did not begin to suffer from pain in his head until quite recently. The pain starts in his forehead and darts round towards his ears. He also complains of pain low down in his neck. He has never, he says, received a sunstroke, and has never upon any occasion lost consciousness. Meningitis very frequently follows sunstroke, and may amount in time to a chronic cerebritis; but it is, as a general thing, entirely curable. There may have possibly been an attack of sunstroke, but all the facts of the case are opposed to the supposition. He never had any fit until after the inception of the severer symptoms. The blindness came on slowly, first appearing after a convulsion. His bowels are obstinately constipated, and he has lost his sexual impulses altogether; says, in fact, that they never were very strongly developed. There is very marked choking of the discs. This symptom, in the majority of cases, proves the existence of intracranial pressure, and yet I have

upon several occasions myself seen choked discs where there was no sign of cerebral disease. Though a presumptive evidence, therefore, it cannot be considered proof absolute. It is, indeed, not invariably present in cases of cerebral tumor.

All the symptoms in this case—the persistent paroxysms of headache, the blindness, and the excessive vomiting—point towards the existence of a cerebral tumor. Persistent headache, for instance, is a proof that we have either meningitis or a cerebral tumor to deal with. As regards the diagnosis between these two conditions, the headache consequent upon the irritation of a cerebral tumor is generally more severe than in the case of meningitis. In the former disease there is sometimes a fixed local pain at the seat of the tumor. This characteristic, fixed pain is rare, however. There is usually, as here, deeply-seated pain in the forehead and neck.

With regard to the blindness: What does it mean? Tumors of the brain are often associated with blindness. Ferrier places the seat of vision in the large convolution on the top of the first cerebral convolution. Destruction of this brain-substance on one side, according to the above authority, causes loss of vision in the other eye. Ultimately, however, one side is able to replace the other and perform the functions of both. There is no doubt that the corpora quadrigemina are connected with the function of sight. They are not, however, centres of visual consciousness. The visual impression is probably received and elaborated at the points of Ferrier, mentioned above. One is guided, no doubt, in reading a book, by the reflex impression from the corpora quadrigemina; but this reflex act takes place without any mental perception of the same.

Disease of the cerebellum is quite frequently associated with loss of sight. The blindness in this case may be because the cerebellum is crowded down by the pressure of the tumor upon the corpora quadrigemina. As each optic nerve supplies the inner half of one eye and the outer half of the other, paralysis of the visual centre, through pressure on the cerebellum or optic nerves, may cause blindness. The upper visual centre (in the large convolution on top of the cerebral convolution) is probably in the same position first in the human brain as in that of the monkey.

In this instance the lesion is most probably not near the corpora quadrigemina. There is scarcely room for the growth of a tumor in the corpora quadrigemina without its causing pressure upon the medulla oblongata, and so producing local paralysis, which is not present in this case. The next possible situation for a tumor is in the cerebellum. What symptoms have we here of cerebellar pressure? The excessive vomiting, the persistent headache, the staggering gait, are all symptoms pointing to a cerebellar origin of the tumor. In some rare cases of cerebellar tumor there is complete sexual palsy. This is present here to a very marked degree. In other cases of the same disease there is no disorder of the sexual function. The disturbance of sexuality probably occurs in those cases in which the middle cerebellar lobe is the seat of the tumor.

The general loss of muscular power (the man has been confined to bed and entirely unable to walk for a long while) points strongly to the cerebellum as the seat of the disease. When the cerebellum is removed in the lower animals, there is general loss of muscular strength. The blindness may be due, possibly, not to the lesion of the brain, but to some peripheral nerve-lesion. Optic neuritis is very often the cause of blindness. We cannot make out by means of the ophthalmoscope how far the optic nerves have

lost their power of visual conduction in the present instance. The outer appearances, too, cannot always be regarded as an accurate measure of the loss of power. The choking of the discs is very decided here. The blindness may be peripheral, but the cerebellar symptoms give me great reason to think that the blindness is central in origin.

The exact determination of the position of a cerebral tumor is sometimes exceedingly difficult. In some instances the sole symptom of the presence of the tumor in the cerebellum is the persistent vomiting. It is easy generally to determine whether vomiting is gastric or cerebral. Position very rarely affects vomiting of gastric origin, whereas, if the vomiting be of cerebral origin, the least change of position is liable to bring on the most painful retching. This man cannot be lifted up into a sitting posture in bed without bringing on attempt at vomiting. When he tries to sit up himself, he vomits profusely. Straining at stool also gives rise to spells of vomiting. There are periods at which his vomiting is much more exhausting and excessive. Sometimes these spells bring him so low that he seems to be at the point of death. The cause of these exacerbations is, no doubt, the temporary attacks of congestion of the brain. Raising the man so disturbs the circulation as to increase his pain and bring on these acute attacks of vomiting. The slightest irritation of the liver or the stomach will upset the balance of the circulation.

Death will no doubt take place during one of these temporary congestions. As regards treatment, we have tried an antisyphilitic course of treatment, but without the slightest beneficial effect. I do not think that there is any history of syphilis in the case. It is needless to say that the prognosis is unfavorable to the last degree. In some rare cases the tumor ceases to grow for a while, and the patient remains in the same condition, unchanged for better or worse, for a longer or shorter period of time; but as a general thing the disease advances rapidly to a fatal termination.

#### THE MULTIPLE SCLEROSSES.

CASE I.—The patient, a lumberman by trade, and married, enjoyed good health until some five years ago, when he noticed some stiffness in the muscles of his legs, and gradually began to lose power in his left leg. One year ago his right leg also became affected. His appetite and general health at present are good. He has been a hard-drinking man for the past twenty-five years. He gets tired very easily—has not been able to do any work since last November (1877). There is no pain in his legs.

Is this spinal or cerebral disease? Evidently spinal, because only the lower limbs are affected. In cerebral disease affecting the limbs there is generally hemiplegia or entire palsy of all the limbs. I have never seen a case of cerebral paraplegia.

There is no headache, no irritability of disposition, and no loss of memory here. The case is chronic, and not acute. It is in all probability a form of chronic inflammation of the cord. Tumor of the cord is exceedingly rare, and, moreover, the symptoms in this case are not those of spinal tumor.

This may be a condition following excessive venery. In spinal exhaustion from excessive venery there is a progressive loss of power without spasm. In cases of chronic inflammation of the cord the inflammation may attack either the cord itself, or its membranes. Is this a case of spinal meningitis, or of inflammation of the cord itself? The meninges of the cord are comparatively devoid of sensation. In spinal menin-



gits the outside of the membrane is affected. Spinal meningitis makes itself felt in the nerve-roots. Paralysis is not necessarily one of the symptoms of spinal meningitis. Here there is permanent contraction of the muscles, as in spinal meningitis, but there is no complaint of pain. This is evidently not a case of spinal meningitis. Other than the above disease there is but one form of inflammation of the cord, and that is sclerosis—generally multiple sclerosis. There is, indeed, a subacute form of spinal meningitis which runs through its course in a few months, but this is plainly not that condition.

Sclerosis is a chronic inflammation of the neuroglia. Multiple sclerosis occurs in little spots, or nodules, and may affect the brain alone, or the cord alone, or both brain and cord. There are consequently three forms of multiple sclerosis, cerebral, spinal, and cerebro-spinal. Multiple cerebral sclerosis is comparatively rare, and its symptoms very obscure. It usually begins with severe, irregular pains in the head; paralysis and tremors, with epileptiform attacks and marked mental deterioration, failure of memory, etc. The most common symptoms are loss of power with tremors. The severer symptoms are only marked in rare cases. In multiple cerebro-spinal sclerosis, the tremors are at first only excited by voluntary movement, but finally they become persistent. Where the spine only is affected, according to some authorities there are no tremors. Where the brain only is affected, the tremors are constant. There is always palsy in all of the three forms; incomplete at first, but gradually producing entire loss of power. In the spinal form the palsy is the main symptom. In many cases there are periodic convulsive movements of the limbs. In multiple spinal sclerosis the symptoms become more and more severe, finally tonic contractions of the muscles of the hands and legs supervene. Cases such as the above, though obscure, will sometimes come to your notice. Multiple spinal sclerosis may affect either the anterior or posterior columns of the cord.

The etiology of the multiple sclerosis is exceedingly obscure. In some instances they are brought on by exposure to wet and cold. In many reported cases the inception of the disorder dates back to some mental strain or overwork. I have never heard of a case brought on by syphilis. Such an origin is easily possible, however.

This case is interesting because of the total absence of tremors. Hammond states that he never knew of the occurrence of tremors where the spinal cord alone was affected (*i. e.*, tremors excited by attempts at voluntary movements). Here the trouble is purely spinal. Multiple spinal sclerosis generally runs a very protracted course. This is an excellent type of the disease. Progressive loss of power and persistent rigidity are the two most pathognomonic symptoms. This man cannot walk at all over rough roads. It is a great effort to him when he attempts to raise his foot. A time will come, unless the disease is stopped, when it will be impossible for him to raise his feet.

In most cases of multiple spinal sclerosis some one group of muscles is affected more than others. All the muscles, however, become in time affected. In *abes dorsalis* and locomotor ataxia the genital function is affected. In this disease it is not. The sensory portion of the cord is generally also affected. Here there is entire absence of pain. The pains are never so severe as those of locomotor ataxia.

As regards the causes of the disease, as I said above, we have no accurate knowledge. Exposure, excessive use of alcoholic stimulants, and syphilis may, any of them, produce the disease.

Treatment does little or no good. Some authorities use ergot in the early stages, but I have never seen ergot have any effect whatsoever. The actual cautery may do good in very early stages. Dr. Hammond claims some good results from the administration of fifteen drops of the chloride of barium thrice daily. He also recommends the use of the tincture of hyoseyamus; but neither of these remedies have had any effect whatever in my hands. The galvanic current may be employed, but usually fails utterly to produce any good result.

The case to which I have just directed your attention is one of multiple spinal sclerosis. I am also able to show you to-day cases illustrating the two other forms of multiple sclerosis.

CASE II.—R. Mc., born in Ireland, dates the beginning of his disease back to 1875, when he overstrained his wrist in piling bricks. Immediately after that time the part began to tremble, and in one year the whole limb was involved. He was admitted to the wards in March, 1878. A few months ago the tremors extended to his whole body. These tremors are constant, and are very much aggravated by any excitement, or the least physical exertion. In this case there was palsy of the right arm before the appearance of the tremors. (This order, however, is very frequently reversed.) The patient generally has a bad headache when he gets up in the morning, and is very easily fatigued. There is no failure of memory as yet, and his eyesight is not affected. In some cases there is constant twitching of the eyelids. I cannot say positively whether or not this man has tremors while asleep. He has no difficulty in walking up and down stairs; can go down-stairs without the assistance of the baluster. There is no festination in this case. It is an example of multiple cerebral sclerosis in which the tremors are constant. This man, unfortunately, is beyond all treatment. The disease was evidently brought on by exposure.

CASE III.—A sailor, of middle age, a German by birth. Has had syphilis and gonorrhœa frequently. First noticed the tremors one very rough day at sea, when he was in the rigging. The tremors are only excited by physical exertions, such as walking, etc. (In neither of the cases has there been any trouble with the bladder.) This man has festination very markedly. He says he feels as if some one were constantly pushing him forward as he walks; he has a continual, irresistible tendency to go forward until he gets into a regular run. He can go upstairs alone, but in going down-stairs he has to take hold of the baluster to keep himself from falling. This is a case of multiple cerebro-spinal sclerosis. It presents, as you have no doubt noticed, many of the symptoms of locomotor ataxia. The disease in this case is no doubt the result of constitutional syphilis.

TREATMENT OF TRICHIINOSIS.—In the treatment of this infection, Dr. Rhode administers a subcutaneous injection of morphia at night, because he has observed that the morning remission in the fever is much greater when the patient has passed a quiet night. He also uses laxatives. In one case in which he prescribed a one per cent. solution of ergotine (a teaspoonful every hour) on account of excessive epistaxis, he was surprised by the rapidity with which the symptoms produced by the trichinae disappeared. Further trials of the drug in other cases have confirmed his opinion as to its favorable action on the course of the fever and of the disease in general. As much as two drachms of ergotine have been used in one case.—*Centralblatt f. d. Med. Wissen.*, No. 17.

## Original Communications.

### A NEW METHOD OF HASTENING THE SUPPURATION OF ACUTE AND STRUMOUS (COLD) ABSCESES.

By A. D. ROCKWELL, M.D.,

ELECTRO-THERAPIST TO THE N. Y. STATE WOMAN'S HOSPITAL.

NEITHER in published volumes nor journal articles have I observed any reference to the power of electricity, externally applied, to develop and hasten the suppurative process.

I do not, of course, refer to the development of suppuration in healthy tissue.

Electricity, except when applied especially for electrolytic effects by means of needles, has no such destructive tendency: on the contrary, it will, as is well known, frequently abort developing inflammations and small abscesses, such as stytes, etc.

I refer not only to the power of the electric current to hasten the development of the ordinary phlegmonous or acute abscess, but also to excite and fully develop the arrested process of suppuration in strumous or so-called cold abscesses.

During the past ten years there have fallen under my observation a sufficient number of such cases to convince me that the effects to which I have alluded can be quite readily and uniformly obtained, and must therefore be of interest to every physician and surgeon. In regard to the current best adapted for the purpose under consideration, I have no hesitation in designating the faradic, on the grounds both of observed clinical results, and of the physical, physiological, and other distinctions in the action of the two currents, galvanic and faradic.

Electricity, in passing through living tissue, exerts effects of a four-fold character, viz.: physiological, chemical, physical, and mechanical, and it is probable that all of these effects enter more or less as factors in increasing the activity of the suppurative process. The physiological effects take place by virtue alone of the vital properties of the tissues, and, in the case of cold abscesses at least, with their low order of vitality must be very indifferently manifest. The chemical or electrolytic effects are especially the result of galvanic action, and ought to exert considerable influence in hastening suppuration. By external applications, however, but little of this influence can be observed. The physical effects, viz., the production of heat and the modification of endosmose and exosmose, and the transference of substances from one pole to the other, while more marked in the use of the galvanic current, are yet sufficiently decided after an application of the faradic.

The mechanical effects, however, exert a far more potent influence in hastening suppuration than all the others, and these effects are more markedly appreciated under the faradic current. The reason is clear from its nature. "It is a current of alternation, of to and fro motion, of constant closing and breaking. When it passes through the body, even when it produces no appreciable muscular contractions, it acts very much in the same way as gentle tapping or pounding or rubbing on the tissues; and this gives passive exercise to all the deeper-lying as well as the superficial tissues. We may believe that the molecules of the tissues are agitated by the passage of the current, as the particles of a bar of iron are moved by

the influence of magnetization, or as bodies are expanded by heat." \* The numerous branch currents going to and fro act as so many shuttlecocks, keeping every atom in incessant disturbance.

Now, while it is by virtue, in part, of these phenomena that we obtain tonic and restorative effects in ordinarily vitalized tissue, we can readily understand how, when acting on parts where the destructive process has begun, they may act as an excitant and very materially accelerate the breaking down of tissue and the consequent formation of pus. The case which first suggested this method of utilizing electricity occurred in the person of a Mr. R., aged 35, directed to me in 1867, by the late Dr. H. H. Gregory, for the relief of a supposed severe and persistent lumbago. The patient presented an exceedingly haggard and emaciated appearance, and was so weak that he could with difficulty walk without support. He had been suffering pain more or less severe in the lumbar region for several months, and had gradually grown thinner and weaker. A few local applications of the faradic current failed to afford the slightest relief: on the contrary, the pain was somewhat aggravated, and on examining carefully I observed a slight swelling that had appeared since the beginning of treatment, together with a well-marked reddish tinge of the surface.

Because of these symptoms, as well as of the failure of the electricity in any way to relieve the pain, and the profound constitutional disturbance out of all proportion to a mere local rheumatic attack, I suggested the probability of extensive suppuration, and advised him to see Dr. Wm. H. Van Buren, who confirmed the diagnosis and directed him to go immediately to his home in Elizabeth, N. J., since the necessary operation would not be altogether devoid of danger. The lancing was performed by Dr. Green of that city, and I am informed that the abscess discharged a quart, more or less. For the first twenty-four hours during and after the evacuation of the pus, the patient was with difficulty sustained by the free use of various forms of stimulants. This case alone would not of course be conclusive evidence of the instrumentality of the electricity in rapidly hastening the suppurative process; but the patient, whose strength was failing with alarming rapidity, always attributed his salvation to the fact that his true condition was discovered without further delay, and before he had quite lost all strength and recuperative energy. In a number of additional cases of phlegmonous abscesses I have had occasion subsequently to verify the idea suggested by the above, and notably in several cases of slowly developing abscesses of the mammae and tonsils. In the case of a friend who was a victim to frequent attacks of tonsillitis, the applications proved remarkably and most gratefully efficacious.

For years these attacks had occurred once or twice every winter, and by no treatment had it been possible to abort the inflammation short of suppuration. Pus formed slowly, and it was usually ten days before the abscess broke. Soon after the beginning of one of these attacks, the faradic current was applied for some ten or fifteen minutes, and repeated every day. Pus formed rapidly, and in five days from the beginning of the stage of irritation the abscess broke, shortening the time of the patient's confinement to the house one-half. In subsequent attacks this experience was repeated.

Turning attention now to the strumous or so-called

\* Medical and Surgical Electricity, 2d Edition, p. 189, Beard & Rockwell.



cold form of abscess, I have to present a case which cannot fail to be of additional practical interest.

Mr. R. C., aged about 30, a patient of Dr. S. T. Hubbard, was sent to me in November, 1876. I found a tumor about the size of an orange, situated on the right side of the neck, partially under the body of the sterno-cleido-mastoideus muscle. In 1869 he had received a severe strain while rowing in a college regatta, and soon after, this unsightly enlargement made its appearance. He had been under the care of Dr. Sieveking, of London, and afterwards of Dr. Piersons, of Orange, N. J., who had used the galvanic current (external applications).

Supposing (with the others whom he had consulted) that it was either a solid enlargement or an ordinary cyst, I proposed electrolysis; but in view of the fact that the patient thought it had decreased a little in size under galvanization as used by Dr. Piersons, and desired a continuance of the trial, the introduction of the needles was postponed. I alternated faradic with galvanic applications, and in about two weeks, instead of observing a decrease in size, or, as I had expected, no change whatever, the growth appeared perceptibly larger. It was evident to my mind that pus was forming, and on the following day the late Dr. A. B. Crosby, who saw the patient with me, introduced a small trocar, which on withdrawal showed a slight but sufficient trace of pus. I continued the applications several weeks longer, the enlargement gradually increasing and growing more sensitive until it was pronounced quite ready for an operation. Etherizing the patient, Prof. Crosby made a free incision, perhaps four inches in length, down to the cyst-wall, or, as it is technically called, the pyogenic membrane. This wall is said to increase in density with age, varying from the eighth of a line to an eighth of an inch in thickness. In this case the membrane was fully an eighth of an inch thick, exceedingly vascular, and of such a consistence that the knife could with difficulty penetrate it.

The discharge of pus was very great, probably half a tumblerful or more.

The usual after-surgical treatment was employed, and after the healing of the wound no trace of an enlargement was visible, and to this date the patient has had no further trouble.

Without attempting to compare the relative merits of electrical applications and the ordinary poultice in acute surface abscesses, it is evident that the first method is a useful therapeutical addition in dealing with abscesses that are not readily accessible. In strumous or cold abscesses, however, I know of no substitute for it of equal efficiency, and the results obtained in the case last cited very clearly demonstrates its value.

46 EAST THIRTY-FIRST STREET.

## PLEURISY IN CHILDREN.

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PLEURISY occurring in children, notwithstanding the progress that has of late years been made in pediatrics, is a disease that is daily overlooked or misinterpreted by the general practitioner. It is an affection that is easily confounded with either croupous pneumonia or fibroid degeneration of the lungs, and it is too frequently treated for either dentition, intestinal worms, continued fever, meningitis, or peritonitis. All of

these affections have been supposed to exist, when in reality a pleurisy with effusion was present. This fault is due to two facts: first, an unpardonable carelessness in the manner of examining patients, and secondly, to the want of a proper appreciation of the physical signs and symptoms of the disease.

There are certain physical signs and symptoms connected with pleurisy occurring in children, similar to those found in the pleurisy of adults, but there are many other and important ones entirely different, and which in themselves often vary considerably, that furnish a key to the recognition of pleurisy in children.

Pleurisy occurs in children either as a primary idiopathic disease or as a secondary affection to certain diseases, as pneumonia, scarlatina, tuberculosis, pertussis, measles, and small-pox. It has also occurred as the result of an injury to the chest-walls. Formerly it was considered rare under five years of age, the primary form rarer than the secondary; but, with improved methods of diagnosis, it is now regarded as a question whether it does not occur more frequently at a much earlier age than we were aware. There is no doubt but that many cases of acute idiopathic pleurisy with slight effusion occur in young children, where recovery is spontaneous.

The main object of this article is to discuss the differential diagnosis of pleurisy in children. For this purpose it will be necessary, in the first place, to describe the physical signs and symptoms of the disease.

A child is suddenly taken ill with a rigor, or, if very young, possibly a convulsion, followed by a variable degree of fever, the temperature rising to 103° F., or even 105° F. The heat of the skin is not pungent, and the fever seldom lasts longer than three or four days, when it declines gradually. There may be severe headache, with delirium, and if the right side is affected, vomiting of bilious matter, with perhaps purging. The respiration is hurried, shallow, and jerky, the latter quality being more marked in the first stage. The pulse-respiration ratio rarely falls below three to one. Pain is complained of in the side, or more often the case, in the abdomen. It is confined to one spot, and may persist until absorption occurs. The pain is referred to the abdomen, because the lower intercostal nerves that are affected send branches to supply the abdominal walls. The pain is increased by coughing or upon taking a deep breath, which is shown in the face of older children by an expression of distress, and in very young ones by a prolonged spell of crying. There is also tenderness of the chest-walls, which is elicited in older children upon percussion, and in younger ones upon movement or lifting. There is usually a frequent, short, dry cough which the child tries to repress on account of the pain it causes. This cough may sometimes be so slight as not to be noticed, or else may be attributed to reflex causes. The child seldom appears very sick, and the strength is very little or not at all reduced.

The movement of the affected side is less free than the sound side from the onset. This is due in the first stage to the avoidance of pain, and later on, to a lack of expansion from pressure of the effusion. The intercostal spaces are not, however, always motionless. There is often an apparent deep recession of the lower intercostal spaces, which is nothing more than the action of the digitations of the serratus magnus muscle, lifting up the parts beneath. If the effusion is extensive, the chest-wall of the affected side becomes flattened laterally so as to assume a square shape.

On auscultation the respiratory murmur is feeble,

especially at the base of the affected side, and may be accompanied or not with crepitant râles. These crepitant râles are the friction-sounds in children and are similar in character to the râles of the smaller bronchial tubes as heard in adults. They are superficial, heard during the entire inspiratory act, and may persist even after extensive effusion has occurred. They may be heard over the entire dull area. They are sometimes heard only at the decline of the attack, and in other cases not at all, owing to an early adhesion of the pleural surfaces. Bronchial breathing may be heard from the very first, or it may be present one day and not the next. It usually occurs about the second or third day of the attack. It is best detected near the spinal column at the posterior upper limit of dullness. Tubular or even cavernous breathing is commonly heard in the axillary and infra-axillary regions. It may even be heard at the extreme base of the affected side. Both tubular or bronchial breathing may be heard over the same spot where a crepitant friction râle is heard.

Vocal resonance is exaggerated and may be bronchophonic or slightly argophonic. It may be suppressed over a spot where the breathing is bronchial or tubular. It is best detected at the upper limit of dullness in the interscapular space.

The vocal fremitus is indistinct, but not always absent. It may be present even with extensive effusion. In very young children the alteration of the vocal resonance and fremitus is for various reasons unreliable. All of the auscultatory signs are altered on change of position.

Dullness is complete where effusion has occurred, and extends to the front, being there lower than in the back. Before effusion of any extent occurs, the resonance of the affected side is impaired, and the note is of a high pitch. The dullness is accompanied with a *sense of great resistance* imparted to the finger. The limit of dullness is *abruptly marked*, being sharper defined anteriorly than in the back. When the effusion extends above the angle of the scapula, there is a tubular note produced in front below the clavicle. It occasionally occurs that the percussion note has a tympanitic quality, where there is a thin layer of fluid between the lung and a thin chest-wall. Here the use of auscultatory percussion will render the dullness more distinct.

There is a movability of the dullness on change of position, which is best detected, in cases of large effusion, after absorption has begun. "In rare cases, dullness with great resistance, together with feeble respiratory murmur on the affected side, may be the only physical signs to indicate the early stage of a pleurisy in children." (West).

When the effusion is very large, the heart is liable to be displaced either to the right or left, according to the side affected; but it may be displaced to the left even when the effusion is on the same side. This is owing to adhesions existing between the pleura and pericardium, as pointed out by Eustace Smith. The heart is also forced below the xyphoid cartilage when extensive effusion occurs in the left pleural cavity. An effusion of the left side may depress the spleen, and on the right side the liver.

The measurement of the affected side will be greater than the sound side during the first ten days or two weeks, but equal afterwards, owing to the greater expansion of the sound side from doing double duty. After absorption, the affected side may contract, where the effusion has been large, and a deformity of the spine exist, both of which disappear in the course of time.

In distinguishing pleurisy from dentition, worms, typhoid fever, meningitis, or peritonitis, a correct diagnosis cannot be obtained without a thorough examination of the thorax has first been made. The slight cough alone should attract the suspicions of the attending physician sufficiently to warrant a thoracic examination. The headache, fever, abdominal pain, and, when the pleurisy is diaphragmatic, purging with abdominal tenderness, also, as I have observed in one case, epistaxis, might lead to the suspicion of either a commencing typhoid fever, or peritonitis. The headache with delirium and vomiting might suggest meningitis, for which I have seen two cases treated. In all such cases a careful thoracic examination should never be omitted before arriving at a diagnosis.

Pleurisy is more frequently mistaken for croupous pneumonia than any other disease, and not without good cause, as the distinction is sometimes very difficult to be made. More particularly is this the case when the pleurisy is secondary, or, if primary, a double one. Fortunately, the treatment of the early stage does not differ materially for either disease, but where the pleurisy is secondary to scarlatina, for instance, it is important to be able to recognize an effusion early, as it rapidly increases and becomes purulent, and may suddenly destroy life.

Scarlatina is rarely followed by pneumonia, while measles is more rarely followed by pleurisy. The feebleness of the respiratory murmur, which may previously have existed in such cases, first on one side, and then upon the other, together with bronchial breathing and a flat dullness extending to the front, will point to pleurisy rather than to pneumonia (West).

In distinguishing pleurisy with effusion from croupous pneumonia, it must be remembered that the general symptoms of the former are mild as compared with those of the latter. There is greater prostration, flushing of the cheeks, and dilatation of the nostrils in croupous pneumonia than in pleurisy. The skin is dry, and the heat pungent in croupous pneumonia; in pleurisy it is the opposite. The temperature falls suddenly in the first and gradually in the latter. The dullness in croupous pneumonia is incomplete, with slight resistance, and, except when the apex is involved, is *confined to the back*. In pleurisy it extends to the front as well, and is, as before mentioned, perfectly flat, with a sense of great solidity imparted to the fingers.

The crepitant rônchus in croupous pneumonia is very fine and heard in a puff at the end of inspiration. It is never heard over the same spot where there is tubular breathing. In pleurisy the crepitant rônchus is coarser, is not limited to the close of the inspiratory act, and may be heard over the same spot where there is tubular breathing. In pleurisy the physical signs of the disease may indicate the involvement of the affected side from apex to base; in croupous pneumonia this is seldom the case. There is no alteration of the physical signs on change of position in croupous pneumonia as there is in pleurisy with effusion. In fibroid induration the dullness is not abruptly limited, and is not altered on change of position.

Whenever a doubt exists in the mind of the physician in regard to the diagnosis of even the simplest case of pleurisy, it may at once be cleared up by an exploratory puncture of the chest-wall with an ordinary hypodermic syringe, as recommended by Eustace Smith, and later by Drs. Barlow and Parker, of London. The operation is perfectly harmless, does not give much pain and may be repeated several times if necessary. The puncture is best made in the intercostal space, im-



mediately below and on a line with the angle of the scapula. When the effusion is localized or circumscribed, as is sometimes the case, the puncture is advised, by the last mentioned writers, to be made over the centre of maximum dullness.

I have frequently found the withdrawal of a syringe-ful of fluid, obtained on exploratory puncture, to rapidly hasten the absorption of the effused fluid. This has been explained as due to the relief of pressure stimulating the absorbents of the pleura.

The following cases, taken from my note-book, may serve to illustrate the various features of pleurisy in children.

CASE I.—A girl, two and a half years old, had been sick three years when first seen. Temperature in the rectum, 105° F. She had a slight cough and had ceased to play. She did not appear to be very sick. On examination of thorax, dullness, which was abruptly limited, was detected at the base of the right lung, in front, extending up to an inch below the nipple. Coarse subcrepitant râles were heard on auscultation, with bronchial breathing and bronchophony in front, over the dull area. In the back the dullness was not so well defined, and the auscultatory signs were less marked than in front. Six days after, dullness was found on the left side in the back and extending to the front. Temperature in the rectum was 102½° F. Bronchial breathing with subcrepitant râles were heard over the dull area. There was vocal fremitus on both sides. The vocal resonance was of an ægophonic quality on the left side, more marked at the upper limit of dullness. The dullness had not extended on the right side. An exploratory puncture with the hypodermic syringe was made on the left side, and clear serum withdrawn. Small doses of infusion digitalis, together with syr. iodide iron were given, and a complete recovery ensued in eight days. The temperature returned to normal two days after the puncture was made.

CASE II.—Sarah R., age nine years, seen May 1, 1878. Was attacked with a chill on the evening of April 27th, followed by fever and vomiting. At the same time she complained of a sharp pain in the left side, extending to the abdomen, and a slight cough. A physician was called in, who diagnosed the case as one of gastric trouble, and prescribed a preparation of rhubarb.

On the morning of the above date, when I first saw her, she had a sallow complexion, a distressed look, no flush of cheeks, but some dilatation of the nares. She had a severe epistaxis the night before, and a tendency to a return of it that morning. The skin was dry, temperature 102¼° F. in the rectum, pulse 140, respiration 56. She still complained of the pain in her side and abdomen, which was increased on coughing and taking a deep breath. She had a short, dry cough, which she evidently tried to suppress. Her breathing was superficial and jerky. On auscultation, the left respiratory murmur was feeble over the base of the lung, and there was bronchial breathing at the inferior angle of the scapula and in the inter-scapular space. No râles were heard posteriorly, but a few coarse crepitant ones were heard in the left infra-axillary space. Vocal resonance was obscure at the base, but bronchophonic at and a little above the inferior angle of capsula. The mobility of the left side was less than the right. Dullness was complete over the base of the left lung posteriorly up to the angle of scapula, and in front up to an inch below the nipple. The sense of resistance was very marked. There was some tenderness on percussion. The apex of the heart was felt to beat on a line with the nipple and one inch below.

A puncture was made with the hypodermic syringe, and slightly turbid serum withdrawn.

The following day the temperature was 99½° F. in the rectum, pulse 100, respiration 32. The bronchial breathing was absent, the other signs about the same. She was seen twice afterwards, and recovered entirely in ten days. She was treated with counter-irritation applied in a small spot over the back, and infusion of digitalis first, and afterwards sulphate of cinchonidia as internal remedies.

CASE III.—Margaret McD., one and a half years old, had been subject to a slight cough for three weeks, which did not cause any anxiety to the mother, as she supposed that it was due to teething. The child was growing no better and began to show signs of wasting, when it was seen by one of the sanitary physicians, who treated it for summer complaint, though the mother stated that its bowels were not loose, nor did it vomit. The patient did not look very sick when I saw her. Her breathing was shallow, temperature 100° F. in the rectum. She took her food well, but would not play. The child was dirtily dressed, and I placed my hand over the back in order to detect any râles. Some were distinctly felt over the left side, which led me to use percussion, when I found a perfectly flat dullness, extending over the entire back of that side. There was a tympanitic quality of the percussion note at the upper third of dullness. In front the dullness extended up to the clavicle of the left side. Such an extent of dullness, together with such mild general symptoms could in my mind be due to an effusion of fluid only, and to verify my diagnosis, I inserted my hypodermic syringe and drew it full of clear serum. Auscultation was not used, unfortunately, as I was pressed for time, and there was no further doubt of the diagnosis. I prescribed a mixture of digitalis and iron, and the case recovered promptly.

75 WEST FIFTY-FIFTH STREET, 3.

## PARALYSIS OF THE DIAPHRAGM.

By BENJAMIN EDSON, M.D.,

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JUNE 25, 1875, I was summoned in haste to Mr. A., about 24 years of age, broker, married, a man of good habits, but naturally spare and thin in flesh. I found him on the bed, tossing violently, in vain efforts at respiration. His attitudes and movements were very suggestive of opisthotonus. Hurried examination—the best that could be made under the circumstances—showed that that was not the condition, neither was there evidence of asthma, the apparent trouble being a dyspnœa from simple inability to draw air into the lungs. There was little opportunity for obtaining a history of the case. The day had been hot and oppressive, and it was learned that he had been somewhat exposed to the rays of the sun, and it was accepted that the heat had, in some not clearly defined measure, been partially, at least, responsible for the dyspnœa. Death seemed imminent, and in the emergency morphia was freely administered, followed by measurable relief. The duration of the most alarming stage of paroxysm may have been twenty or thirty minutes.

The arrival of the family physician, to whom I resigned the case, relieved me from its further care.

May 15, 1877—two years later—I was again called to the same patient, and found that during the day he had suffered from embarrassed respiration. At

this time the symptoms were less severe than when I saw him two years before. Each inspiration, however, required a distinct, thoughtful effort, as did also each expiratory act. About every eighth or tenth respiration was longer than the average, and accompanied with a deep expiratory sigh or moan. The countenance wore a wild and anxious expression, and the man appeared to be most thoroughly frightened. There was great nervousness, but no distinct localized pain. There was partial numbness, with marked pricking sensation in the extremities.

A careful examination revealed no derangement, structural or functional, of heart or lungs. The digestive organs gave no indication of being the seat of the trouble. Neither in the history, nor in what I had seen of the case, was anything of an epileptic character discoverable. The history disclosed that every year since 1873, on one of the early hot days in May or June, he had been similarly affected. There had usually been for a day or two some premonitory symptoms of the coming attack of dyspnoea, indicated by labored breathing and a general feeling of uneasiness and alarm. No known cause could be assigned which was suspected of producing this state. He thought that mental anxiety might have had something to do with it, and yet at other times even greater mental solicitude in business had not been attended by such results.

When he had recovered from the one severe annual attack, he remained wholly exempt from another until the next year. He felt nothing of it nor like it during the interval. He endured heat as well as the average of people.

At this time, closely confined to his office in New York during the day, he had been in the habit of omitting his lunch at midday, eating nothing from morning until 6 o'clock p.m. I advised a lunch at noon, prescribed bromide of potassium, and, in view of any possible digestive trouble, bismuth and pepsin.

May 17th—two days later—I was hastily summoned, to find Mr. A. decidedly worse. On his way home he had seen a man have a spasmodic attack of some kind, and that was charged, rightly or otherwise, with precipitating the paroxysm of Mr. A., which had been impending for two or three days. I found him apparently suffocating, wildly clutching, and in every way possible evidently beseeching for air. His conviction was that he was dying. The extremities were cold and benumbed; venous side of circulation highly congested; heart laboring, but its action was less disturbed than would naturally have been expected. At each inspiratory effort the abdomen was greatly depressed or *contracted*, while in the occasional efforts at expiration the abdominal region was markedly *expanded*. The immediate trouble seemed to lie in his inability to depress the diaphragm. The other respiratory muscles did not appear to be in any way affected.

It was not found practicable to aid him by any mode of artificial respiration. Sinapisms to the extremities, friction, with morphia hypodermically, did not give prompt nor marked relief. In the most urgent extremity, I tried nitrite of amyl by inhalation, with perhaps a little benefit. The quantity apparently administered seemed large, but it was difficult to judge how much the patient actually inhaled. The administration of a full dose of hydrate of chloral was soon followed by a subsidence of the severe symptoms. The breathing became possible, and still easier, although for some hours each act of respiration required conscious thought and effort. After two or three days of rest, he again resumed

business as usual, and during all the hot summer weather had no further trouble with dyspnoea.

June 28th of this year he was threatened with another attack. He had been taking hydrate of chloral in small doses whenever any of the prodromata of his affection were manifested. On this day he exhibited unmistakable symptoms that a severe paroxysm was impending. A prompt resort to chloral in increased doses relieved the embarrassed respiration. I do not undertake to explain the *rationale* of its action, nor do I advocate or defend empiric treatment, except so far as it is the best available in a given emergency. In this case I have reason to be satisfied so far as mere *result* is considered, as it is the first season in six years that he has escaped a culmination of his complaint in violent and most fearful paroxysms.

So far as I know, the literature of this affection is scanty. The ordinary text-books contain not even an allusion to it. In Da Costa's Medical Diagnosis it is referred to as *paralysis*, or *want of power of the diaphragm*. In Vol. XI. of Ziemssen's Cyclopaedia is a brief reference to the same derangement. None of the causes there referred to will account for all the peculiar phases present in this case. I have followed out carefully such theories as have occurred to me, or have been suggested to me by others, but thus far they all fail to account for the facts. I can only say that it is a case of paralysis of the diaphragm, and that I have not the remotest idea of the cause.

It seems probable that the diaphragm could be brought into action through the phrenic nerve by means of electricity.

The points worthy of note are:

1. That the disease is a comparatively rare one.
2. That in this case it appears on a day more than usually warm in May or June of each year.
3. The singular fact that it appears *only* in those months—at no other time during the year—and under the condition stated.
4. That hydrate of chloral has seemed to have power to modify and to prevent the paroxysms.

83 ST. MARK'S AV., BROOKLYN.

## Reports of Hospitals.

### CHILDREN'S HOSPITAL, PHILADELPHIA.

[Prepared for THE MEDICAL RECORD.]

SERVICE OF H. LENOX HODGE, M.D.

(Reported by DR. JOHN MADISON TAYLOR, Resident Physician.)

#### VESICAL CALCULUS IN THE FEMALE.

L. S., at. 9, admitted May 24, 1877. Had enjoyed good health for a long time previous, with the exception of an attack of scarlet fever when she was about seven years of age. This attack lasted six weeks, and was followed by what was to all appearances a good recovery. About six months after complete convalescence from the attack of scarlet fever, her mother noticed that the child "walked queer," and was manifestly less active than usual. Her appetite began to fail, and she complained of constant pain and weakness, for which she was finally put to bed. There was also pain "across the stomach," apparently in the right and left inguinal, and in the hypogastric regions. These troubles combined in confining the child to bed for seven months, according to the statement



of the girl's mother. The urine passed during that period very often contained blood and mucus. The physician who attended the child said that she was suffering from "disease of the kidneys," and, "perhaps, stone in the bladder."

Upon examination of the patient, after her admission to the wards, a large calculus could be easily felt by passing a catheter into the bladder, or the finger into the vagina. During the examination, made while the child was under the influence of ether, there was marked prolapse of the rectum.

The urine yielded the following results upon careful analysis: reaction, alkaline; albumen present, but no bile nor sugar; pus-corpuscles, and ammonio-phosphates of magnesium abundant; urates, epithelial scales of bladder, and bacteria present in small quantities; no tube-casts found.

The child appearing entirely comfortable, it was decided to remove the stone on Saturday, June 2d, upon which day the operation was performed. The urethra was dilated sufficiently to allow the index finger and a pair of forceps to pass into the bladder simultaneously, yet the stone proved too large to be removed entire. It was accordingly crushed, the larger portions removed with the forceps, and the debris washed out by Clover's apparatus. The weight of the collected fragments was 545 grains. The largest fragment was one and five-sixteenths inches long, fifteen-sixteenths of an inch broad, and seven sixteenths of an inch thick.

A qualitative analysis of the stone gave the following results: carbonate of calcium, phosphate of ammonium and magnesium, and uric acid.

June 3d.—Patient much relieved. Temperature ran up to  $101\frac{1}{2}^{\circ}$  on the day of operation, but was never any higher, and by June 14th was about steady.

June 20th.—Great improvement; incontinence of urine less marked.

June 25th.—Dressed, and allowed to walk about the wards. No pain.

July 26th.—Discharged perfectly cured. No incontinence of urine. Gained steadily in flesh after operation.

## Progress of Medical Science.

**APHORISMS ON CANCER.**—In a paper with this title, read before the Sixth Congress of German Surgeons, in Berlin, Prof. Esmarch detailed a number of interesting cases illustrative of the development of cancer from benignant growths, and of its treatment. He has met with four cases in which the malignant growths developed from atheromatous tumors of the scalp, and has repeatedly observed the cancerous degeneration of cicatrices, particularly those of lupus. The results of his observations have convinced him that a predisposition to malignant new growths is given in the hereditary scrofulous and syphilitic dyscrasias.

In the treatment of desperate cases that are too advanced to permit of removal by the knife, Prof. Esmarch places most reliance on arsenic, which he employs both externally and internally. The fact demonstrated experimentally by Gaethjens, that the internal use of arsenic causes accelerated destruction of albumen and increased excretion of nitrogen, furnishes a rational basis for the employment of the drug in the treatment of malignant tumors. Prof. Esmarch uses it to prevent recurrences after operation, as well as in cases that do not admit of operation. Externally he

uses a powder consisting of one part each of arsenious acid and sulphate of morphia, eight parts of calomel, and forty-eight parts of powdered gum-arabic. This powder is sprinkled thickly over the ulcer or wound every day; it exerts a powerful escharotic action, but is at the same time painless and destroys all offensive smell. Internally he gives Fowler's solution in progressively increasing doses. Latterly he has also followed out closely Beneke's recommendation with regard to diet. That author (*Deutsches Archiv für klinische Medicin.*, Bd. XV. S. 538) maintains that the quantities of albumen and of the phosphates in the blood are greatly increased in carcinosis, and that the tumors themselves are very rich in myeline, and hence forbids the use of all articles of food which contain albumen and phosphate of lime, confining the patients as far as possible to the hydro-carbons. Prof. Esmarch gives a diet list, which is interesting, but which want of space compels us to omit. He has also obtained good results from Canquoin's chloride of zinc paste, but it is objectionable on account of the pain it causes. Electrolysis he has employed several times, but only once with any remarkable success. Iodide of potassium given internally, in doses of 3 i. to iss. daily, and applied locally in powder, has, in his hands, proved successful in several cases of malignant neoplasms, that in all probability had their origin in the syphilitic dyscrasia.

In conclusion, he refers to the liability of confounding ulcerated gummy or tuberculous tumors with cancer, and mentions a case of syccosis parasitica, which was thought to be carcinoma until the microscopical examination revealed its true nature. In consequence of the difficulty of the differential diagnosis, he has made it a rule never to extirpate a morbid growth without previous microscopical examination to determine its actual character.—*Reprint from Langenbeck's Archiv*, Bd. XXII., Heft. 2.

**ALLINGHAM ON THE TREATMENT OF HEMORRHOIDS.**—Dr. Matthews, of Kentucky, who has given some very decided objections to the carbolic-acid treatment of piles, and has been sustained by Dr. Van Buren, of this city, now publishes a letter from Mr. Allingham, of London, which contains interesting matter on the same subject. Mr. A. has tried the injection method, following out the plan suggested in this country, but had not been so successful as to be encouraged to perform it in very many cases. He believes that "small, velvety hemorrhoids can be cured by the carbolic-acid injection," but he fears there is some danger of the clot being carried into the general circulation, just as the practice of injecting *navi* has been followed by death. He states that he is "still more and more impressed with the absolute safety of the ligature in all large, very vascular hemorrhoids when the ligature is properly and dexterously applied." In small, "villous, or raspberry-looking" piles, Paquelin's thermo-cautery is the treatment. Touching the diseased part (the mucous membrane, not the skin) with the instrument at dull-red heat, the pile will usually dwindle away. Sometimes two applications will be necessary—generally only one. But this treatment is not always radical. In one or two years they recommence to grow, and finally require a ligature. When once this is applied there is almost no danger of a return. He has performed the operation in nearly eleven hundred cases, and has never had a death from any cause. On the other hand, he has used the actual cautery in about two hundred and twenty cases, and has lost two patients from pyæmia.—*Louisville Medical News*, Aug. 31, 1878.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## DIAGNOSIS AND MANAGEMENT OF YELLOW FEVER.

SINCE our last issue we are glad to be able to see signs of some abatement in the force of the epidemic, and the early visitations of frost give hope that the spread of the disease will soon be permanently arrested in some, at least, of its strongholds. There is less danger, too, of the disease extending into new localities, as the local authorities throughout the country are fully awake to the necessity of extreme vigilance, and are carefully watching all refugees from infected districts, and promptly putting them into quarantine, if any show symptoms of the disease. With these precautions, and the thorough disinfection of suspicious baggage and merchandise, we may regard ourselves as quite secure from danger.

As every physician is interested in this especial subject at this time, and may chance to meet with a case of the genuine disease in a refugee, and as comparatively few are practically acquainted with it, we shall venture to summarize the principal symptoms, as distinguished from those with which it may be confounded, noting such peculiarities as belong to this particular epidemic. The period of incubation appears to be variable, sometimes not longer than twelve hours, sometimes several months, but usually only two or three days.

Premonitory symptoms, when they exist, are headache, pain in the lumbar region, languor, with a furred tongue, loss of appetite, and chilly feelings. These symptoms have always varied with the epidemic. Usually the attack is sudden, often coming on when the patient is at work or asleep. In the majority of cases ( $\frac{1}{2}$  Ford) there is a chill of mild character. In this epidemic we hear that the chill is frequently wanting, the headache slight, and the pain in the lumbar region does not come on until the fever sets in. After the chill comes the fever, the *febrile* or *first stage*. With the rise of the temperature there is also

a rise of the pulse, which may reach 110 or 115 on the first day; it is usually compressible. In the early part of the second day the fever is at its height. In sthenic cases it may reach 104° or 108° (Ford), but 105° is the average. The urine is first normal and then diminished in amount, and is apt to be albuminous. The tongue is moist and creamy throughout the disease, very rarely or almost never brown; the edges and tip are red. The higher the pulse and the stronger the fever, the redder the edges and tip (Stub). There is now intense pain in the head, back, and limbs, redness and suffusion of the eyes, moderate heat, and passive congestion of the surface. The bowels are sometimes constipated and sometimes open. Nausea now frequently occurs, the stomach first emptying its contents and then throwing off bile. There is some tenderness over the epigastrium, but it is not marked. The mind is usually clear. Even in this stage the skin may be jaundiced. Hemorrhages may occur from the nose. This first stage may last twelve, forty-eight, and even seventy-two hours. The fever, however, is apt to fall on the second day, and then commences the *second stage*, or stage of remission. The temperature now falls to the normal or even below it, while the pulse will drop to 100. In some cases convalescence sets in at this time, and the disease is at an end. This constitutes a mild case. In most, however, this favorable condition lasts but a short time (from two to twenty-four hours or longer). Patients then are anxious to get up, but there is still vomiting and epigastric pain, and there is apt to be burning thirst. Now the temperature again rises. The stomach gets more irritable, which is due to congestion; glairy and very acid matters are constantly ejected; sometimes there is green bile, or there are black particles, precursors of the black vomit. This latter symptom is regarded as pathognomonic in connection with the other symptoms that have been named. The vomit is reddish brown, claret-colored, or blackish, with a sediment like coffee-grounds; occasionally it is bright red; it is acid to the taste, but not bitter. The evacuations are now usually blackish; yellowness of the skin is to be looked for at this stage. The urine is also very commonly suppressed; it may be passed and contain large quantities of blood, or may consist wholly of blood. The pulse falls low, possibly to 40, or even 30.

To this stage succeeds another, known as the *third stage*—also called, in fatal cases, the period of collapse. There is great prostration and feebleness of the pulse, and, perhaps, coma and convulsions. But few pass through this stage and live.

There is great variety in the type of the disease in any epidemic. The malignant form is characterized by black vomit, or hemorrhages from internal organs. The sthenic form is marked by high fever. The duration of the disease is from three to nine days. Sometimes bilious remittent runs into yellow fever, and yellow fever



runs into remittent, as in this epidemic; and then, of course, the difficulties of the diagnosis are vastly increased. But two other affections are liable to be confounded with it, and they are relapsing fever and bilious remittent. The first is characterized by nausea and vomiting, by the epigastric pains and tenderness, by jaundice, muscular pains, and a species of black vomit; but its marked peculiarity, the remissions, is not shared by yellow fever, which is essentially a disease of one paroxysm. It differs also from yellow fever in that it shows enlargement of the spleen, and has a characteristic temperature course, the evening exacerbation being  $2^{\circ}$  to  $4^{\circ}$  higher than that of the morning temperature. There is also no albumen in the urine. In bilious remittent there are decided remissions once or twice in the twenty-four hours, or every other day, the spleen and liver are enlarged, quinine is efficacious, and the disease lasts from nine to twenty-one days, in all of which points it differs from yellow fever.

In the matter of treatment we are not agreed upon any medicinal remedy that will check the disease. There seems to be now a pretty general agreement that the bowels should be opened early, if the patient can be seen in time. A favorite method of procedure in New Orleans is to give a warm mustard-bath for the feet, and then follow it by a warm enema; then the stomach is emptied by ipecac, and if the enema does not succeed, a ten-grain dose of calomel is given. Quinine is then administered in doses of ten grains and upwards.

The expectant treatment is pursued, and only such remedies are given as the case seems urgently to demand. The neuralgic symptoms are combated with stimulating liniments or sinapisms. For thirst, amarind-water, acidulated barley-water, and sweetened cream of tartar are given. If black vomit threatens, iced lemonade or champagne is given, the latter with some care. The only nourishment allowed is barley-water, or weak gruel by the spoonful. Should collapse occur, it is to be met by iced brandy, mint ulep, etc., which, if they be not retained by the stomach, can be administered per rectum. In black vomit it is generally thought best to let the stomach alone. Above all are cleanliness in one's surroundings, good air, rest of mind, and the best of attention from efficient nurses.

#### SHOT DURING A PERFORMANCE.

A REPORT comes to us from Baltimore to the effect that on a certain evening recently, during the concluding act of a play at Ford's Opera House, an actor fired a pistol which happened to be loaded, and which also happened to hit a boy spectator in the gallery. As this was an extra part of the performance, the victim very considerably made no outcry, and the audience was not in consequence disturbed. After the performance the boy presented himself, when it was found that the bullet had entered the upper part of

the chest near the shoulder. Of course the actor was exceedingly sorry, and we presume, although it is not so stated in the report, that the boy shared similar feelings. If the result should be fatal, the verdict will undoubtedly be that of "death from accidental shooting." But is it not time that this tomfoolery of discharging loaded weapons upon the stage should be prevented? This is the third case which has come to our knowledge in a comparatively short period in which persons have been accidentally shot during theatrical performances. Two of these cases terminated fatally, one being an actress shot through the head by a performer who was firing at an apple upon her head; another was a boy who was shot by a stray bullet fired from a circus tent. The sequel of the third shooting is as yet uncertain; but when we consider how easily the accident could have been prevented, we are at a loss to express our condemnation of the carelessness of the acts. The question very naturally arises in this connection, why those whose business it appears to be to fire pistols upon the stage, charge pasteboard batteries, shoot cruel pirates, defend village beauties, or knock apples from senseless heads, should not be compelled to guarantee that their weapons are not loaded with ball. This is generally the rule with all who foolishly play with firearms, and why it should not be enforced in a crowded theatre it is difficult to understand. A few more accidental shootings in places of public amusement will, however, doubtless arouse the public to the necessity for some self-protection. In the meantime let the valiant hero upon the stage strut and fire away as usual.

## Reviews and Notices of Books.

HANDBOOK OF THE PRACTICE OF MEDICINE. By M. CHARTERIS, M.D., Professor of Practice of Medicine, Anderson College, Glasgow, etc., with illustrations. Philadelphia: Lindsay & Blakiston. 1878. 12mo, pp. 336.

The work is very good as far as it goes. It is calculated to give a condensed idea of the practice of medicine for the use of the student and younger practitioner. Although admirably terse, it is little better than an outline of the commoner diseases, contains nothing original, and even as a handbook will not prove satisfactory to the ambitious and painstaking medical student. The work is well printed, handsomely bound, and presents an attractive appearance.

ANATOMY, DESCRIPTIVE AND SURGICAL. By HENRY GRAY, F.R.S., F.R.C.S., etc., with an Introduction on General Anatomy and Development, by T. Holmes, M.A., Cantab. New American edition from eighth and enlarged edition. To which is added Landmarks, Medical and Surgical, by Luther Holden, F.R.C.S. Philadelphia: Henry C. Lea. 1878. 8vo, pp. 952.

The announcements of successive editions of Gray's Anatomy within comparatively short periods, while it is not surprising to those who are acquainted with the value of the work, is a convincing proof of its worth to the uninitiated student. It is but ordinary

justice to its merits to say that it has been the standard work of its kind in this country for the past twenty years, and that it is destined to preserve its popularity we have continued evidences in each new issue. Great care has been exercised in correcting old errors and in elaborating all the necessary details which the progress in the study of the science has made necessary. We are now assured that the work is as near perfect as possible, and, as far as we are able from a thorough examination to testify, we are quite confident that the assertion is based upon fact. The present edition has been superintended in its passage through the press by Dr. Richard J. Dunglison, of Philadelphia, whose reputation for accuracy and scholarship is perhaps the best guarantee that will be required for the result claimed. The publishers added considerably to the practical value of the work by the incorporation of Holden's "Surgical Landmarks." The general make-up of the book is not what it should be. The paper is poor, the ink pale, and, altogether, it has a cheap appearance, which is not excusable in a work which should be so constantly consulted and so frequently studied.

ON THE THERAPEUTIC FORCES. By THOMAS J. MAYS, M.D. Pp. 143. Philadelphia: 1878. Lindsay & Blakiston.

THIS little tract contains much food for thought. The first chapter is devoted to questions of nutrition, in which the author endeavors to show that the fatty foods are much more important as generators of force and energy than the albuminous. The second chapter briefly discusses the "General Law of the Action of Forces on the Animal Body." The third is entitled "Chemical Stimulants," and treats of the hydro-carbons, phosphorus, and oxygen. The fourth includes the bitter tonics, ammonia, opium, iodine, and cold. Chapter Fifth introduces antimony, croton oil, etc. Chapter Sixth treats of the narcotics. Chapter Seven sums up and concludes the work.

Many of the author's propositions are peculiar, and will require for their substantiation a larger array of facts than he has seen fit to bring forward; but if true, of great importance as aids to the elucidation of many obscure problems in therapeutics. On the whole, the book is to be commended, and will be perused with pleasure by those who interest themselves in the higher realms of speculative medicine.

## Reports of Societies.

### THE AMERICAN DERMATOLOGICAL ASSOCIATION.

#### SECOND ANNUAL MEETING,

August 27th, 28th, and 29th, 1878.

(Reported for THE MEDICAL RECORD.)

#### FIRST DAY, TUESDAY, AUGUST 27TH—MORNING SESSION.

THE Association met at the Grand Union Hotel, Saratoga Springs, at 9.30 A.M., August 27th. There were present Drs. J. C. White and Edward Wigglesworth, of Boston; R. W. Taylor, C. Heitzmann, H. G. Piffard, and Geo. H. Fox, of New York; S. Sherwell, of Brooklyn; L. A. Duhring and A. Van Harlingen, of Philadelphia; and I. E. Atkinson, of Baltimore. Among the invited guests present at the sessions of the Society were Drs. Graham, of Toronto, and Burdard, of New York.

After a business meeting with closed doors, the President, Dr. J. C. WHITE, made a brief introductory address, and then the first paper was read by Dr. ATKINSON, his subject being

#### THE PIGMENTARY SYPHILODERM.

According to Hardy and Fournier, this was liable to occur from the fourth month to the end of the second year of the disease, was found almost exclusively in females, and generally occupied the lateral surfaces of the neck. The pigment deposit was *café-au-lait* in color, and sometimes formed a well-marked net-work. The spots were smooth, not raised above the surface, and without any desquamation. There were no subjective symptoms, and the affection was very rebellious to treatment, lasting for months, and even years. The reader gave four cases in detail, after which he went on to say that he thought the pigmentary syphiloderm could probably be much more frequently observed than it is at present (and even in males), if it were more carefully looked for. He considered that the pigmentation more closely resembled the stains sometimes left after roseola than any other condition; but in roseola staining there was a clear history of preceding hyperæmia, and, besides, it was much less permanent than the pigmentary syphiloderm. He could not agree with Dr. G. H. Fox, who, in his paper of last year, had classed this affection as vitiligo; for while the enclosed spaces in the dark network might have less coloring than natural, there were equal claims to consider that there was an actual increase of pigment around these. It was a fact, also, that the leucodermatous condition referred to was not constantly seen.

In the discussion which followed the reading of the paper Dr. Duhring stated that he had formerly been rather sceptical as to there being any such thing as a pigmentary syphiloderm, but that within the past year he had met with a case in the wards of the Philadelphia Hospital which he could not doubt was a genuine instance of the affection.

Dr. Fox thought that the points at issue could only be decided by the more careful and extensive observations of dermatologists all over the world; but it was his personal opinion that undeserved dignity had been conferred upon the condition referred to by classifying it as a variety of syphilis. On the other hand, he believed it corresponded exactly with the definition ordinarily given of vitiligo.

Dr. TAYLOR thought that it was principally confined to the Latin races. He had seen it both with and without the whitish patches, and in a large number of patients, some of whom were syphilitic, and some of whom were not. He considered it a rather significant fact that it occurred by preference in a region which is ordinarily notably free from syphilitic manifestations.

The next paper on the list was one by Dr. L. D. BULKLEY, of New York, on

#### A NEW METHOD OF PERMANENTLY REMOVING SUPERFLUOUS HAIR;

but, Dr. Bulkley being absent, Dr. DUHRING read the report of

#### A CASE OF THE SO-CALLED XERODERMA OF HEBRA.

While the case was one characterized by very extensive lesions, he was induced to believe, from his study of it, that the disease was not necessarily followed by such marked atrophy as had been claimed by Hebra, Kaposie, and Taylor. He considered the name xeroderma (which had been employed for years to de-



note a mild form of ichthyosis) an altogether inappropriate term, for the reason that it does not describe the prominent characteristics of the affection. (Photograph exhibited).

On motion of Dr. Piffard, discussion on Dr. Duhring's case was postponed until after the reading of Dr. Taylor's paper on the same subject.

Dr. Fox then read a paper on

#### THE PROPER USE OF THE TERM ACNE,

in which he maintained that true acne was always a disease of internal origin, and that it could not be produced artificially. It was discussed by Drs. Wigglesworth, Van Harlingen, Sherwell, Piffard, Taylor, and White, after which the report of

#### A CASE OF SCLERODERMA,

by Dr. F. P. Foster, of New York, was read by the Secretary, Dr. Taylor.

The disease commenced in the region of the left breast, and gradually extended until the greater part of the trunk and of both arms was involved. The patient's sufferings were so intense (especially from dyspnea) that it was necessary to give her an enormous quantity of morphia, and at one time she was taking no less than thirty-six grains of the drug in twenty-four hours. The case terminated fatally, without the development of any intercurrent affection.

Dr. HEITZMANN thought that there could be little doubt that the case reported was not one of scleroderma at all, but really lenticular cancer.

There was a further discussion by Drs. White, Van Harlingen, and Piffard.

#### AFTERNOON SESSION.

Dr. HEITZMANN read an elaborate paper on

#### EPITHELIUM AND ITS PERFORMANCES,

during the course of which he detailed his own investigations and observations, and exhibited a number of drawings illustrative of the different points touched upon. He was of the opinion that scientific dermatology must depend on anatomy, and that many things in connection with diseases of the skin which are now puzzles would be satisfactorily solved within the next twenty-five years if the great field for original investigation were thoroughly worked.

Drs. Fox and Piffard maintained, on the other hand, that it was by no means possible to base the science of dermatology upon microscopical investigation to any great extent. Clinical work and the study of therapeutics were of more importance, since the great aim sought was to cure disease. At the same time, however, it was very desirable that some who were peculiarly fitted for the task should devote themselves to this class of studies; and such men as Dr. Heitzmann were certainly deserving of all praise for their earnest and self-denying devotion to such work.

The President then read the report of the Committee on Statistics, combined with which there was a special report on the subject of leprosy, some of the cases of the latter being illustrated by fine photographs.

#### SECOND DAY, WEDNESDAY, AUGUST 28TH—MORNING SESSION.

Dr. DUHRING read an extended paper on a

#### CASE OF INFLAMMATORY FUNGOID NEOPLASM,

in which the history and symptoms, which were of remarkable interest, were detailed with great minuteness. The affection occurred in a lady approaching her sixtieth year, whose family history, with the ex-

ception that one case of cancer had been known in it, was good, and whose previous health had been excellent. For some time before the outbreak of her present trouble there was excessive irritability of the skin, as shown by repeated attacks of urticaria. The lesions, which occurred in various parts of the body (but most notably on the forehead and face, where they originally appeared), were principally of two kinds, viz.: flat patches, and round, tumor-like growths. The former were of various sizes, slightly elevated, dry, scaly, and of a chapped and furrowed appearance. When the red coloring faded away, it was followed by dirty yellow pigmentation. The tumors also varied in size, ranging from that of a split pea to that of an egg. They were tuberculous, nodulated or fungoid in character, sometimes soft, and sometimes firm and solid, and were distinctly furrowed or lobulated. The general health remained unimpaired, and the only subjective symptoms of any note were itching, and occasional pain, or a burning sensation. One very remarkable part of the affection was the exceedingly rapid development of the growths. In some instances they remained for a long time, and in others quickly underwent involution, no permanent scars being left after their disappearance. When they were examined under the microscope it was found that the whole of the corium was infiltrated with a new growth, and that the walls of the hair-follicles were also packed with it. In the former the cells were more abundant in the deeper than in the outer portion of the tissue, and they appeared to be homogeneous in character, and not distinctly nucleated. Some, it is true, were nucleated, but none had more than one nucleus. There were no spindle-cells, as far as had been observed.

This case, Dr. Duhring said, was new to him, and he was of the opinion that the affection was a very rare one, the only instances of it on record being two reported within the last six years by Hebra, who called it simply *neoplasma*. That it was of an inflammatory character seemed to be shown by the fact that it was greatly aggravated both by arsenic and iodide of potassium. It added very greatly to the interest of the case that Dr. Duhring had taken the trouble to bring the patient herself to Saratoga, and was thus enabled to present it to the Association. He also exhibited a number of microscopic specimens from the case.

Dr. PIFFARD stated that he had seen two cases which bore some resemblance to Dr. Duhring's, one of them having been exhibited at a meeting of the New York Dermatological Society by Dr. Sherwell, of Brooklyn. The case was also discussed by Drs. Taylor, Fox, Sherwell, Wigglesworth, and White.

In conclusion, Dr. Duhring stated that he considered that the patient had improved in a very marked manner during the last three months under the pretty constant administration of the tincture of ergot. It should be mentioned also that two of the tumors (one on the face and the other on the thigh) had been removed by ligation and ablation, and that the result had been most admirable in each instance.

In the absence of Dr. W. A. Hardaway, of St. Louis, the Secretary read a paper prepared by him, on

#### THE TREATMENT OF HIRSUTIES.

The procedure practised and recommended by him was that adopted by Dr. Michel, of St. Louis, in the removal of wild hairs from the eye-lids, viz., the use of electrolysis. The needle-holder was attached to the negative pole and an ordinary sponge electrode to the positive. The latter was held in the palm of the

patient's hand, and the needle inserted into the hair-follicle, where it was allowed to remain until a whitish froth was observed about it. Epilation forceps were then employed to remove the hair, which would require no force if the operation had been a successful one. The removal of a hair in this way usually occupied from two to five seconds, with a battery of eight elements, and occasioned but little pain. Dr. Prince, of Jacksonville, Illinois, had employed the method with great success, and had invented an ingenious needle-holder, which was presented herewith for the inspection of the members.

When electrolysis was impracticable, Dr. Hardaway recommended the use of chloride of zinc, the strength of the solution employed being two drachms of the caustic to three drachms of water. A few drops of this solution having been placed in a watch-crystal, a small portion of it was to be introduced into the hair-follicle by means of a hypodermic syringe needle; care being taken to remove any of the fluid which might chance to come in contact with any other part.

Dr. PIFFARD spoke at some length on the subject of the paper. He had been in the habit of removing the hair before performing electrolysis in the follicle, and could not see how Drs. Michel and Hardaway could insert the needle into the follicle while the hair was still there, on account of its extremely small size. He usually employed an irido-platinum needle, the iridium being added for the purpose of giving the necessary stiffness, and the platinum not being liable to rust.

Dr. Fox stated that he could not agree with Dr. Hardaway as to the operation being almost painless. He had employed it in a considerable number of instances, and such had certainly not been his experience, although every precaution had been taken to render the pain as slight as possible. He generally used a simple platinum wire, which could be drawn out more finely than a steel needle, and which passed into a hair follicle very much as a bougie into the bladder.

Dr. HEITZMANN had formerly employed strong nitric acid on the point of a nickel-plated pin, with considerable success, as he thought at the time; but finding, after a more extended experience, that the hairs almost always returned in the course of time, he had abandoned the method. He confessed that he was rather sceptical in regard to the permanent removal of hair either by electrolysis or any other means that had as yet been devised.

Dr. TAYLOR reminded Dr. Heitzmann that the use of nitric acid in this way was not at all comparable to electrolysis, since the greater part, if not all of the acid, must necessarily get wiped off of the point of the pin before the latter reaches the bottom of the follicle.

Dr. DUNNING stated that he had recently employed with fairly successful results a three-sided needle, which was introduced directly into the follicle; after which three or four turns were given it, and as soon as a small drop of blood appeared upon the surface, it was removed. The method had been suggested to him by Dr. Bulkley, and it had the merit of not causing any pain.

#### AFTERNOON SESSION.

Dr. PIFFARD read a report of

#### A CASE OF GANGRAENOPSIS

occurring in a syphilitic child of one year, and terminating fatally. The mother of the child was also suffering from constitutional syphilis. The gangrene spread rapidly, notwithstanding the treatment employed, and involved nearly the whole of the face by the time death occurred, ten days after the commence-

ment of the trouble. (Photograph exhibited.) As regards the etiology of the case, Dr. Piffard thought that only two hypotheses seemed tenable—that it was either malignant pustule or mercurial gangrene; and of the two he considered the latter the more probable. It was certainly a remarkable fact, however, in this connection, that mercurial inunction had been practised on the child only two days when the gangrenous lesion began to develop.

Dr. DUNNING said he would hesitate before attributing this pathological process to the small amount of mercury employed in the case, and would prefer to consider it probably of internal origin and obscure. Dr. Taylor also thought these cases were of idiopathic origin, as a rule.

Dr. HEITZMANN remarked that most of those which he had seen occurred in connection with, or as sequelae to scarlet fever; and Dr. SHERWELL mentioned that within the past ten days he had known of two cases of gangrene of the mouth, one of which was of scarlatinal origin, while the other occurred in a strumous child without assignable cause.

The next paper in order was one by Dr. Sherwell on

#### THE USE OF LINSEED AND OIL AS THERAPEUTIC AGENTS IN DISEASES OF THE SKIN.

He had first called the attention of the profession to this subject, he said, in a paper read a few months previously before the New York Dermatological Society, a brief extract of which had appeared in the *NEW YORK MEDICAL RECORD* of April 13, 1878. Hitherto the chief hydrocarbon in use had been cod-liver oil, but this positively disagreed with some individuals, and was open to many objections; so that he had been led to seek for some more assimilable and less objectionable one, and he believed that he had discovered it in flaxseed. He was in the habit of employing it in three forms.

1. If the patient was a male, and had sound teeth, he recommended the seed in its natural state, as he could carry a quantity of it in his pocket and eat it from time to time through the day. The ordinary domestic flaxseed is small, and of a dark color, and contains about twenty per cent. of oil; while the Bombay or Calcutta seed, which is by far the most desirable, is larger, lighter in color, and contains about thirty per cent. of oil. Its use in this manner was unattended by any disagreeable results.

2. In the case of women and children he preferred the seed ground into meal, and was in the habit of using it mixed with milk in the form of a porridge.

3. He sometimes employed the meal in the shape of bread, flour being added to the meal in any proportion desired. This had been suggested to him by Dr. Piffard, and he had found it of great service in cases where the linseed could not be taken in other forms, although he did not consider it quite so efficient as the simple seed, ground or whole. [A loaf of the bread, containing sixty per cent. of linseed meal, was here exhibited and partaken of by the members.]

When the seed was taken into the stomach in its ordinary state, a natural emulsification was performed within the system from the oil freed there, and he considered a recent oil much more active than one which had been exposed for some time to oxidation. He believed, from what he had seen of its action, that linseed had specific virtues in the dry and scaly diseases of the skin, such as pityriasis rubra, ichthyosis, and dry eczema, and that these were due to its peculiar effect in stimulating and correcting the sebaceous secretion, as well as its beneficial influence upon the system in general. Externally applied, linseed oil



was of marked service in lubricating the surface, and it had the great advantage over most other oils of not becoming rancid when mingled with degraded epithelium.

Dr. SHERWELL gave the details of two cases of pityriasis rubra, one of pemphigus foliatus, and one of pemphigus vulgaris, all of great severity, which he had treated successfully with linseed and oil, and in some of which all other measures had failed. He also mentioned a number of cases of ichthyosis and chronic eczema in which he had employed them with the most satisfactory results. The paper was discussed by Drs. Piffard, Van Harlingen, and White.

Dr. ATKINSON now read a paper on

#### THE BOTANICAL RELATIONS OF TRICOPHYTON TONSURANS,

in which he gave the details of his experiments in cell-culture, after the method of Van Tieghen, and in connection with which he exhibited a number of drawings representing the microscopic appearances presented at different stages of the growth of the parasitic vegetation. It was discussed at some length by Dr. Heitzmann.

The last paper of the afternoon session was a very elaborate report of

#### A CASE OF ULCERATIVE SYPHILODERM,

by Dr. VAN HARLINGEN. It occurred in a female patient in advanced life, and he considered it a very rare form of disease. It was of long standing, and commenced in a gradually increasing roughness of the skin of the legs, with the appearance of small gray patches. This was the only trouble about the skin for a number of years, and then itching commenced, and the gray patches extended over the body, and finally made their appearance on the face. There were also some ulcerations at times. When the patient came under Dr. Van Harlingen's notice, some time later, the entire surface of the body was affected, the color for the most part being a brownish red, except on the legs, where it was of an ashen gray. At many points there were deep, profusely suppurating ulcers, and about the right elbow was a singular group of hard, gray nodules. Almost everywhere else the skin was covered with fine scales, and in some places there were patches of dead white, which were found to be the cicatrices of former ulcerations. The ulcerations continued to increase in number and severity, in spite of all treatment, and the patient finally died of exhaustion. From the family history, and the condition of some of the internal organs, as shown by the autopsy, Dr. Van Harlingen was inclined to believe that the disease was of scrofulous origin. Under the microscope the horny and mucous layers of the skin seemed normal in character, but the papillary layer of the corium-cells were markedly infiltrated. The upper and middle layers were principally affected, and the lower ones to a much less extent. [Microscopical specimens presented.] The case was discussed by Drs. Atkinson, Duhring, and Piffard.

#### THIRD DAY, THURSDAY, AUGUST 29TH—MORNING SESSION.

In consequence of the pressure of time, a paper describing

#### A CASE OF RECURRENT CUTANEOUS HEMORRHAGE, WITH URTICARIAL AND BULBOUS EFFLORESCENCE,

by the President, Dr. WHITE, was read only by title, and Dr. TAYLOR then offered

#### A FURTHER CONTRIBUTION TO THE STUDY OF THE XERODERMA OF HEBRA.

During the past year, he said, he had had an unusual opportunity of studying the disease in the persons of three sisters, and he thought he would now be able to clear up a number of points which last year had seemed obscure. One important matter was that he had determined positively that the brown spots of pigmentation invariably appeared in the exact position of the red spots preceding them, and another was that these red spots consisted of a new formation of the papilla, and seemed to be the starting-point of the disease. The blood-vessel at first underwent enlargement, but afterwards became atrophied and disappeared. The brown spot was then left; its shape corresponding with the conformation of the vessel. The pigmentation might be explained either on the hypothesis that the haematoidin was exuded from the enlarged blood-vessel, or that the natural production of pigment in the part was exalted by the increased vascularity present. It would seem, then, that in the pathological history we had, *first*, the red spot; *second*, the brown spot, with pigment development and new cell-formation; and *third*, the new cells, together with the normal cells of the part, degenerating and leaving cicatricial tissue. All the vessels underwent hypertrophy and then atrophy; and when the atrophic process had once set in (if it were at all intense) there would be no further pigmentation; while if the atrophy were not marked, the pigmentation might go on indefinitely. In its later developments Dr. Taylor believed that the disease predisposed the patient to malignant growths about the face. In regard to a name for the affection, it was plain to see that it could not properly be called a xeroderma, and he proposed as a title, descriptive of its true character, the following—*angioma pigmentosum et atrophicum*. [Microscopic specimens presented.]

A protracted and most interesting discussion, by Drs. Duhring, Piffard, Fox, Heitzmann, and Taylor, followed the reading of the paper; after which the Permanent Committee on Classification and Nomenclature made their annual report, through the President, Dr. White. After some opposition, the classification of Hebra, considerably simplified and modified, which was recommended by the committee, was adopted by the Association, whose members thereby bound themselves to make exclusive use of the same during the next twelve months.

At one of the private meetings of the Association the following officers were elected for the ensuing year: President, L. A. Duhring, of Philadelphia; Vice-Presidents, J. N. Hyde, of Chicago, and S. Sherwell, of Brooklyn; Secretary, R. W. Taylor, of New York; Treasurer, J. E. Atkinson, of Baltimore. The retirement of the old, and induction of the new president then took place, with a few appropriate remarks by each, and the Association adjourned to meet in New York on the last Tuesday of August, 1879.

THE YELLOW FEVER COMMISSION.—A meeting of the Medical Society of the County of New York is to be called, for the purpose of advising Congress to make an appropriation for a medical commission to inquire into the origin, the prevention, and the treatment of yellow fever, and also to suggest such legislation as may be needed to empower the general government to institute measures for its prevention and control.

## Correspondence.

## INTERNAL QUARANTINE FOR YELLOW FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I have your letter requesting my "views regarding internal quarantine, and how it could be made effective in the way of preventing the spread of yellow fever."

I hope later to review more fully than is possible at this time the lessons of the present epidemic in respect of internal quarantine, which has been tried by nearly, if not quite all of the cities and towns which have suffered from the fever, as well as by a few cities which have so far escaped. The experience of the past, especially as exemplified in land quarantines against the spread of cholera, have not only proved ineffectual, but have in some instances added famine to pestilence. Where the inducement is great, the quarantine is sure to be broken, and in view of this fact I have taken the ground that absolute quarantine by land is impracticable. I do not in fact believe it necessary, but certainly in any effort to prevent the spread of yellow fever, it is more rational to adopt some plan which it is possible to execute.

The quarantines established, since the commencement of the present epidemic, by the various local authorities, have been directed especially against *persons* coming from infected places, and have been extreme and uncompromising; that is, they have declared that no one from an infected district shall be permitted to pass the quarantine until frost, or the first day of December. While so rigid an ordinance was declared against persons, infected vessels, like the steamboat *John D. Porter* and her barges, were permitted to ascend the Mississippi and Ohio rivers, a distance of 1,600 miles, almost without hindrance. The rivers are national high roads of commerce. The health authorities of the several States can, at most, only forbid the landing of infected vessels, and the laws of the United States forbid the Government health authority from interfering in such cases, which practically leaves an infected vessel as a law unto herself, to carry the poison of the silent destroyer unchecked, "with effect much like a firebrand amongst explosives."

The unsettled, indefinite opinions held in respect to how the yellow fever poison is spread from place to place appear to underlie the failure of internal quarantine.

*Evidence warrants the assertion that yellow fever poison is transported by things, and not by persons considered apart from their clothing.* As examples bearing upon this evidence, I may mention several cases which occurred during the present epidemic. A young woman, a resident of Cincinnati, was there attacked by the fever and died. Previous to her attack, baggage or goods brought from the infected city of New Orleans had been stored in the house where she lived. The children of the Porter family residing upon the bank of the Mississippi, about two miles from Cairo, found a skiff which had been used by refugees from the infected cities, and carried it to their home for repair. Three or four days afterward all of the children who were around the boat were stricken with the yellow fever in one day. At Gallipolis, Ohio, none have had the yellow fever but those who visited or came near the infected steamboat and her barges anchored in the river near that place, and

there have been twenty-five cases and nine deaths up to the 13th inst. On the other hand, yellow fever patients have been treated, and in some instances are now under treatment, in the Marine Hospitals at St. Louis, Cairo, Louisville, and Cincinnati, without communicating the disease, the simple precaution having been taken to disinfect the clothing and other effects immediately upon receiving the patients. It is a well-known fact that the unacclimated attendants upon the yellow fever patients at the New York Quarantine do not contract the disease; this is also true of other quarantines. Dr. Vanderpoel disinfects the clothing by fire, so there shall be no mistake about its thoroughness.

Now, if the premises be true, the conclusion indicates a simplified quarantine, not of *persons*, but of *things*—the clothing upon the person, baggage in boxes, trunks, valises, or hand bags. The disinfection should be effectuated just outside an infected city, at the commencement rather than at the end of a journey. When the yellow fever breaks out among the resident population of a city or town, all unacclimated persons should be prohibited from entering the infected place, and the unacclimated residents should be removed to temporary camps on the highest available ground, at least two miles outside of the infected locality. But there should be established an intermediate station where the clothing and other effects of the fleeing people shall be thoroughly disinfected before they are permitted to enter the camp. Such a simplified internal quarantine, as here indicated, might be carried out if a central office or head were clothed with authority, but in my opinion the millennium will have come when the authorities of all of the cities and towns of the several States think and act alike in this matter. Checking the spread of transportable and preventable disease is one of the contingencies that our forefathers appear not to have taken into account when they established our *e pluribus unum* form of government.

Very respectfully yours,

JOHN M. WOODWORTH,  
Surgeon-General United States Marine  
Hospital Service.

WASHINGTON CITY, Sept. 16, 1878.

## ON THE ORIGIN AND CONVEYANCE OF YELLOW FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—It is well known that this fever is indigenous in Havana, Vera Cruz, Matanzas, Sagua la Grande, St. Thomas, St. Domingo, &c., and may be said to be permanently present there. It is only occasionally present in the United States, and I believe must be imported and cultivated there to gain a good foothold, although the climatic and social peculiarities of New Orleans, Memphis, Vicksburg, and other towns often seem to invite it. It arises from a distinct and specific poison, which frost kills, and hence the inference seems almost irresistible that it must be re-imported into all places where it has once been destroyed.

It seems admitted that the poison of yellow fever, like that of typhoid fever and Asiatic cholera, cannot be conveyed directly from the sick to the healthy, but the perspirations, hemorrhages, vomits, urine, and other discharges undergo changes outside of the body which reproduce the disease, which then arises as a miasm, or malaria, from the unwashed, and undisinfected bed and body clothes, from the wash and chamber utensils, and from the yards, drains, privies, gutters, &c., into which these foul substances have been thrown. The principal indication for the pre-



vention of yellow fever is absolute personal cleanliness of the sick, their families, the nurses, doctors, and all who are in attendance. Every nook and cranny of the sick-room, and every article in it should be kept absolutely clean and disinfected. After that, yards, streets, gutters, drains, privies, &c., and every mass of filth, private and civic, should be attended to.

JOHN C. PETERS.

## HOW TO MAKE A GOOD PLASTER-OF-PARIS BANDAGE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I desire to make known to the profession, through your journal, the result of my experience with a new variety of cloth for the plaster-of-Paris bandage, and a new way of cutting the same. It is superior to the thin muslin or crinoline, and is known in the trade by the name of "cheese cloth." Its meshes are finer than that of the crinoline; and as no starch or dressing is used in its manufacture, the fuzz of the thread in the mesh is sufficient to retain the dry plaster without loosing the same. To prepare the same in rollers, the most convenient way is to take a whole piece (sixty yards in length) in which the end tags have not been removed, to any book-binders or printers who have a large *lever paper-cutter*, and get the same cut into strips of the proper width for rollers. Ten minutes' time will suffice for this, at an expense of about twenty-five cents. The strips are then ready to be cut off into the required length for rollers, and as the cloth is folded in yard folds this is an easy matter. The sixty yards will make over a hundred five-yard rollers, and not the slightest drawing of the thread will be observed.

DANIEL S. BURR.

BINGHAMTON, N. Y., Aug. 22, 1878.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 8th to September 14, 1878.*

VICKERY, R. S., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Plattsburg Barracks, N. Y. S. O. 164, Dept. of the East, Sept. 11, 1878.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Columbus, N. Y. H. S. O. 160, Dept. of the East, Sept. 6, 1878.

OPERATION FOR PHYMOSIS BY THE ELASTIC LIGATURE.—At a recent meeting of the *Société de Chirurgie* in Paris, Dr. Hue, of Rouen, read a paper on a modification introduced by himself in the operation for phymosis. Instead of dividing the prepuce with a cutting instrument, he merely passes a needle through its dorsal surface close to the base of the gland, and ties the portion of skin in front of the puncture with an elastic ligature. The ligature cuts its way through in three or four days. The process is not painful, and the patients can, if necessary, continue their usual avocations. Dr. Hue has employed this process with success in eighty cases, which comprised both old men and children. He asserts that the result is very satisfactory from an æsthetic point of view; the gland remains half uncovered and retains its natural decoration unmarred by a scar.—*Le Progrès Médical*, No. 19.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 14, 1878.

| Week Ending     | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|-----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Sept. 7, 1878.  | 1             | 19             | 27             | 3                          | 2        | 37          | 0          | 0             |
| Sept. 14, 1878. | 0             | 18             | 34             | 1                          | 1        | 16          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., August 31, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during past week under the National Quarantine Act:

*Memphis.*—During the week ended six o'clock, September 12th, there were 687 deaths from yellow fever. It is impossible for the Memphis authorities to ascertain the number of cases.

*Brownsville, Tenn.*—The first case of probable yellow fever occurred on the 29th of August, resulting in death September 2d, since which time there have been 9 deaths from yellow fever. There were 30 cases under treatment last evening. At least two-thirds of the population fled the city between the 1st and 4th insts.

*Holly Springs.*—116 new cases of yellow fever and 42 deaths occurred during the week ended yesterday evening, making in all 216 cases and 67 deaths. All of the resident physicians are sick.

*Canton, Miss.*—150 new cases of yellow fever and 20 deaths for the week ended yesterday evening. First case August 1st. Total cases, 340; total deaths, 50.

*Port Gibson, Miss.*—Dr. Wharton, of Mississippi State Health Board, reports about 500 cases of yellow fever and 94 deaths to yesterday noon, and "very few subjects left to take it."

*Water Valley, Miss.*—One citizen taken with yellow fever September 1st and died on the 7th. No other cases to yesterday evening since the refugee cases reported in August.

*Ocean Springs, Miss.*—16 cases of yellow fever and 4 deaths occurred during the week ended yesterday evening, making 34 cases and 9 deaths in all since commencement, August 30th.

*Pass Christian, Miss.*—From August 29th to September 9th there were 15 cases of yellow fever and one death.

*Bay St. Louis, Miss.*—6 cases of yellow fever developed in Bay St. Louis during the last week. 2 deaths. No new cases yesterday.

*Pascagoula, Miss.*—One of the cases previously reported, since died. No new cases.

*New Orleans.*—During the week ended yesterday noon there were 1,528 cases of yellow fever and 530 deaths, making in all, 6,137 cases and 1,925 deaths. In the last twenty-four hours, to Friday noon, there were 228 cases and 58 deaths.

*Plaquemine, La.*—175 cases of yellow fever and 37 deaths had occurred up to Sept. 8th.

*Morgan City, La.*—There have been 25 cases of yellow fever and 8 deaths, of which 3 cases and 2 deaths occurred during past week.

*Port Eads, La.*—No cases and no deaths from yellow fever during last week. There were 21 cases and 2 deaths from Aug. 16th to 31st—period not previously reported—making in all 67 cases and 8 deaths.

*Mobile.*—One death from yellow fever occurred on the 9th inst.

No other cases to last evening. City healthy.

*St. Louis.*—During the week there were 2 cases, of local origin, said by some to be yellow fever, disputed by others; one died, the other was sent to Quarantine hospital, where 9 refugees died of yellow fever during the same period.

*Cairo.*—The editor of the *Cairo Bulletin* died of yellow fever on the 12th inst.; one employé of the *Bulletin* office died yesterday. No other cases. On the 11th inst. 4 members of a family residing two miles from Cairo, upon the bank of the Mississippi, were suddenly stricken with yellow fever. On the 10th the remaining two members of the family were attacked; one died. The children found an abandoned skiff in the river, and removed it to the house for repair. Three or four days afterwards all who were around the boat were stricken with fever in one day. The Quarantine physician dissents from the diagnosis of the attending and consulting physicians.

*Hickman, Ky.*—The telegraph operator reported dead. No other information obtained.

*Louisville.*—There were 19 new cases of yellow fever and 7 deaths for the week ended yesterday evening—all refugees.

*Cincinnati.*—From Sept. 4th to yesterday evening there were 7 cases of yellow fever and 4 deaths. All of whom were recently from infected places South.

*Gallipolis, Ohio.*—There have been 25 cases of yellow fever and 9 deaths, resulting from communication with the steamboat "John D. Porter" and her barges while anchored near Gallipolis.

This vessel and her infected barges ascended the Mississippi and Ohio rivers from New Orleans to Gallipolis with effect much like a firebrand among explosives. The local health authorities could only prevent her landing, and the law forbids this office interfering in such cases.

*Key West.*—One case of yellow fever and one death during the past week.

*Kingston, Jamaica.* Sept. 3d.—A few cases of yellow fever have occurred at Port Royal, six miles from Kingston; one proved fatal.

The steamship "Etna," from Hayti, arrived at Kingston on the 1st inst. with the purser sick of yellow fever contracted in Hayti.

*Calcutta.*—There were 11 deaths from cholera and 20 from small-pox during the week ended July 13th.

*Bombay.*—22 deaths from cholera and 9 from small-pox. week ended July 23d.

*Havana.*—51 deaths from yellow fever and 5 from small-pox during the week ended Sept. 7th.

During the week ended Aug. 24th there were 24 deaths from scarlet fever in *Birmingham*, England, and the same number in *Liverpool* and *London*. In *Hamburg* there were 31 deaths from typhus fever, 11 from enteric fever, and 20 from diphtheria in the same week.

In *Alexandria*, Egypt, the annual rate of mortality per 1,000 of the population, based on the weekly mortality for the week ended Aug. 8th, was 58.8.

No official reports could be obtained from *Vicksburg*, *Grenada*, *Baton Rouge*, *Bolton*, etc.

Reports from other places indicate good health.—JNO. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

**CLUB-FOOT CURED BY AN ACCIDENT.**—The following case is of interest, as illustrating the value of manipulations and methodical exercise in the treatment of club-foot. The patient was born with a very marked, double equino-varus, and grew up to the age of four years with this deformity, walking in the manner peculiar to it. One day a nail, which was lying loose on the floor, ran into the left foot at the very part which came in contact with the ground in walking, and the child, in consequence, was unable to bear his weight on the foot. As, however, he was very active and impatient of repose, he tried hard to bring the toe of the foot in contact with the ground, and finally succeeded in doing so, and was thus enabled to walk again. The wound healed and the deformity gradually disappeared almost completely. The child was then induced by promises to make the same efforts with the right foot, and his success was in time equally marked. At the present time he is eleven years of age, and the only relics of his former deformity are a slightly abnormal shortness of the feet, and a slight contracture of the right tendo Achillis.—*The Lancet*.

**A CASE OF THIRD DENTITION.**—This case is reported in the *British Med. and Surg. Jour.* The subject had his four upper incisors extracted on account of neuralgic pains, when he was 47 years of age. Ten years afterwards the two upper teeth on the left side reappeared; they were smooth, thin, and transparent, and soon became loose. Two years later they were pushed out with the finger without difficulty.

**AID FOR PHYSICIANS AND THEIR FAMILIES WHO HAVE SUFFERED OR WILL SUFFER FROM THE EPIDEMIC OF YELLOW FEVER.**—The Medical Society of the County of New York, through its president and treasurer, has thus far received sixteen hundred dollars in contributions. The President, Dr. J. C. Peters, 83 Madison Ave., N. Y., has opened a special bank account for the purpose, and subscriptions from medical societies or individuals can be forwarded to him directly.

**YELLOW FEVER IN MEMPHIS.**—A private letter from Memphis states that one hundred more physicians are needed to care for the sick. In some of the hotels the new comers are placed in rooms from which the dead from the fever have been removed, and while the remains of the black vomit are seen upon the floor. Under such circumstances is it a wonder that the disease spreads?

**THE ROLL OF HONOR.**—The following are the additional deaths of physicians from yellow fever:

*Grenada, Miss.*—Sept. 9th, Dr. R. S. Ringgold, President Board of Health. Sept. 13th, Dr. George W. Woolfolk, volunteer from Paducah, Ky.

*Memphis, Tenn.*—Sept. 9th, Dr. McKim, volunteer from St. Louis. Sept. 10th, William C. Cone, volunteer from Franklin, Tenn. Sept. 13th, Dr. B. W. Avent. Sept. 14th, Dr. Nugent, volunteer from St. Louis, and Dr. Harlan, volunteer from Hot Springs, Ala. Sept. 15th, Dr. McGregor, volunteer from Tipton Co., Tenn. Sept. 16th, Dr. T. L. Bend, volunteer from Brownsville, Tenn., Dr. Meneses, volunteer from Nashville, Tenn., and Dr. J. R. Reimer, volunteer from Indianapolis, Ind.

*New Orleans, La.*—Sept. 9th, Dr. Charles Gallagher. Sept. 12th, Dr. Isidore Lehman. Sept. 13th, Dr. C. L. C. Herndon.

*Vicksburg, Miss.*—Sept. 12th, Dr. Norris, volunteer from Chattanooga, Tenn. Sept. 13th, Dr. Blichfeldt, volunteer from Chattanooga, Tenn., Dr. Potts, volunteer from La., and Dr. Sappington.

*Hickman, Ky.*—Sept. 13th, Dr. Blanton. Sept. 14th, Dr. Barnes. Sept. 16th, Dr. Cattell.



## Original Communications.

## ON "LITHOTRITY BY A SINGLE OPERATION," WITH CASES.

By W. H. VAN BUREN, M.D.,

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THERE has been a recognizable tendency of late years, since the operation of lithotritry has been generally adopted by surgeons, to diminish the number of sittings, and to avoid cases likely to require frequent repetition of the crushings. In the discussion at the Royal Medico-chirurgical Society of London, in March last, on Sir H. Thompson's remarkable paper presenting an analysis of 500 cases of stone in the male adult, the great specialist himself avowed that in his last hundred cases he had been drawing the line more closely, and reverting in a somewhat larger proportion of cases to lithotomy.\* In fact, the general tone of the discussion was not very favorable to lithotritry. Sir James Paget felt justified in regarding the operation as hardly susceptible of further improvement, and yet its results were often incomplete and unsatisfactory, and he concluded that, for his own part, were he to recommence an active surgical life, "he would begin with lithotomy, and reserve for lithotritry only those few cases in which the calculus could be got rid of in two or three sittings." Sir Henry, in his final summing up, pleads for extending the line a little farther, to include cases "where the stone might be crushed at three, or, at most, four sittings," beyond which point "he should mostly prefer to cut."

The strongest points made against lithotritry were: *cystitis*, "due to the injury done to the mucous membrane by sharp fragments of stone and by continued instrumentation;" the *atony* liable to be developed by it in old people, with a continuation of vesical irritability and phosphatic deposit; and the *liability to overlook minute fragments*, and the consequent unsatisfactory results.

These objections all practical lithotritrists will recognize as valid; but do they justify recurrence to lithotomy as their only remedy? Cannot lithotritry be rendered less imperfect?

With sincere respect for the eminent authorities just named, I venture to question their conclusions on these points as possibly premature, for there is reason to believe that a discovery has been made by an American surgeon which may take away from lithotritry its chiefest objection, and it may prove that, as an operation, it is yet susceptible of improvement. The evidence adduced by Prof. Bigelow, of Harvard,† goes so far towards the demonstration of "a tolerance by the bladder of protracted manipulation which has not been hitherto recognized," that we must at least suspend judgment until this evidence is either confirmed or disproved, after a fair trial.

Personally, I feel much confidence that Prof. Bigelow's novel proposition, that lithotritry may be safely accomplished at one sitting, will be successfully demonstrated, and that his discovery of the hitherto unrecognized tolerance of the bladder—for it is certainly to be regarded as a discovery, in the full sense

of the term—will, by its great practical value, modify the future of lithotritry.

As a contribution towards a final judgment on this interesting question, I append some cases, which, although less serious in character than those of Drs. Bigelow and Curtis, may, nevertheless, serve as evidence.

In the year 1865 I had the privilege of witnessing a private operation by Sir Henry Thompson, upon a gentleman with a small stone and a very irritable bladder, in whose case it was thought best to employ anesthesia and take measures to rid the bladder entirely of calculous matter at one sitting. The stone was rapidly reduced to small fragments, an evacuating catheter after a model devised by Nélaton introduced, and an india-rubber bulb somewhat larger than that of a Davidson's injecting apparatus attached to the catheter, with an intervening glass capsule to receive and retain the fragments. The tepid water in the bulb was then forced into the bladder, and as it was sucked out the calculous fragments collected rapidly in the glass bulb. The operation, which occupied over half an hour, was successful. Mr. Clover, who administered the chloroform, was credited with the contrivance for evacuation. I learned from Sir Henry that he considered this mode of operating risky, and only justifiable in exceptional cases, as an alternative for lithotomy.

I afterwards found, in Paris, an evacuating-pump of metal, and glass bottle, bearing Nélaton's name, but could get no satisfactory evidence that it had been successfully employed.

In March, 1876, I felt justified in attempting to empty the bladder of a calculous patient at one operation—a lady of sixty-six, partially hemiplegic and exceedingly hyperæsthetic, whose sufferings were constant and excessive. Her heart was also weak and dilated, but the ether was, nevertheless, borne well. The stone was phosphatic, and not large. The operation, which was not timed, lasted more than half an hour. The evacuating apparatus was by no means efficient. The urethral orifice was nicked on either side and the finger introduced for exploration, pressure upon the hypogastrium and from the section being employed to bring all parts of the surface of the bladder, as far as possible, in contact with it. The fragments were thoroughly removed, and the operation was followed by no vesical reaction, and by no bad symptoms. A week later there was temporary suppression of urine, and a mild convulsion, which passed off quietly. The patient died six months later, exhausted by the midsummer heats, having experienced much relief from the operation on her bladder.

I have, in several instances, greatly exceeded the conventional limit of five minutes for a lithotritry crushing, and never had cause to regret the infringement of the law, the propriety of which I considered, nevertheless, as based upon too much experience and too high authority to be questioned. In fact, I had taught it myself for years, and regarded its transgression as a risk of doubtful propriety; but the perusal of Prof. Bigelow's paper at once recalled incidents in past experience which accorded with his statements, and so far confirmed the reasonableness of his novel practice, as to determine Dr. Keyes and myself to test it in the following case, which was at that time in our hands:

Mr. I. L., 60, an over-sensitive and timorous person, a sufferer from bleeding piles since early life, has had for ten years occasional irritability with difficulty in emptying his bladder, which led him to habitually use a catheter. Within two months his

\* London Lancet, March 16, 1878, p. 365.

† "Lithotritry by a Single Operation," by Henry I. Bigelow, M.D., Professor of Surgery in Harvard University, and Surgeon to the Massachusetts General Hospital.—Amer. Jour. Med. Sci., Jan., 1878, p. 117.

pain has increased, the urine showing a considerable deposit, for which he came to the city for advice in January last. I found some atony of the bladder, and a soft stone of moderate size, and lithotripsy was commenced in the usual way. The first crushing, however, was more painful than he had anticipated; he voided very few fragments, and became demoralized, and his bladder symptoms also were aggravated. Under precisely similar circumstances I have been compelled to resort to lithotomy, but now decided to try rapid evacuation. On the 29th he was etherized, his stone reduced to small fragments, and, as far as we could judge, the bladder was entirely cleared. Time, about half an hour; quantity of calculous matter obtained not weighed. There was no reaction whatever on the part of the bladder, and the relief that followed was so prompt and decided that Mr. L. went home within ten days, with instructions to wash out his bladder daily with the "fountain-syringe," and return in a month for a final examination. For this operation neither Bigelow's lithotrite nor evacuating catheter could be had; only his new washing-bottle was used, with one of Nélaton's evacuating-tubes, and a lithotrite, which became impacted. When Mr. L. returned in March, fragments could still be detected by the searcher, and some had passed. He was again etherized, the fragments caught and crushed, and the bladder thoroughly washed out, this time with the new evacuating-catheter. Time, twenty-five minutes. No reaction whatever on the part of the bladder. In a week he returned home, considering himself well. I saw this gentleman again in July as he passed through the city; he was in improved health, free from vesical pain or irritability, washing out his bladder daily with the fountain-syringe. The latter precaution was required by the persisting atony, which, as far as I could judge, had not been aggravated by the prolonged sittings. His urine had nearly regained its normal appearance.

G. P., aged 63, merchant, a spare, gouty, nervous person, was brought to me by Dr. Ceccarini, March 19, 1878, complaining of great vesical irritability, which had been gradually increasing for four months. I found two smallish, hard, movable stones, a rigid urethra, a somewhat enlarged prostate, and moderately clear urine. On the 25th Mr. P. was etherized, and 123 grains of uric acid calculus obtained, by means of the new pumping-bottle, in about an hour. There was no inflammatory reaction on the part of the bladder, and the temperature did not exceed 101° until the third day, when it suddenly went up to 105°, coincidentally with a severe chill, which was followed by profuse sweating and some mental cloudiness. There was no recurrence of the chill; complete inability to pass water followed the operation, and it was regularly drawn, and the bladder washed out with a weak quinine solution. This remedy was also given freely internally, together with acetate and citrate of potass. The atony gradually passed off, and, by the end of the second week, Mr. P. was able to void his urine without pain, at normal intervals, and it was quite clear. Within the month he was entirely well, and has remained so, suffering only a little from a slightly enlarged prostate, and so much of atony only as prevented him from voiding the last drachm of residual urine. We had not yet been able to obtain the Bigelow evacuating-tubes, nor one of the lithotrites in working order. The instruments used for this case were: the Nélaton tube, the new washing-bottle, and one of our ordinary lithotrites of the Weiss-Thompson pattern, which Dr. Keyes had succeeded in having so modified in the blades that it worked absolutely with-

out impaction.\* This he used in this case, at my request, and the entire freedom from clogging, after a half-hour's steady work, and the uniform size of the hard uric acid fragments subsequently brought away, was exceedingly satisfactory.

I attribute the chill on the third day, in this case, to mechanical irritation of the rigid urethra by the frequent introduction of the catheter, which was rendered necessary by the atony. There was no increase of pus in the urine, nor hypogastric pain, nor other evidence of cystitis.

J. H. B., aged 46, married, perfectly healthy before his present illness, was brought to me by Dr. Messenger, in July, 1878, with a history of a sudden stoppage of his urine in April last, which had continued unrelieved for five days, and caused intense suffering. Since this he has had constant uneasiness and great pain and difficulty in passing water, which shows a copious deposit of pus andropy mucus. I found a general and somewhat acute cystitis, some atony—which had rendered him unable to completely empty his bladder without the catheter—and a small movable stone. Riding gave him intense pain, there was tenderness on hypogastric pressure, and his paroxysms of tenesmus were frequent and severe. Recognizing that the cystitis had been caused by the prolonged retention, and that the presence of the calculus was perpetuating it; and, also, that the atony, an obvious result of the over-distention, could only be remedied by restoring the bladder to a natural condition, I decided to remove the stone by rapid lithotripsy, after a few days' preparation. Accordingly, on the 23d of July, it was reduced to fragments, under ether, and pumped out, in twenty-five minutes. There was a distinct dark nucleus of uric acid from the kidney (which, by plugging the prostatic urethra, had caused the retention in April), and an external crust of phosphates, which had since been deposited upon this nucleus in the bladder. Under systematic washing out with quinine solution, there was steady improvement from the time of the operation, without an unfavorable symptom. As soon as he had learned to wash out his own bladder, Mr. B. left for the country entirely free from pain, and with a noticeable improvement already in his urine.

W. O. J., merchant, married, a stout person, weighing 230 lbs., was sent me in July, 1878, by Drs. Johnson and Clark, of Oswego county, N. Y. He urinated about every hour by day, and every two hours at night, with great pain and vesical tenesmus, and his urine, which is faintly acid, is loaded with pus and stringy deposit tinged with blood. It is nearly three years since he first began to pass gravel. I found a hard, movable stone, measuring in the lithotrite, in one of its diameters, seven-eighths of an inch. On account of an abnormal double sound of the heart, the exact significance of which was the subject of a difference of opinion, the ether was administered with great caution; but the stone, which was very hard, was thoroughly crushed and washed out, the operation lasting fifty minutes. Prompt relief to the tenesmus and the frequent calls followed the operation, and Mr. J. was able to pass his water without difficulty at steadily increasing intervals. The bladder was washed out daily, and the patient taught to perform this office for himself. He left for home, with his wife, on the tenth day.

On the 21st of August Mr. J. returned to the city for a final examination. His urine had lost its depos-

\* For a description of this modification, with woodcut, see *MEDICAL RECORD*, May 18, 1878, p. 388.



it, and was nearly normal; so also were the intervals between his calls, and he had no pains and no atony. Nothing was found in the bladder after careful search.

This patient, who thought he got some relief by occasionally introducing a catheter, which he had been taught to do by a quack, in order to inject a minute quantity of some wonderful panacea, hurt himself slightly with his instrument on the 19th of July, four days previous to the operation, and the accident was followed by a violent chill, succeeded by fever and sweating. After the crushing he had quinine and morphine, and no rise of temperature whatever was observed.

In this, as well as in the preceding case, both of which were operated upon on the same day, all the Bigelow instruments were used, except the lithotrite, which was substituted by Dr. Keyes' modified Weiss instrument, the working of which has thus far proved entirely satisfactory. The curved evacuating-tubes worked admirably. In the last case it was necessary to incise the meatus freely in order to receive the largest size. As their inventor suggests, care is required in managing the curved beak in the bladder, and the dimple in the bottle must be watched to detect obstruction promptly; but when the tube is rightly placed, the rapidity with which the fragments pour into the glass bulb is exceedingly satisfactory.

I record the next case only because it illustrates the value of the new evacuating apparatus in aiding diagnosis as to the presence of fragments in a pouched or trabeculated bladder, where the searcher or lithotrite cannot reach them.

C. M. H., aged 56, manufacturer, was brought to me in June, 1878, by his physician, Dr. J. O. Curtis, of Hartford, Connecticut, for frequent calls to void urine, and great pain in the act, the urine being offensive, and depositing pus and blood. Whilst in his usual health, two months before, he had been taken with retention of urine on a journey by rail, and he was not relieved until after several days of severe suffering. When first seen by Dr. C., he had all the symptoms of active inflammation of the bladder, and had been passing some white gravel. I found some enlargement of the prostate, and discovered a soft stone of moderate size in the bladder—which gave evidence of excessive sensitiveness, and also of thickening of its walls. As there was habitual retention of more or less putrid residual urine, which was evidently keeping up the acute purulent cystitis at the neck, and precipitating the phosphatic salts, I advised that the bladder should be systematically emptied and washed by means of the fountain-syringe and soft catheter, beginning very gently and gradually. He went home to carry out this course for a month, two daily washings being accomplished after the first week, and at the end of this time a report was received of decided improvement in the condition of the urine and of the bladder, and of the passage of several round white stones the size of a pea, with some rougher fragments. On his second visit to the city, in August, I found the bladder much more tolerant, but evidently trabeculated, and neither Dr. Keyes nor I could find any calculous matter with the searcher. But, as the characteristic pain and irritability were still present, I advised a search and thorough washing under ether, which was done on the 7th. Nothing could be found by the lithotrite, and the thickened edges of the bladder folds under moderate distention were very manifest. On the first application of the evacuating-tube and washing-bottle, however, there came quite a discharge of small, round, pea-like masses and rough sand. Subsequently a small frag-

ment was caught by a duck-bill lithotrite, and thorough washing repeated. The manipulation continued nearly forty minutes. There was no reaction; longer intervals and diminished sensibility followed at once. He had had some chills recently, under provocation of unusual irritation; but none followed the washing under ether, and Mr. H. returned home within the week, much gratified with his improvement.

In this case, the agglomerate of small phosphatic masses, rounded by the action of the bladder and cemented together by mucoid sediment and recently precipitated sand, which formed the stone I felt in June, had evidently become disintegrated under the systematic washing, and possibly the whole might have been brought away by this milder process. But the efficiency of the new evacuating apparatus, as well as its value in facilitating diagnosis, and the singular tolerance of the altered and recently acutely inflamed bladder under manipulation, were all very noticeable.

C. L. C., aged 58, merchant, married, was sent to me on the 27th of August, 1878, by Dr. M. R. Vedder, with urgent pain in the bladder and too frequent calls, which had come on eighteen months before, after a long ride and wetting, and, with occasional attacks of increased irritability, had continued ever since. The patient, who is ruddy and well nourished, has pain in urinating, and tenesmus after the act, and to avoid the latter has acquired the habit of milking himself. His urine is very slightly turbid, and deposits a little pus and blood. On introducing the searcher, I encountered a small stone, or a fragment, in the prostatic urethra, just behind the hole in the triangular ligament, and at this point the sensibility was extreme. With the finger in recto I recognized that the prostate was not large, and by lifting the beak of the searcher, was able to pass it over the calculous mass into the bladder, where I felt at least one more small stone. The examination was followed by a sharp attack of increased pain. After this subsided, an appointment was made for an operation on the 9th of September, at which I had in view a median operation, unless the calculus in the prostatic sinus could be pushed back into the bladder. Happily, under ether, this was accomplished, the lithotrite passed readily, and the calculi were well crushed. By slight incision of the meatus, the largest evacuating-tube was admitted, the washing-bottle adapted to it, and the fragments, which were uric acid, all brought away, the whole proceeding lasting about forty-five minutes.

There was no subsequent trouble. The urine has been voided without any of the old pain ever since the operation, and at increasing intervals. It is now retained three and a half to four hours.

If the safety of Prof. Bigelow's proposition as regards rapid lithotrity be finally demonstrated by adequate proof of the tolerance of the bladder, certain corollaries will necessarily follow: 1. That the cystitis which so often occurs after first crushings—regarded by Thompson and Cadge, in the discussion already quoted, as one of the "serious defects" of lithotrity—is due to the increased mechanical irritation of sharp fragments, and *not to "continued instrumentation."* 2. That the more thorough evacuation of the bladder attainable by the Bigelow method lessens materially the danger of leaving undiscovered fragments after lithotrity.

It remains to be seen whether the protracted manipulations of "lithotrity by a single operation" are more likely to cause atony than the shorter and more frequent sittings of ordinary lithotrity; and whether this disability will not be sooner removed by the

prompt restoration to health likely to follow evacuation of the bladder at one sitting. It may become evident on further experience that atony, like cystitis, is caused and kept up by the presence of irritating fragments in the bladder, rather than by repeated or even prolonged instrumentation.

I have found that the use of cooler water in the daily washing of the bladder by means of the fountain-syringe, and the gentle and effectual fomentation of the surface of the irritated organ thus accomplished, is the best local remedy for atony; and I believe strongly that the regular use of tepid water, in this way, for a time, after lithotripsy, by lessening pus formation and consequent phosphatic precipitation, will diminish the tendency to recurrence, or perpetuation, of calculous disease. In fact, the thorough washing which constitutes so prominent a feature in rapid lithotripsy has seemed to me to have a large share in securing for this proceeding the remarkable degree of tolerance of its manipulation which the bladder exhibits.

It may be within the knowledge of the reader that I have advocated for some years fomentation of the interior of the bladder by tepid or medicated waters—a proceeding greatly facilitated by the improved apparatus contrived by Dr. Keyes\*—as the most efficient remedy in many of its morbid conditions; and it is proper to add here that my confidence in this remedy has been strengthened by recent experience.

210 MADISON AVENUE, Sept. 17, 1878.

## THE TREATMENT OF SOME FORMS OF DYSPEPSIA (CHRONIC CATARRH OF THE STOMACH).

### PART II.

By WM. B. NEFTL, M.D.

NEW YORK.

IN answer to inquiries, especially regarding the dietetic management of dyspepsia, I write this continuation to my first article.

The principal rule, as mentioned before, is not to allow dyspeptics to limit their diet to a few articles taken in insufficient quantity, because this always leads to general anæmia and emaciation, with their dangerous consequences (brown atrophy or fatty degeneration of the heart, pernicious progressive anæmia, marastic thrombosis, etc.). On the contrary, all our efforts must be directed toward correcting the abnormal condition of the stomach, removing the distressing symptoms by the remedies spoken of in my first article, and thus enabling the patients to partake of a variety of wholesome food in the required quantity. Some think that only farinaceous substances ought to be allowed to dyspeptics, while others, on the contrary, exclusively recommend animal food, especially meat, or at least the juice of meat, beef-tea, and soups. In my opinion both kinds of food are useful and necessary. I find, however, that soups, beef-tea, and meat-juice cannot entirely replace meat in substance; they contain only the aqueous extract of meat, and leave some of its most important constituents (earthy phosphates and albumen) in the residuum. Moreover, soups and beef-tea do not agree with all dyspeptics. The extract of meat is but concentrated bouillon or beef-tea, and contains, besides extractive substances (creatine, etc.), the salts of potash and phosphoric

acid, which, although indispensable to the animal economy, are not sufficient alone for the nutrition of the system, and cannot be substituted for meat—the most nutritious and easily digested substance.

But how should meat be given to dyspeptics—raw, rare, or well cooked? The prevailing popular opinion, often shared even by the profession, is that the rarer the meat the easier it is digested. Sick persons, therefore, and especially when affected with diseases of the digestive organs, are given very rare meat, raw beef being considered the most appropriate for their weak digestion. However, experiments with artificial gastric juice, which I have repeated many times with the same result, prove that well-done meat is at least as easily digested as rare or raw meat, and even better. On the other hand, observations made on a large scale in the Infant Asylum of St. Petersburg\* have elucidated the fact that raw or rare meat, which was formerly used in that institution, especially for those affected with scrofula, rickets, chronic diarrhoea, etc., is the most frequent cause of tapeworms. Since then these observations have been verified in many other places, and have proved that the eating of raw or rare meat is the source of development of animal parasites. Very probably the disposition to such a development is greater in persons with a morbid condition of the alimentary canal. In cases of dyspepsia, the additional symptoms arising from the parasites may become the cause of diagnostic errors. Thus, I treated a lady suffering from chronic gastric catarrh who manifested strange and obscure symptoms. Of a good constitution, and mother of several healthy children, her symptoms would not yield to the ordinary treatment of dyspepsia, and were ascribed to a uterine trouble—a slight retroversion and enlargement of the uterus. She was subjected to a special local treatment, and though the condition of the uterus was very much improved by it, nevertheless her general health continued to be unsatisfactory. Besides dyspepsia, she complained of various distressing but obscure symptoms, so that her affection was considered more mental than physical, and she was treated as suffering from hysteria and incipient insanity. At last, the presence of a tapeworm was discovered, after the removal of which the gastric catarrh became more manageable, and the patient recovered. In this case, to the distressing symptoms of the gastric catarrh were superadded the obscure symptoms produced by the tapeworm, developed undoubtedly from the raw meat methodically given to the patient in order to cure the gastric catarrh.

Raw pork is by far the most dangerous of all meats, the hog being pre-eminently the bearer of the most destructive animal parasites (cysticerci, echinococcus, tenia, trichina spiralis, distomum hepaticum, paramœcium coli, etc.), which may invade the interior of the eye, the brain, and other organs of the consumer, thus causing incurable diseases and death.

When working in Virchow's Pathological Institute, at the time he was making researches on the trichina spiralis, I had vast opportunities of examining trichinae in animals and men, and was amazed at the mischief wrought by trichinous pork, often even unsuspected during the life of patients. The acute symptoms were usually ascribed to typhoid fever or other infectious diseases, and even at the post-mortem the real cause of death would remain unrevealed, if the muscles were not subjected to a careful microscopical examination.

The following case, from my own practice, illus-

\* The "Injection of the Bladder." *Ann. Journ. of Medical Sciences*, April, 1875.

\* Weiss: *Journal für Kinderkrankheiten*, 1851, p. 284.



trates the danger of eating raw pork, it being the cause of development of cysticercus of the brain:

Mr. C., forty three years old, very robust, of an excellent constitution, and without any hereditary morbid disposition, but completely blind, and suffering from frequent epileptic fits and headaches, consulted me in June, 1874. Some years previous he went to California, where he engaged in mining, and afterward in the cattle trade. He worked very hard, often exposed to inclement weather, and had to live sometimes entirely on raw pork. Nevertheless, he continued in perfect health until suddenly attacked with a severe epileptic fit. Such attacks first appeared at long intervals, gradually returning oftener; his vision became dim, and finally was completely lost. He was examined by several oculists, who found the internal structures of the eye normal, and so also were the other organs of the body. He had been under the care of most distinguished neuropathologists, and the diagnosis was an organic cerebral affection, probably a tumor, but no exact definition of the disease was given. I had no opportunity of observing the patient to the final termination of the disease, but I am convinced that his affection was caused by the existence of cysticerci in the brain. Formerly it was impossible to diagnosticate during life cysticerci of the brain, unless the cerebral symptoms were accompanied by cysticerci in the eye or under the skin. Even Cruveilhier, in his *Anatomie Pathologique*, says: "Je ne connais rien de positif à cet égard," and only recently Griesinger\* pointed out the group of symptoms to serve as a guide for the diagnosis, and to him, therefore, belongs the merit of having the first recognized cysticercus of the brain in the living human subject. The post-mortem examinations and the clinical observations of all the published cases of cysticerci of the brain have elucidated the following two important facts, namely, that in the majority of cases the cysticerci are found in the periphery of the brain, in the gray cortical substance, and in the meninges (especially in the pia mater), and that they scarcely ever cause paralysis. These two facts were considered by Griesinger in close relation to each other. In the light of modern researches made by Hitzig, Ferrier, and others, this coincidence can now be explained, as also the fact that cysticerci of the brain cause morbid phenomena, principally in the psychomotor sphere. The epileptic convulsions are sometimes limited to the one opposite side, but more frequently involve both sides of the body, the cysticerci usually occupying symmetrical parts of the convex surface of the hemispheres. The epilepsy caused by cysticerci attacks adults, often robust persons over forty, without any hereditary disposition, and without any traumatic, syphilitic, cardiac, or other cause; it is often accompanied with derangements in the psychical sphere, with deafness, blindness, headache, abnormal pupils, somnolence, tremor, and many other symptoms somewhat resembling the condition of general paralysis of the insane.

Westphal,† who likewise made the diagnosis of cysticerci in the brain, verified at the post-mortem, describes, in addition, peculiar characteristic movements (automatic gesticulations) exhibited by the patients. These gesticulations very probably depend on the irritation of the cortical motor centres produced by the cysticerci, and Samt‡ has shown that they may be

caused by any inflammatory irritation of the cortical surface, and therefore are often met with in general paralysis of the insane.

The study of animal parasites is of great importance both to the physician and the community at large, a considerable percentage of whom suffer and die from want of knowledge of the subject and necessary precautions. Thus the *anchylostomum duodenale* causes great ravages among the Egyptians and in some other places. In Iceland the sixth part of the population die from diseases produced by the *echinococcus*, and in the tropic regions of the old and new world the most frequent and serious affections arise from animal parasites. Even among the most civilized communities diseases caused by entozoa are very common, often dangerous and fatal. The absence or neglect of prophylactic measures shows how little the subject has been popularized as yet, even among the profession. Numerous observations and direct experiments have proved beyond doubt that the principal source of development of animal parasites in the human subject is the eating of raw or not sufficiently cooked meat and fish. Referring the reader to the works of Davaine, Küchenmeister, and especially Leuckart for details,\* I give here only a short sketch of some of the most frequent animal parasites, in order to make clear the prophylactic measures bearing on the diet.

The tapeworms (cestodes), though known to the ancients, have been thoroughly studied only recently as regards their mode of development and metamorphoses. The tapeworms which live in the human body (small intestine) are the *tænia solium*, *tænia medio-canellata*, *tænia nana*, and others, and also *bothriocephalus latus* and *bothriocephalus cordatus*. The different cysticerci, which are the undeveloped form of these parasites, often reach a considerable size, and are most dangerous because they may inhabit all the important organs of the human body. The tapeworm represents a whole colony of individuals (proglottides), the mature ones containing hermaphroditic sexual organs, eggs, and embryones. The tapeworm develops itself only in the alimentary canal of certain animals, whence portions (proglottides or their eggs or embryones) are eliminated, and if swallowed by another animal do not directly develop into a tapeworm, but into its primitive form (cysticercus). These cystic worms make depredations in different organs (cellular tissue, muscles, liver, kidneys, lungs, eyes, brain), but never develop into sexually mature creatures until eaten with the flesh they inhabit by another animal. When they enter the alimentary canal of the latter, they assume again the original form of a tapeworm, maturing into individuals with eggs and embryones. The different generations present, therefore, different metamorphoses. The primitive or youthful form, destitute of sexual organs—the cysticerci—live in one animal, and develop into the mature sexual form—*tæniæ*—only in the intestinal canal of another.

Into the human body the cysticerci are carried with

\* I most earnestly recommend the study of helminthology, which recently has shed so much light on our biological knowledge, as, for instance, on the doctrine of spontaneous generation, etc. Especially from Leuckart's work (*Die menschlichen Parasiten und die von ihnen herrührenden Krankheiten*), the practitioner will learn the causes of many grave diseases, and receive hints how to prevent them, while the student of histology and embryology will find in this work most appropriate subjects for investigations. For example, he can learn to observe in a single specimen of *Asearis nigrovirens* (which can be found almost in every brown frog during summer) all the phenomena of embryonic development. One such specimen contains many hundreds of eggs in all the stages of development toward a living creature with its various tissues and organs.

\* Griesinger: *Gesammelte Abhandlungen*. Berlin, 1872. Cysticercus und ihre Diagnose. Bd. I., p. 399.

† Westphal: *Archiv für Psychiatrie und Nervenkrankheiten*, Bd. 4, p. 482.

‡ Samt: *Zur Pathologie der Rinde*, *Archiv f. Psych. und Nervenkr.*, Bd. 5, p. 201.

the flesh of animals which serve as food (they are almost always present in the hog), and develop into tapeworms in the intestinal canal. The ova or embryos of the latter, which develop into cysticerci in the human body, enter it in two different ways. First, through self-infection, when by vomiting fragments of an existing tapeworm are thrown into the stomach and dissolved by the gastric juice, thus allowing the embryos slip out. They do not, however, remain long in the stomach, but with the aid of their hooks pass through its wall and invade internal organs. Or the eggs of a tapeworm from a dog, cat, or other animal, with whom the patients come in frequent contact, get in some way or other into the food or are otherwise swallowed. This is very often the case in Iceland and in other places, where men live together with animals. The dog being the only bearer of the *tenia echinococcus*, from it therefore originate the *echinococcus* cysts in the man and pig. The licking of hands by dogs, and the kissing of animals, may perhaps be the medium of communicating the eggs. They may, however, enter the stomach with the raw vegetables and fruit, if the latter are not previously cleaned, also by drinking unclean water from tanks or ponds.

Of the trematodes I will only mention the most frequently met with, the *distomum hepaticum* and *distomum hamatobium*. The places of predilection of the *distomum hepaticum* are the biliary ducts and the gall-bladder, whence they often penetrate into the portal and hepatic veins, and through the latter find their way into the general venous circulation. The young worms probably pass from the intestinal canal into the biliary ducts and penetrate into the blood-vessels. According to Küchenmeister (*Menschliche Parasiten*) the conglomerated eggs of the *distomum hepaticum* may occasionally become the nuclei of gall-stones. Secondly the liver becomes affected, and ascites follows.

One of the most dangerous parasites known is the *distomum hamatobium*, first discovered by Bilharz. The sexually developed worms are found mostly in the trunk and branches of the portal vein, and in the venous plexuses of the urinary bladder and of the rectum. They live on blood, and their intestinal canal is found full of blood-corpuscles. The great danger this parasite inflicts upon the patients is caused by the accumulation of its innumerable eggs in the mucous membranes and submucous tissue of the urinary organs and of the large intestine, which leads to severe inflammation and other affections of these organs. This parasite makes great devastations in Egypt. Griesinger found there, in 363 autopsies made by him, 117 affections of the urinary organs caused by *distomum hamatobium*, and according to Bilharz scarcely half of the adult population of Egypt remain free from it. Besides affections of the urinary organs, which undermine the general health and may terminate fatally, the *distomum* causes affections of the large intestine, accompanied with diarrhea and assuming the form of dysentery, often with a fatal result.

I shall omit considering the different human parasites belonging to the nematodes (*ascaris*, *oxyurus*), as they are more generally known, and are common all over the world, one-half of the children between three and ten years, and a great number of adults, suffering from them everywhere. For details I refer the reader to the work of Leuckart and that of Davaine (*Traité des Entozoaires*, p. 121). I shall make a few remarks only in reference to *trichina spiralis*. This nematode, the most dangerous of human parasites,

exists, like the cestodes, in two distinct metamorphoses. In the striated muscles it remains in its encysted form, with undeveloped rudimentary sexual organs, for many years (even twenty or more), until its death or that of its possessor, without undergoing any noticeable change except the thickening or calcification of its capsules. But as soon as the muscles infected with trichina are introduced into the stomach of any appropriate animal, or especially into the human stomach, the capsules are dissolved by the gastric juice, and the trichinae begin a new and rapid development. They grow in size, and the generative organs of both male and female worms develop wonderfully quick. At the end of twenty-four or forty-eight hours the trichinae are found in the small intestine filled with sperm and ova, and soon numerous embryos become free, each female producing at least 1,500. The intestinal trichina is the developed, sexually mature form of this parasite. While with cestodes self-infection occurs seldom and in exceptional cases, with trichina, on the contrary, it is a rule. The embryos of the intestinal trichinae penetrate through the intestinal canal by way of the loose connective tissue (Leuckart), or the lymphatics (Virchow), or the blood-vessels (Zenker and others), into the muscles, where they subsequently become encysted and remain permanently. The intestinal trichinae are viviparous and endowed with great fecundity. During their short existence in the intestinal canal (they live about two months, a great contrast with the longevity of the trichinae of the muscles) many millions of the young ones infest all the striated muscles, especially the small muscles (of the eye, throat, etc.), the heart alone making an exception. The invasion of the muscles by the trichinae at first causes local disturbance—diarrhea and muscular pain—but soon follows a general disturbance of the system and febrile reaction resembling typhoid fever, with prostration, loss of muscular power, collapse, hoarseness, perspiration, and edema. This morbid condition, which often terminates fatally, is caused by the sudden destruction of muscular tissue, the products of decomposition of which act deleteriously upon the system. The mass of encysted trichinae is sometimes larger than the remaining muscular tissue.

As a single trichinous hog may infect a large number of individuals, the disease trichinosis often appears as an epidemic.

We are not acquainted with any fact proving that man is primarily infected with the eggs of trichinae, as is the case with koprophage animals (pigs, rats); therefore the only source of infection for man is pork (unless rats, or any other animal feeding on them, is taken as food). The number of trichinous hogs varies, according to the prophylactic measures used in raising them. In this country, about one hog out of forty may be considered as infected with trichinae, and this frequency of infection is attributed to the custom of feeding hogs with the refuse of slaughter-houses, and allowing them to devour rats. It seems strange that with the general consumption of pork, cases of trichinosis are not more frequent; but this is owing to the fact that pork is very seldom eaten raw, but mostly cooked, salted, or smoked. The experiments of Leuckart and others show that trichinae are endowed with a higher degree of resistance than even the cysticerci to cooking processes, to putrefaction, or exposure to low temperatures. Trichinuous meat, subjected to extreme cold during several days in winter, and completely frozen, produced trichinosis in a rabbit.

The trichinae are killed only by a temperature o



150° or 155° Fahr., which coagulates their albumen; but to 126° Fahr. they can be subjected with impunity for any length of time. Therefore, to make a trichinous piece of meat innocuous, it ought to be under boiling heat for a considerable time, so that its interior should not present a rare, bloody appearance, where the trichinae are still alive, and able to infect the consumer. Ham and sausage ought to be cooked in a similar way, as rare trichinous meat invariably produces trichinosis. Salt and smoke kill trichinae only if, like heat, they are made to act upon them thoroughly; insufficient salting and smoking do not preserve from infection. The best and simplest means of preventing trichinosis is therefore to have the meat thoroughly cooked, salted, or smoked.

Trichinosis is easily diagnosed. During the first weeks after the infection, we find in the diarrhoic mucous pregnant trichinae with living embryos (intestinal trichinae). In the later stages of the disease, the microscopic examination of a small piece of muscular tissue (taken with a harpoon) will reveal the muscular trichinae.

After this digression from the principal subject, we may well consider if it is not our duty to warn patients and the public at large against the use of raw meat, explaining the danger to health and life from infection with animal parasites.

The rational prophylaxis against animal parasites consists principally in the cleanliness about the house and kitchen; to have the meat well cooked, and not to partake of it when raw or underdone; to thoroughly cleanse or wash vegetables and fruit, and not to drink unclean, stagnant water; to remove from the house and kitchen dogs, cats, and other animals.

The drinking of fresh blood, now gaining ground, ought to be condemned; should further experience prove that the blood contains some peculiar dietetic virtues not possessed by milk and other animal products, then it ought to be taken boiled.

From a dietetic point of view, there seems to be little difference whether beef, mutton, or any other kind of meat is taken, provided it be well and palatably prepared—not greasy or burnt. In dyspepsia a variety is rather useful, and there can be no objection to any kind of poultry and game (well cooked), although the flesh of some fowl (goose, duck, etc.) is difficult to digest, and has to be used with discretion. Next to meat, fish is very nourishing and digestible, but must be well cooked, as it also may become a source of infection with animal parasites (bothriocephalus latus, etc., from salmon and other fishes). As an article of diet, it is not equal to meat, and the assumption that fish furnishes the system, especially the nervous centres, with phosphorus, is exaggerated, as a great many other articles of diet equally supply phosphorus (meat, milk, eggs, bread, etc.).

A most excellent article of diet for dyspeptics is unquestionably fresh milk (with alkaline reaction); but it must be unadulterated and come from healthy (not tubercular or otherwise diseased) cows. Klebs\* experimentally produced tuberculosis in young animals by feeding them with milk from tubercular cows. In recommending milk to dyspeptics we must be sure of its quality, and suspicious milk ought always to be thoroughly boiled. Cream, which is nothing but fat, cannot be a substitute for milk, and is rather injurious to dyspeptics, unless used instead of butter, with amylaceous and farinaceous substances.

Eggs, *a priori*, are the most nutritious dietetic ar-

ticle, considering that they contain everything necessary for the formation of a vertebrate animal. Nevertheless, some people think that eggs disagree with them, and produce indigestion. This can only be the case when eggs are not fresh, and undergoing decomposition, or it may be merely a preconceived idea in persons who in their childhood ate a bad egg, which produced indigestion and vomiting, and they remain all their life under that impression. It makes little difference whether the eggs are cooked soft or hard, as the albumen (whether previously coagulated or not) is always transformed by the gastric juice into the soluble modification. But when eggs are not perfectly fresh, it is best to cook them thoroughly, in order to arrest their decomposition (putrefaction), and prevent indigestion.

The vegetable dietetic substances from the classes of the cerealia and leguminosa contain the inorganic salts of the blood—potassium and phosphoric acid, in combination with organic substances belonging to the groups of albuminates, hydrocarbons, and fats.

Bread is the representative of the nutritive vegetable substances, and contains the largest amount of albuminous matter. For dyspeptics it ought to contain no admixture of fat, milk, sugar, molasses, etc., but be made very light, simply with water, salt, and good yeast, and well baked. The crust formed in well-baked bread by the greatest amount of heat acting upon the external layers contains the products of decomposition (starch-gum, etc.), which add to the flavor of the bread, make it more palatable, and increase its digestive properties.

Peas, beans, and other leguminosa are also very nutritious, containing much albuminous substances (legumin or vegetable casein), and also lecithin and cholestearine. In cooking them for dyspeptics their capsules ought to be eliminated, as they cause flatulence.

The nutritive properties of potatoes are below those of the above-mentioned vegetables. They contain from 70 to 81 per cent. of water, while the others contain from 9 to 19 per cent., and of albuminous substances potatoes contain only  $2\frac{1}{2}$  per cent. On the other hand, they have 16 to 23 per cent. of starch, and their ash contains 60 per cent. of potassium and 13 per cent. of phosphoric acid, thus proving their great value for the animal economy when compared with the ash of blood. On that account they are useful, for instance, in preventing scurvy on ships. However, as their nutritive value, in a given quantity, is less than that of the other vegetables already enumerated, dyspeptics must forego eating too many potatoes.

The different kinds of amylaceous substances—arrow-root, sago, tapioca—are identical with the starch of potatoes. Dyspeptics can partake of them with benefit.

Fresh fruits contain over 71 per cent. of water, and therefore do not belong to a nourishing diet. They contain principally sugar, gum, cellulose in combination with different organic acids. But their salts are those of the blood, and on that account, as well as for their organic acids, they are reckoned among the refreshing dietetic substances. Especially lemon-juice contains a large amount of potassic salts, so indispensable to the animal organism. In chronic gastric catarrh, however, fresh fruit are not well digested, neither are the saccharine and acid substances in general.

Vegetables such as beets, asparagus, cabbage, lettuce, spinach, etc., though containing but little of the nutritive substances, are nevertheless of great importance to the animal economy, because their salts are

\* Klebs: Die künstliche Erzeugung der Tuberculose. Arch. f. exper. Pathologie und Pharmacologie. Bd. I., p. 163.

the same as those of the blood. Unfortunately they are not easily digested by dyspeptics, and may cause pains; hence, they should be avoided during the existence of gastric catarrh.

As regards beverages, dyspeptics ought to be allowed to drink, besides water in sufficient quantity, tea, coffee, and even chocolate, if it agrees with them. Although these articles are often prohibited to patients in general, they are, nevertheless, very wholesome and useful beverages. They all contain the same active principle—a nitrogenous organic basis—thein, caffeine, theobromin, which are chemically and physiologically identical, and which act upon the system in the same way as the extractive substances of meat. The infusion of tea contains, besides, a considerable amount of soluble salts of iron and manganese. Their ash is similar to that of the blood. These beverages stimulate in a moderate degree the muscular and nervous systems, improve the circulation, and thus increase our physical and mental productivity. However, they ought not to be indulged in to excess, as then they would diminish the appetite, and the amount of food requisite to support a healthy condition of the system would not be taken.

We are often asked which diet is the most wholesome, vegetable or animal, and if man could better subsist on exclusively vegetable food (vegetarianism). This question, though not bearing directly upon our subject, is yet, as regards dietetics in general, of great interest to the physician and the community.

Theoretically, the animal and the vegetable food each contains all the constituent parts necessary for the nutrition and functions of the animal economy—albuminates, hydrocarbons, fats, the necessary salts, and extractive substances.

On the other hand, the digestive apparatus shows conclusively that man is intended to be omnivorous, and our instincts and experience prove that a mixed diet—of both vegetable and animal substances—is the most appropriate.

There exist experiments, as it were, on a large scale which well demonstrate the relative value of exclusive animal or vegetable food.

The nomadic inhabitants of the Kirghis steppes (Central Asia) are a healthy, muscular, strongly built race. They live exclusively on animal food (mutton and horse flesh), and have no bread or vegetables of any kind. Their principal beverage is fermented mare's milk, called Kumys, to the important dietetic properties of which I was the first to call the attention of the profession.\* I had an opportunity of observing them for nearly two years, when a member of an expedition sent by the Russian government to Central Asia in 1857, and noticed the remarkable fact that the Kirghis are entirely exempt from pulmonary consumption.

As a contrast to this physically robust race of carnivores, we may mention the Japanese, who until quite recently lived almost exclusively on a vegetable diet, with an addition of fish. According to Wernich (formerly of Berlin, and now professor of medicine in Jeddo),† the Japanese are physically a weak race, exhibiting a peculiar debility of the organs of circulation, which is probably the cause of the disposition to their gravest and fatal endemic disease, "Kakke." It is in many respects similar to the fear-

ful endemic disease, "Beriberi," of East India and the adjacent islands, the inhabitants of which are also mostly vegetarians. The Japanese react very sluggishly to irritants, even the most intense ones calling forth but an asthenic fever, and sometimes no fever at all.

Convalescents from gastric catarrh often inquire whether it would be best, after their complete recovery, to abstain from entirely satisfying the appetite, the prevailing opinion being that people should generally eat less than they feel inclined to. This popular opinion seems erroneous, as under normal conditions the appetite ought to be the best guide for the quantity and quality of food required for the system. However, we know from experience that the appetite may become deranged and mislead us. Moreover, a mere habit may prompt people to eat too little or too much, and the French saying, "L'appétit vient en mangeant," is very often correct. But of the two evils—too much or too little food—the latter certainly is the most objectionable, for it invariably leads to a deficiency in the nutrition of some organ or of the whole system. As we cannot always possibly determine the quantity of ingredients necessary for the nutrition of each tissue and organ, it is far better to present to the system a somewhat larger supply of food, from which it will select the necessary materials, and eliminate the superfluous.

Some people are under the impression that it is best to abstain from nourishing animal food during the heat of the summer, and live mostly on vegetables and fruit. My experience, however, in Central Asia and here, has convinced me that we are better able to resist the effects of intense heat by partaking of nourishing food—a mixed animal and vegetable diet—and by keeping, at the same time, the skin in a good condition for its enhanced function—to perspire freely.

The diet and treatment of patients affected with chronic gastric catarrh, accompanying ulcer of the stomach, must necessarily be different from those employed for dyspeptics with the idiopathic form. In the first case the food must be given only in a liquid state—beef-tea, milk, etc. The most efficient treatment consists, according to Hertzka,\* of repeated doses (on the empty stomach) of chloral (which acts as an antiseptic and narcotic) and of Carlsbad water. I have no personal experience as regards the efficacy in this disease of rectal alimentation, to the exclusion of all nourishment through the stomach.

Chronic gastric catarrh of the most obstinate kind sometimes accompanies chronic poisoning from lead, zinc, mercury, and arsenic.

The cachectic appearance of such patients, and the insidious manner in which the saturation of the system with the poison takes place, are often a source of diagnostic errors, the existence of carcinoma being frequently suspected. I treated a patient (Mr. V.), in June and July, 1878, who was in the highest degree emaciated, cachectic looking, and feeble; he could scarcely eat anything, had a great deal of gastralgia, dilatation of the stomach, eructations, and costiveness. For many years he slept in a room filled with the dust from manufactured articles of india-rubber, impregnated with salts of lead, and his disease was a source of diagnostic and therapeutic errors. He is now doing well.

Such cases of toxic gastric catarrh require, besides the dietetic and medicinal treatment recom-

\* Beobachtungen aus den Kirgisen-Steppen von Hofrath Dr. Neffel. Würzburger medicinische Zeitschrift, 1860, Bd. I., p. 61.

† Wernich: Klinische Untersuchungen über die japanische Varietät der Beriberi Krankheit. Virchow's Archiv, Bd. Lxxi., Heft 3.

\* Hertzka: Zur Behandlung des Magengeschwürs. Centralbl. f. d. med. Wiss., 1878, No. 26.



mended in my first article, a specific treatment of the lead, zinc, or other poisoning.

Gastric catarrh may also accompany diseases of the pancreas. The diagnosis is possible if a tumor can be felt, or in the earlier stages, when the fatty substances of the food are evacuated by the bowels unchanged; but later, when gastrectasia and the morbid fermentation have reached a very high degree, and when almost every kind of food remains undigested and is thrown up, the diagnosis becomes exceedingly uncertain.

Very frequently gastralgia with gastrectasia and a variety of distressing local and general symptoms constitute a morbid condition, which I designate as hysterical dyspepsia. Its real nature is often misunderstood, and thus a high degree of anemia and emaciation is allowed to be developed and to continue for years until either pregnancy or some intercurrent disease produce a change in the chronic disorder.

The following case may serve as an illustration:

Mrs. B., wife of a physician, about thirty years old, came under my care, June 7, 1878. Though of a good constitution, and formerly healthy, has been an invalid for the last four years, and is greatly emaciated and anemic. She suffers a great deal from gastralgia, eructations, costiveness, and general debility; she scarcely ever walks, and for the greatest part remains in bed. The best digestible kind of food increases all the morbid symptoms, and therefore she eats so little that it is barely sufficient to sustain life. She tried various methods of treatment and changes of air, but all without avail. Her gastric symptoms were ascribed to an antelexion, and although a special treatment improved the local affection, the disease remained in *statu quo*. Last summer she was very ill in the country, and therefore decided to remain this year in the city to be nearer to medical assistance. I found the stomach much dilated, but all other organs normal. The patient said that, except milk, she could never partake of any nourishing food (meat, bread, eggs), as it would invariably make her suffer the greatest distress, and she would have to remain in bed, and spend sleepless nights. But as for cheese, sardines, and other articles, considered indigestible, she was able to eat them, with impunity, and they agreed with her very well. She abstained, however, from taking them, at the advice of her physicians. I applied an intense induced current to the dilated stomach, and the application was followed by an immediate relief and a sensation of general comfort. I advised her to eat nourishing food, especially meat, in gradually increasing quantities, to take iron with her meals, diluted hydrochloric acid after meals, and to continue daily the electrical treatment. Her general health improved rapidly, and the gastric symptoms began to disappear. In this case the fact that the patient could eat sardines and other indigestible substances, which would have been impossible in the ordinary form of chronic gastric catarrh, was suggestive of the hysterical nature of the disease.

Gastric catarrh of long standing often leads to some neuralgic affections, of which I shall give a detailed account in a separate paper. Here I shall merely mention that the occipital or occipito-cervical pain is a very common symptom in chronic dyspepsia, and readily yields to the galvanic treatment employed in conjunction with the treatment of gastric catarrh. However, it ought not to be confounded with incipient cervical pachymeningitis, which is a grave and quite different affection.

## A CASE OF ASTIGMATISM WITHOUT ASTHENOPIA OR CONSCIOUSNESS OF IMPERFECT VISION.

By DAVID WEBSTER, M.D.,

NEW YORK.

The following case is considered of sufficient interest for publication for several reasons. In the first place, it may be thought remarkable, that although the patient sees nearly three times as well with his left eye as with his right, he has arrived at the age of forty-two without ever having had his attention called to the fact. He had not the remotest suspicion that his vision was at all imperfect with either eye. Again, it may be thought uncommon that with mixed astigmatism in both eyes, and with one more astigmatic than the other, he should not have suffered from some of the many symptoms of asthenopia, always liable to be brought on in such eyes by the straining of the focalizing apparatus to overcome the error of refraction. It is remarkable also, that when this straining of the muscles of accommodation was so increased, by the addition of presbyopia to the previously existing refractive error, that it could no longer conceal its effects, instead of the more common asthenopic symptoms, such as pain, blurring of vision, lachrymation, etc., the first intimation should come in the form of styas and their offspring, chalazia. This case goes to support Dr. B. St. John Roosa's theory, of which I have no doubt of the correctness, that blepharitis may be, and frequently is, caused by the efforts of the accommodative apparatus in overcoming errors of refraction.

It will be observed that the occupation of Mr. S., that of a clerk, has always entailed a close use of his eyes, which renders the case more remarkable than if it had occurred in the person of a farmer.

Thos. P. S., aged 42, clerk, consulted Dr. C. R. Agnew, August 23, 1878. He states that some time in the summer, his left eye "got out of tune." The lower lid looked red and was somewhat swollen. He went to his family physician, who examined his eyelid, and said he was going to have a sty. The doctor cauterized his lower palpebral conjunctiva in the hope of aborting it. The patient has since used slippery elm poultices, Pond's Extract, etc. There is now some blepharitis and two small chalazia of the lower lid. Right eye, vision =  $\frac{2}{30}$  ( $\frac{1}{4}$ ) without a glass; vision =  $\frac{2}{20}$  with  $-\frac{1}{16}$ c. axis  $10^\circ$   $\subset$  +  $\frac{1}{16}$ c. axis  $100^\circ$ . Left eye, vision =  $\frac{2}{30}$  ( $\frac{3}{4}$ ) without a glass; vision =  $\frac{2}{20}$  with  $-\frac{1}{16}$ c. axis  $180^\circ$   $\subset$  +  $\frac{1}{16}$ c. axis  $90^\circ$ . No insufficiency by prisms and colored glass. Ophthalmoscopic examination shows no lesion. The patient never had any sense of insufficiency in vision or in the endurance of his eyes, nor did he ever notice that he saw better with one eye than with the other. In fact, nothing ever called his attention to his eyes until this inflammation occurred in the lower lid of his left eye.

As regards the treatment, the indications are, first get rid of the tarsal tumors by operation, then prescribe suitable spectacles for the patient.

19 EAST THIRTY-NINTH STREET.

PARIS EXPOSITION AWARDS.—William R. Warner & Co., of Philadelphia, have received the highest award (a bronze medal) for sugar-coated pills; Hance Bros. & White, of Philadelphia, a similar medal (bronze) for fluid extracts; and John Wyeth & Bro., of Philadelphia, likewise a bronze medal for their compressed pills. These medals are the highest given for the articles named.

## A CASE OF SCIATICA OF SIX MONTHS' DURATION CURED BY STRETCHING THE SCIATIC NERVE.

By WILLIAM A. BYRD, M.D.,

QUINCY, ILLINOIS.

APRIL 13, 1878, I saw Christopher Goll, a German weaver and dyer, aged 56, who had been confined to his bed for some five months with sciatica of the right side. During the most of the time he had been under treatment, and had been blistered, cupped, rubbed with irritating liniments, treated constitutionally and locally with electricity and other things, with no relief whatever. His general health was good, but the pain was so great that he got but little rest, having to lie in bed upon his left side, with the right thigh flexed upon the body and the leg upon the thigh. Any effort to change the position of the thigh or leg was followed by excessive pain all along the course of the sciatic nerve, from the heel to the small of the back.

Having had excellent success in a case of long-standing sciatica by injecting hypodermically a two per cent. solution of carbolic acid along the course of the sciatic nerve just back of and below the trochanter major, I concluded to try it in this case. Every other day for four weeks thirty minims of the solution was injected; still there was no relief except when under the influence of anodynes. I now determined to cut down upon and stretch the sciatic nerve.

May 27th, assisted by Drs. M. Rooney, J. F. Durant, L. H. Cohen, W. C. Pipmo, and J. A. Wagner, I exposed the sciatic nerve by making an incision four inches long, commencing at the lower edge of the gluteus maximus muscle and extending downward in the sulcus between the vastus externus and long head of the biceps cruris muscles. Parting the muscles with the handle of the scalpel, the nerve was exposed and raised by hooking the index-finger under it. Tension to the extent of almost raising the limb was made upon the nerve; this caused it to become slightly elongated, but giving way of tissue was not felt to have occurred during the stretching. The nerve was carefully replaced and the wound closed with interrupted iron wire sutures, and covered with a compress of soft, dry cloth retained with a roller. There was not a drachm of blood lost. One week afterwards the sutures were removed, the wound having healed without a drop of pus having formed.

The pain was relieved as soon as the operation was ended. He could immediately lie upon his back, and even upon the right side.

There was still contracture of the flexor muscles, which gradually gave way with exercise, which he began to take the second week after the operation. There was paralysis of feeling in all the muscles supplied by the sciatic nerve, that gradually left him, it being nearly six weeks before he was entirely free from it; the upper portion of the gastrocnemius muscle being the last to regain sensation, and the outer portion of the muscle the very last.

As the paralysis disappeared the muscles would ache—not pain—for three or four days, when complete sensation would ensue.

During his convalescence I put him on no treatment except careful dieting, by that means being sure that it was the operation that gave him relief.

He now claims to be perfectly well.

This operation only dates from 1872, but has already achieved magnificent results, and I believe has greater conquests to make in the future. I make no

comment upon this case, but refer the reader to the *American Medical Bi-Weekly* for December 8, 1877, for an admirable abstract from the *Medical Times and Gazette* of a review of Professor Paul Vogt's—of the University Greifswald—book upon nerve-stretching. It is so well written, so clear and concise, that I will not mar it by quoting.

327 JERSEY STREET, July 22, 1878.

## Progress of Medical Science.

SKENE ON LACERATIONS OF THE CERVIX UTERI.—The repair of the lacerated cervix uteri being now an operation that is gradually assuming a more and more important place in uterine surgery, Dr. Skene has furnished some notes illustrating his experience in managing some cases during the past year.

He finds that preparatory treatment is usually necessary before the final operation is attempted.

For example, when there is a bilateral laceration reaching to or nearly to the vaginal junction, the erosion of the parts is so great that large portions of the surfaces have to be removed before the edges can be properly brought together, otherwise the tension on the sutures will cause them to cut through the tissues. In such cases he merely approximates the lacerated parts about ten days before the operation, confining them to their proper place with two bits of sheet-lead on either side of the cervix. The vagina is then carefully tamponed with marine lint, so that the surrounding parts are not chafed by the lead. This lint may be retained several days in situ without becoming offensive. At the end of a week the clamp is to be removed, and then the tissues will be found softened and improved. The marine lint tampon alone will accomplish much of the same effect.

In two cases treated in this way the erosion disappeared, and the cysts which had existed decreased in number, though of course the improvement was only temporary. Dissatisfied with the silver wire suture, he determined to use silk. In a recent case, where eight silver sutures had been used, there was no union when the wires were removed at the end of a week. As the parts were granulating, Dr. Clarke brought them together with six of Hoff's automatic needles, the vagina being tamponed and the patient remaining in bed. Still no union was obtained; a month later silk was used, and at the end of a week perfect closure was the result. These sutures are easily tied by using Carroll's knot-tier, or by passing the loop of a Thomas curette over one thread, and making traction laterally with that, holding the other thread firmly in the fingers. In the after-treatment the less interference the better. He always introduces the marine lint tampon, leaving it in position for forty-eight hours. After its withdrawal, unless there is vaginitis or marked leucorrhœal discharge, he never employs a vaginal injection, but care is exercised to keep the external parts clean. The bowels are not confined, nor is the diet restricted in any special way. An anæsthetic is usually unnecessary. If pockets or pinholes remain after removing the sutures he leaves them alone for some weeks, until the process of involution has been fully completed, when they will be found to have greatly diminished in size. If large enough to require treatment, a drop of nitric acid may be gently inserted into the pocket.—*Proc. of the Med. Soc. of the County of Kings*, June, 1878.



# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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### HOMŒOPATHY AND EXCLUSIVENESS.

THE recent action of the Medical Society of the County of New York regarding the relations of exclusivism and so-called liberal homœopathy is apparently still open for further explanation. It would appear that a part of the burden of this latter must fall upon us in the way not only of keeping the real points at issue properly before our readers, but of maintaining our original position against the chances of being misunderstood. Our aim has simply been, from the beginning, to give the subject a fair discussion, to express an unbiased opinion upon the facts of the case, and with no desire to uphold the action of the Comitia further than appears to be right and proper. That this explanation seems necessary is quite evident from the tenor of the remarks of our esteemed correspondents in the present issue.

Although the communications are from two different sources, there is such a similarity in the language and the ideas expressed upon one or two points in the editorials referred to, that we take advantage of the coincidence by answering in a general way.

As we have said on a previous occasion, the Comitia took the only course left them in answering the question of exclusivism as applied to so-called liberal homœopathy. We can scarcely imagine a more satisfactory way than the definition of the term, in the first place, and the direct application of the definition, afterwards. Such a course prevents that misapplication of terms which makes the consultation with the dictionary so necessary in conducting discussions. We fail to see how the answer could be misunderstood, and consequently how it could be evasive. There does not appear to be a claim that the Society failed to appreciate its significance, or that there were any doubts as to the true meaning of the propositions. So far, then, as such a result was concerned, the answer was in point of directness equivalent to yea or nay.

This statement has been so explicitly made by us, on two former occasions, that we notice with surprise that both correspondents, with a striking similarity of construction and ideas, coincidently of course, strive to prove the falsity of our position by quoting our own words as applied to an exactly opposite idea. We merely wish to say, in passing, that we do not object to the quotation, which is correct as far as it goes, but we take exception to its application. The original, instead of showing by anything we said that the committee evinced a "disposition to dodge a plain duty," etc., really reads thus: "Unless the committee showed a partisan spirit, evinced a disposition to dodge a plain duty, or was tempted to yield to the impulses of mere prejudice, it could not have given a different answer." This is a comparatively trivial matter, it is true, but we cannot take to ourselves the credit of giving more than our share of the argument.

Whether the Society believed the application of the definition to the so-called liberal homœopaths was correct or not, deserves some consideration as an offset to the assumption that the vote was founded on mere prejudice. As the discussion proceeds, we are becoming more and more convinced that the principal difficulty rests in a distrust of the good faith of the liberal homœopaths in the stand they have taken. This, after all, appears now to be the best manner of reconciling the various explanations of the verdict of the Society. In fact, one of our correspondents, whose clear-headedness the profession has had ample opportunity of testing, appears to lose sight of the main conditions of admission to our ranks, viz., a good medical education, a good moral character, and a renunciation of exclusivism. These are the starting-points, the foundations upon which the merits of liberalism in homœopathy must rest. Without assuming the existence of these conditions, the whole interest of the discussion falls to the ground.

Again, the guarantee of the fulfilment of such conditions does not depend upon the "ipse dixit" of any individual who may wish to consult with a "liberal homœopath," but upon a verdict of his county society. In other words, the "liberal" must be a member of the Medical Society of the County of New York, or of a similar regular medical organization, before his professional standing is fixed, and before consultations with him are proper. Under such circumstances it would make no difference as to any opinions regarding the size of a particular dose or the theory of the action of particular drugs. These are individual matters, with which no one has a right to meddle, and on which no society has a right to pass a verdict.

But we are now looking through the "loop-hole," to which allusion has so often been made, and have consequently advanced beyond the real boundaries of the present question. It is, however, natural to do so, for

the sake of showing that the Society would have been safe in voting upon the question of exclusivism by itself, independent of any side issues, and that the latter would take care of themselves at the proper time. We have expressed the opinion that, so far as a direct answer to the propositions was concerned, the Society stultified itself by its vote. If the decision had been to the contrary, a step would have been taken in the right direction of offering an opportunity for applications for membership on the part of liberal home paths. Under such circumstances, each case would have been examined on its own merits, and no one could have been admitted who did not fulfil all the necessary conditions, and who did not guarantee to drop the sectarian title, and cease to use it as a trade-mark of deception for the people.

This course would very definitely settle any doubts as to the sincerity of the candidates and their proper position before the public. As it is, however, the Medical Society of the County practically denies the right of any such applications, and virtually places itself upon record as opposed to the exercise of merely individual opinions. The whole matter rests now just where it did before the querist propounded his question, and before the Comitia attempted to make it intelligible to the Society. That such is the case, however, is no reason why it should be assumed that the Code does not need to be altered to suit the emergencies of the situation. The very fact that the Society saw a "loop-hole" through which any querist might dodge, and voted accordingly, quite conclusively proves that something more than the Code, as it now is, was needed.

The remarks of one of the correspondents regarding the necessity of each party sailing under its own colors hardly admits of any direct application to the points at issue in this discussion, as from the start it has been advocated that there shall be but one banner, and that no distinction of mere creed or sect should be recognized. Whenever we lose sight of the grand principle that underlies this question, all the talk concerning liberty of thought and of opinion becomes the merest cant, and apparent sincerity degenerates into transparent hypocrisy.

#### THE YELLOW FEVER COMMISSION.

THE suggestion for the appointment of a Yellow Fever Commission, first made by the citizens of Memphis, and so strenuously urged by others in infected localities, is beginning to take a practical shape. As previously announced, the Medical Society of this county is shortly to hold a meeting for the purpose of advising Congress to make the necessary appropriation for such a commission. As there can be but one view of the necessity of the measure, it is easy to foretell the result of the vote and the earnestness with which the necessary appeal will be made. There is

also no doubt that there is much to learn concerning the supposed cause, spread, varying type, and general management of the disease. The present epidemic through which we are passing, and the end of which we are approaching, has been an exceedingly fruitful one for experience and study. The observations have spread over a comparatively wide field, and under apparently opposite conditions as to sanitary regulations. The disease has assumed a malignancy which equals that of any former epidemic. The attention of the medical profession in the stricken cities has been directed to the study of the disease in its different bearings in a more thorough manner than ever before, while the different theories of the propagation of the disease have received their severest tests. All these facts should be collected in some available form, and should be suitably studied by a competent commission, in order that the terrible lessons of the pestilence may not be lost, and the dreadful experiences of the past few weeks be repeated next year. The general Government is enough interested in any measure calculated to prevent a recurrence of the pestilence to make a large appropriation for the engagement of first-class medical talent. Congress could not cast its vote in favor of a more popular scheme. The materials are at hand, the localities of the fever are within easy reach, and the proper workers are ready to enter the field. It requires, however, more than the action of a single county society to give expression to the views of the profession on this point. The medical societies in the other localities should take up the matter, and make their influence felt in the right direction.

#### THE AMERICAN ACADEMY OF MEDICINE.

THE American Academy of Medicine has had its third meeting. It is evident, from the fact of the election of forty-five fellows—with a rejection of six or seven more, because they had not the educational qualification, men too of reputation—that there is vitality in the Society. There is a demand from all sides for a higher average standing among physicians: and the Academy rightly, we think, has taken the proper view, when it declares that the proper place to begin, in order to attain the higher standing, is at the beginning. A man must be trained to study in the abstract, and must have some knowledge of the laws of science and of language before he begins to study medicine. Another item for congratulation is, that, while from the very necessities of the case, the articles of association must have been tentative, the proposal for changes were all in the one direction, *i. e.*, insisting upon a complete collegiate course as the only evidence to be received in order to determine a candidate's fitness for election. So that the idea is being crystallized, and there is consequently a greater opportunity for it to be symmetrical. With the provision of a new by-law, securing a careful exami-



nation of all papers, the prospects are that the next meeting in this city will be an interesting one, and will exert a powerful influence in favor of a cultured profession.

## Reports of Societies.

### AMERICAN ACADEMY OF MEDICINE.

*Third Annual Meeting, Sept. 17th and 18th.*

ELEVATING THE STANDARD OF MEDICAL EDUCATION—  
THE NECESSITY OF PRELIMINARY TRAINING—THE  
ENDOWMENT OF MEDICAL COLLEGES.

The third annual meeting of this Society was held at Easton, Penn., on Tuesday and Wednesday, Sept. 17th and 18th. The sessions were held in Pardee Hall, one of the buildings of Lafayette College. The first session, on the afternoon of Tuesday, was opened by an address of welcome by Dr. McIntire. The election of fellows followed, forty-five candidates being admitted, among whom were Drs. E. J. Birmingham, V. P. Gibney, C. H. Fox, G. M. Beard, D. B. St. John Roosa, G. F. Shady, and others, of New York; H. C. Wood, James Tyson, H. Lennox Hodge, and W. H. Allen, of Philadelphia.

The Committees on Seal and Certificate of Membership presented reports, which were acted upon. In the evening the President, Dr. F. H. Hamilton, of New York City, delivered his address. In it he treated upon the imperfect preparation of students of medicine, which, as a consequence, gives imperfect results; examining the nature and extent of the evil, its cause and consequence, and whether the organization will effect its cure. He found that in all civilized countries other than the English-speaking nations, a preliminary examination was required, which equalled or excelled the standard of our Bachelor of Arts degree; that the course was graded, the pupil advances by examination; that four years was the minimum time of study, the professors were salaried, and the final examination conducted by independent boards. This state of affairs differed in the English-speaking nations, the condition in the United States being worse than elsewhere, because our general government could not, and the State governments had not limited the number of licensing boards; indeed, in some of the States, no license to practise is required. As a consequence, this new industry of manufacturing doctors sprang up, supplying a quality of the article according to the demand, and eventually overstocking the market. How was this to be remedied? It was admitted that as much time and study should be devoted to the study of medicine in the United States as in Germany. If any college should insist upon this most of their students would go elsewhere, and as, with four or five exceptions, the medical colleges are in effect private enterprises, the experiment would be a failure. A full endowment, rendering the faculty independent of the number of students, is the only thing which, in his country, can bring about the reform. In the meantime we must comfort ourselves with the thought that a great many of our students do thoroughly qualify themselves, and voluntarily take a course of instruction equal to that of any country. We must also try to mould public sentiment, and especially advise those about to enter upon the study of medicine.

On Wednesday morning, besides receiving some

proposed amendments to the constitution, the following by-law was adopted:

"Papers intended to be presented to the Academy must be submitted to the Secretary of the Council thirty days before the meeting, and may be read after they have been approved by the Council."

The election for officers resulted as follows:

*President*—Dr. Lewis H. Steiner, of Maryland; *Vice-Presidents*—Drs. R. L. Sibbet, of Pennsylvania; E. M. H. Sell, of New York; G. H. Larison, of New Jersey, and R. S. Sutton, of Pennsylvania; *Secretary*—Dr. R. J. Dunglison, of Pennsylvania; *Assistant Secretary*—Dr. C. McIntire, of Pennsylvania, and *Treasurer*—Dr. N. A. Baldwin, of New York.

Additional members of the Council: the ex-Presidents, Dr. P. D. Keyser, of Pennsylvania, and G. F. Shady, of New York.

The next meeting will be held in New York.

### NEW YORK ACADEMY OF MEDICINE.

#### OBSTETRIC SECTION.

*Stated Meeting, Sept. 16, 1878.*

DR. SALVATORE CARO, CHAIRMAN.

#### SORE NIPPLES.

DR. F. V. WHITE read a paper upon the above subject. Preparatory to a proper understanding of the pathology and the therapeutics of this morbid condition, he referred to the anatomy of the part as given by Astley Cooper and some more modern authors. According to the authorities consulted, the doctor stated that there was no erectile tissue in the nipple, such as was found in the penis. The most common varieties of sore nipples were abrasion, fissures, and ulcerations, and their occurrence was most frequent in primiparous women.

#### PROPHYLACTIC TREATMENT.

With reference to prophylactic treatment, such as bathing the nipples prior to confinement, with alcohol, astringent lotions, etc., Dr. White had great doubt concerning its actual value.

He regarded sore nipples as the most frequent cause of the superficial and the deeper-seated mammary abscesses which occurred during lactation.

The doctor did not discuss the therapeutics of this subject further than to reaffirm his confidence in the use of the nipple-glass, which protected the nipple from irritation, from variations in temperature, and from engorgement by milk. It should be applied as soon as the nipple commenced to be tender.

DR. HUBBARD regarded it as a point well taken, that mammary abscess very seldom occurred unless preceded by sore nipple. He had been inclined to the belief that constantly bathing the nipple with milk, as was the case when the nipple-glass was worn, was injurious rather than beneficial. In that respect, however, he might be in error, and was willing to give the glass a trial.

#### DOES THE NIPPLE POSSESS ERECTILE TISSUE?

DR. A. C. POST remarked that, while there might be some histological difference between the nipple and the penis with reference to the erectile tissue, at the same time there was present in the nipple a tissue which rendered it capable of becoming erect. He regarded it as an error to say that the nipple did not contain erectile tissue, and, in that particular, he

thought the language of the paper should be corrected.

Dr. WHITE remarked that Cooper did not regard it as erectile tissue proper, and that the same view was held by Flint, as stated in his work on physiology.

Dr. Cyno believed that Dr. Post was correct when he stated there was erectile tissue in the nipple; for it was a positive fact that such tissue was present. Whether it was equal to what was found in the penis and the clitoris, he was unable to say; but that the nipple became erect when titillated, and remained so for a certain length of time, had been repeatedly observed. Besides, he believed there was an intimate relation existing between the erectile tissue of the nipple and the erectile tissue of the genital organs of the female; for, when the nipple was sucked, it very commonly happened that a certain kind of voluptuous feeling came over the woman.

Again, it had been long known that friction of the nipples, such as sometimes attended measures prophylactic of sore nipples, might be followed by abortion. Velpeau, Bedford, and some other authors had suggested tickling the nipple for some time as one of the means of producing premature labor.

For that reason, active interference with the breasts and nipples prior to labor had been objected to in the prophylactic treatment for sore nipples.

With reference to remedies for preventing excoriation and fissure of the nipple, he had never found any more serviceable than the saliva of the mother applied two or three times a day.

As for treatment, the application of clear cold water had served him most satisfactorily for hardening the nipple and preventing extension of excoriations after they had been developed. The water was best applied by means of small cloth-compressors. In obstinate cases he had found nothing better than gold-beaters' skin applied to the nipple, and covered, perhaps, with a slight layer of collodion, which would not be removed by a single nursing.

After the exhibition of several varieties of breast-pumps, nipple-shields, and nursing-bottles, by Dr. White, the Section adjourned to meet on the *fourth* Thursday of October.

#### SECTION ON PRACTICE OF MEDICINE.

*Stated Meeting, Sept. 17, 1878.*

DR. EDWIN F. WARD, CHAIRMAN.

##### PERITONITIS CAUSED BY INJECTIONS OF TEPID WATER—ONE PINT OF WATER THROWN INTO THE RECTUM OF A CHILD SIX WEEKS OLD.

Dr. S. S. PURPLE narrated a case as follows: A child, six weeks old, had slight constipation. To relieve this condition, the nurse gave an injection of castile-soap water. A Davidson's syringe was used, and two bulbsful thrown into the bowel. The child at once began to cry and struggle, and evidently was in great pain. The father, who was somewhat accustomed to the administration of injections, came in and said that sufficient water had not been used. Accordingly he threw into the bowel a considerable quantity of water. Within a few minutes the child began to struggle and scream terrifically, and, soon after, nearly one pint of water passed from the bowels, with only a very small quantity of fecal matter. The child continued to worry, seemed to be in pain, and a small dose of paregoric was administered, and sixteen hours after the injection a physician was called, when the temperature of the child was found to be  $105\frac{1}{2}$  F.

and the abdomen was distended and tender. Peritonitis was diagnosed, and one drop of U. S. solution of morphia ordered every half-hour until the pain was relieved. The morphia was afterwards given in doses of the same size every hour. The child was kept under its influence a little more than a week, the bowels in the meantime not moving at all. The temperature fell, and the child was apparently on the way to complete recovery.

One point of interest in the case was that a pint of water could be thrown into the rectum of a child *six weeks* old.

##### ACQUIRED SYPHILIS OCCURRING IN A YOUNG CHILD—QUESTION WITH REFERENCE TO TRANSMISSION OF THE DISEASE THROUGH THE MOTHER'S MILK.

Dr. L. D. BULKLEY referred to a case of syphilis which contained certain points of interest. The patient was a girl, 9 years of age, who came under his observation at Demilt Dispensary. She was in rather poor health, and her mother came with her to consult the doctor with reference to an abscess situated at the upper and inner aspect of the right tibia. The swelling was about two inches in diameter. Upon closer examination it was found to be a softened node. A very large, tender node was also found upon the left tibia. The teeth, however, were perfect. There was no evidence of keratitis, either past or present, nor did the forehead present any of the characteristics of hereditary syphilis. The duration of the swelling upon the legs had been about two years. On further inquiry, it was found that the child had a slight, general eruption over the upper part of the body when *eleven* months old, and a marked eruption upon the lower extremities when three years of age. The father of the child died when it was six months old. There was no evidence that he had had syphilis. The mother gave no evidence of syphilis existing during the lifetime of her husband. Soon after the death of her husband she took a strange child to nurse, and gave it her left breast. Her own child suckled her right breast. The strange child had what was thought to be a simple stomatitis, and, after nursing two days and nights, was removed entirely. Her own child was then given both breasts. About three weeks from the time she first saw the strange child, the left nipple became *sore*, and there soon followed a papular eruption upon the body, to which were added more or less of the developments of syphilis. The question then arose, how did her own baby get syphilis? The mother recollected distinctly that at no time did her child have a sore about the mouth, or any portion of the mucous membranes. The conclusion then might be reached that the child acquired syphilis through its mother's milk, but Dr. Bulkley was not willing to accept such conclusion without closer investigation with reference to the existence of a primarily local lesion.

Dr. PURPLE asked if it was settled that syphilis could not be communicated except through a primary lesion or chancre.

Dr. BULKLEY replied it had been well established by Fournier that acquired syphilis *always* originated in a chancre.

Dr. PURPLE inclined to the opinion that such view was more theoretical than practical, and referred to cases, one in particular, in which a gentleman who had secondary syphilis gave the disease to his wife, and upon the most careful examination no primary lesion was found either in the mouth or in the vagina.

Dr. WARD suggested that a primary lesion might have been present in the mouth in Dr. Bulkley's case.



but that it was less marked than usual on account of the age of the child; hence, might easily have escaped observation.

DR. BULKLEY remarked that he had never seen a chancre in the mouth of a child so young, yet he was inclined to believe that a local lesion was developed and passed unrecognized, rather than that the syphilis was acquired through the milk of the mother.

DR. WARD referred to a case in which the child was delivered perfectly free from any appearance of syphilis; the mother also was free from the disease. About two months after the birth of the child, the father contracted a chancre, and communicated the disease to his wife. The mother nursed the child for two weeks thereafter, and also passed through the periods of syphilis, but the child at the end of four months had not shown any evidence that it had taken the disease.

DR. KATZENBACH referred to a case as follows: A syphilitic mother gave birth to a child which died of syphilis at the age of eight months. She subsequently had three miscarriages. She had mucous patches in her mouth, suffered from headache and well-marked alopecia, at the time she came under the doctor's observation, and was also in the third month of another pregnancy. A mercurial plan of treatment was at once instituted, consisting of the use of one grain of blue-mass combined with iron three times a day, and continued up to the time of delivery. The child was born at full term. The mother had mucous patches in her mouth, nursed her child, and yet at the end of six months there was no evidence whatever that the baby had acquired syphilis.

Dr. Katzenbach also referred to a case in which active delirium, with only a moderate elevation of temperature, was developed in consequence of excessive brain-work, associated with unsuitable physical nourishment. The patient was a college student, who lived poorly while passing through the cramming process preparatory to examination. The temperature was reduced by continuous cold sponging. Sleep was induced by full doses of opium.

The Section then adjourned.

## Correspondence.

### HOMŒOPATHY AND EXCLUSIVENESS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—"Senex" is right in remarking that my letter is somewhat peculiar, for it has served its object by drawing his fire. That it "suggests to the attentive reader the idea that its writer is but partially acquainted with the facts" remains to be proven—and, "or else is not writing in good faith," is a groundless assumption and unworthy of refutation.

Next my critic says: "His first error is the statement that 'the morbidly conscientious querist might with equal plausibility, under its soothing influence, consult with eclectics.' A reference to the Report of the Comitia (MED. REC.) will show that the eclectics are exclusives, inasmuch as they exclude by public declaration certain drugs and methods of treatment." He is undoubtedly correct in the abstract, but not in act; for the Report, incomplete and evasive by not being strictly responsive, would enable "the morbidly conscientious querist" to declare the Code "null and void," as regards any eclectic who on his *ipse dixit* pronounced himself no longer an exclusive. Such

at all events, would be the effects of your construction of the Report and of its action on the Code as regards liberal homœopaths. (MED. REC., Aug. 10, Sept. 7.) Therefore, if applicable to one set of exclusives, it is equally applicable to another set of exclusives, at least with recanting ones of any sect: thus enabling "Senex," "the morbidly conscientious querist" and "qualms of conscience" to practise "*in dubiis libertas*" ad libitum.

Then that "Senex" is either unfamiliar with, or else ignores the definition of empiricism, as contained in Webster, is self-evident. The latter says empiricism is, "*A practice of medicine founded on experience, and neglecting the aid of science; ignorant and unscientific practice; charlatanism; quackery.*" The practice of the present day is founded upon a knowledge of disease and of the physiological action of remedial agents, and, subserviently, clinical experience. At all events, such is the practice of all progressists—*Non progredi est regredi*. "Senex" claims that the practice of the majority of the profession, including "Senex" himself, is "a practice founded upon experience only, without the aid of a general theory," and says it "is certainly empirical." The error of this plausible assertion is due to the ambiguity of the term; neither "Senex" himself nor any "physician in good standing" would consider it complimentary to be styled an "empiric." Consequently his statement, if Webster is not in error, that, "conversely, the practice of homœopaths is not empiricism, for they claim to possess a general guide capable of indicating the appropriate treatment in cases where experience is silent," is not worthy of a moment's serious consideration; for the guide, or rather doctrine, of *similia similibus curantur* has long since been considered and proved as a rule to be a fallacy.

For his second signification, he quotes the Code of Ethics (Sec. 3, Art. I., Chap. II.), which does not apply to the case, as it only refers to "the ordinary practices of empirics, and are highly reprehensible in a regular physician." But Webster defines an empiric as "*one who confines himself to applying the results of his own observation; wanting science; an ignorant, unlicensed practitioner; a quack; a charlatan.*" Therefore the homœopath *per se* is an empiric as regards his practice of the art of medicine, as he only treats the symptoms of disease on the principle of "a dog's hair cures a dog's bite." My learned critic should not confound quackery and charlatanism with empiricism; the former is vulgar, the latter refined, moral, and can be practised "in good standing."

I trust that "Senex" will now be able to clearly understand my writings without my having had recourse to a "private definition" or one as novel and clever as his.

As regards "exclusivism," "Senex" agrees with me as to the forfeiture of professional standing, etc. For its definition, pardon me, if, without a quotation, I again refer him to Webster—and, for its applicability to the present issues, I accept the definition of exclusives embodied in the Report of the Comitia. Had my learned critic read me attentively and critically, he would have found that I did not object to the Report of the Comitia as regards the so-called liberal homœopaths, except wherein it had not gone far enough, for I would have requested them to present their credentials "for further action" (consideration), and, if found satisfactory, have recognized and admitted them as regulars. Moreover, as previously stated, the Report was not responsive, but evasive, and entirely foreign to the point raised by "the Morbidly Conscientious Querist," and the Comitia, by practically ig-

noring his question, in your own words "evinced a disposition to dodge a plain duty;" and I did object to the construction put upon it in the editorial of the RECORD of August 10th, and of its assumed effect in the Code, also insidiously sustained by "Senex"—i. e., that the Code became "null and void as regards consultations with the so-called liberal homœopaths," who either never had a status as regulars, or else had forfeited all right and title thereto by practising empiricism.

Then, turning from those points, "Senex" comes "to another which 'Medical Ethics' apparently deems of special importance, as he has placed it in italics." In discussing this proposed amendment, "or one of a similar nature," as suggested by me, he says substantially that I "open the doors to consultations with eclectics and to all homœopaths." This assertion is based on the construction it pleases him to place on the first sentence of my proposed amendment. I admit of its ambiguity—indefiniteness, if it is more gratifying to him; but its intent was, as indicated in the paragraph immediately preceding the proposed amendment, "a county medical society" under the control of the Medical Society of the State of New York, and his quibble or technicality, although well taken, falls to the ground by substituting "The Medical Society of any County."

Again coming to the charge, he says: "We find that the amendment, if adopted, would exclude from professional recognition at least one-third of the physicians of this county whose names are in the Medical Register, including even the President of the Academy of Medicine. Can it be that 'Medical Ethics' honestly proposes such a measure? Or has he been a little careless in the statement of his views?" My learned Querist is evidently as unacquainted with "the fundamental laws" of the State regarding physicians as he is unfamiliar with Webster's definition of empiricism, else he would not have propounded such a question. I will quote the essential ones for his benefit, as well as others who may hold similar views: Revised Statutes, Sixth Ed., Part I., Chap. XIV., Title VII., Sec. 1: "The president of every county medical society shall give notice in writing to every physician and surgeon not already admitted into such society, within the county in which the society of which he is president is situated, requiring such physician or surgeon, within sixty days after the service of such notice, to apply for and receive a certificate of admission as a member of such society."

"Section 2. The service of every such notice shall be made personally on the physician or surgeon to whom it shall be directed: and if such physician or surgeon shall not, within the time specified in the notice, or such further time as may be allowed by the president under the regulations of such society, apply for a certificate of membership in such society, his license shall be forfeited, and he shall be subject thereafter to all the provisions and penalties of the law of the State in relation to unlicensed physicians, until, upon a special application, he shall be admitted a member of the medical society of the county in which he shall reside."

The above is a part of the law of the land, and "the President of the Academy of Medicine and the one-third of the physicians of this county whose names are in the Medical Register" are no more entitled to exemption from its provisions than the greatest outlaw, unless their diplomas or licenses antedate the above enactment, which would then be as regards them an *ex-post facto* law. It is true this law has been and is—possibly through motives of policy—a mistaken one,

I believe, practically a dead one. As the "empiric homœopaths and eclectics" have each incorporated societies of their own, the motives of policy no longer exist. Therefore, as long as this law stands un repealed, the presidents of the various county medical societies, by not meeting its requirements, fail in their duty.

Then Chapter XVIII., T. 13, Art. I., Sec. 36., provides for the establishment, rules, etc.; and Section 37 empowers any medical society of the county entitled to representation in any medical society of the State and in the homœopathic medical society to discipline its members: provided such action receives the sanction of the State medical society representing such county medical society, and is not inconsistent with the laws of the State.

The State Medical Society proper has adopted the Code and certain by-laws for the discipline of its members, as well as those of the subservient county medical societies. I feel convinced that by enforcing them, as well as the laws extant, we will elevate the professional standard, and at the same time more readily practise as well as preach the trite quotation: "*In certis veritas, in dubiis libertas, et in omnibus caritas.*" For "*In dubiis libertas*," as applied by "Senex," would throw open the doors to false pretences.

In conclusion, your charge of "ventilating prejudices" in the editorial of September 7th, and the insinuation by "Senex" of "sectarianism and of attempting to restrict liberty of thought and freedom of practice by educated men," are "curses" in no way applicable to me. In all my communications I have had but one object in view—a wise and judicious liberality, founded on law, and a thoughtful consideration for the welfare of our profession.

Yours truly,

MEDICAL ETHICS.

## HOMŒOPATHY AND EXCLUSIVENESS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The editorial of THE MEDICAL RECORD (vol. xiv., p. 111) on the above-mentioned subject, and the subsequent criticism by "Medical Ethics" and consequent editorial (vol. xiv., pp. 191, 192), discuss questions of great interest to the profession.

The gist of the case thus presents itself in your first editorial: "It appears that one of the members of the society requested the *Comitia* to inform him officially whether the recent action of the Homœopathic Medical Society of the State of New York released its members from the ban of exclusiveness as regards consultations, which has heretofore been placed upon them by the profession."

The *Comitia* utterly failed to give a direct reply thereto. It very guardedly stated that "the only exclusives known to the *Comitia Minora* are a minority of the Homœopathic Medical Society of the County and the Eclectic Medical Society of the County, &c." The committee, in fact—making use of your own expression—"evinced a disposition to dodge a plain duty" by begging the question. The majority of the society saw the loop-hole liable to be seized by the "Querist," and very properly rejected the Report which, to say the least, was not responsive, but evasive. That there was such an opening left is shown by your first claiming and then reaffirming, in your editorials, that the third—a concluding and merely explanatory sentence—would vitiate an entire section of the Code. On the *ipse dixit* of an impurged exclusivist who, if formerly a "regular," "does," according to your own admission, "unquestionably forfeit his



professional standing by practising empiricism and exclusiveness," and it is thus utterly impossible for him to have, as claimed by you, "a good moral and professional standing," at all events within the meaning of the Code. Such a one is, therefore, even less worthy of recognition than the "licentiate" of a homeopathic school—*de bene esse*.

Your remarks as to prejudice having been evinced in the matter by the majority of the society and "Medical Ethics" are unfair. For every enlightened practitioner—if not in name, in fact—makes use of triturations more or less infinitesimal, and knows that there is, or may be, a difference of opinion as to the *modus operandi* of remedial agents; thus, the exclusivists give veratrum album in diarrhoeal diseases on the principle of *similia similibus curantur*, while the scientist, if he chooses to employ it, gives the agent with a view of arresting an active hyperæmia by inducing a passive one—in other words, by causing a vaso-motor paralysis of the intestinal tract. Such a difference of opinion is passed over with a shrug of the shoulder, for some "regulars" practise empirically (clinically), and others scientifically. The "majority" and "Medical Ethics" contend that every practitioner shall sail under the colors he or she may select, but not use one which may be chameleonized to suit the individual notions and prejudices of the public at large.

It is a well-known fact that certain specialists have for some years past urged the removal of the ban from exclusivists, and the recent action of the Homeopathic Society has rekindled their ardor, by stirring up, as rather ironically stated by "Medical Ethics," their "*qualms of conscience*."

Every lover of his profession believes in liberalism; moreover the tendency of the age, in sciences, religion, and politics, favors it; but it requires normal restraint; and even communism, with its boundless liberalism, has found it necessary to hold its votaries within bounds. Therefore, if the latter had to succumb to the inevitable law of restraint, a profession—the learned professions—must, *a fortiori*, recognize its force. Hence the section of the Code referred to—in its entirety, un mutilated—meets the requirements of the case.

Yours truly,

ONE OF THE MAJORITY.

SEPTEMBER 13, 1878.

## ETHER AND CHLOROFORM IN PUERPERAL CONVULSIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Supplementary to what I said in your issue of Sept 14th, on the anæsthetic treatment of puerperal convulsions, I wish to put on record the following testimonials:

Dr. John Crowell, Haverhill, Mass., in a letter to me, dated September 13, 1878:

"Judging from my own experience, many more patients are saved by anæsthesia than by the old methods adopted in my early practice."

Dr. G. W. Garland, Lawrence, Mass., writes that he considers "the anæsthetic treatment as invaluable, and cannot be dispensed with." He has, however, never treated a case without other remedies.

From Dr. Enoch Cross, the oldest physician in Newburyport, now nearing his eighth decade:

"I have had experience in all kinds of treatment of that dire disease. In my earlier years I used to witness disastrous results, but since I have trusted to ether, have had uniform success."

Dr. P. A. Howe, Newburyport: "Full and continuous anæsthesia alone can be relied on in urgent cases." Dr. Howe, who has had many cases, trusts mainly to ether, or if he could not obtain ether, would use chloroform. He also uses, as adjuncts, chloral hydrate and the bromides.

Dr. J. A. Douglass, of Amesbury, claims good results from veratrum in large doses.

From Dr. Gilman Kimball, of Lowell, letter bearing date Sept. 13th:

"I have seen but one case treated with ether, and that seemed to show its good effects."

Dr. H. J. Cushing, of Merrimac, reports five cases. Two of them were fatal. In one no ether was used, and in the other it does not seem to have been administered perseveringly. In the three cases that recovered ether was freely used.

Dr. S. H. Potter, Hamilton, Ohio. Dr. P. is an eclectic of repute in the West. (From a letter dated the 14th inst.):

"I employ chloroform and ether, of each equal parts, by inhalation, in the treatment of puerperal convulsions, and venescction, too, if the patient be plethoric. Chloroform is as safe as ether, and more prompt. I use these remedies in all cases in the above-mentioned proportions."

Dr. W. H. Kimball, of Andover, Mass. Dr. K. is President of our Essex North Medical Society. (Letter dated the 17th inst.):

"Have chiefly relied on inhalation of ether in treatment of puerperal convulsions for many years. I have more faith in this course than in any other."

From Dr. F. D. Gilbert, Sherbrooke, Province of Quebec. (Letter of recent date):

"You misunderstood my remarks, as I could not have stated that I lost a considerable proportion of my cases prior to using anæsthetics, as I never lost a case in my life where I was the first attendant. The substance of my remarks consisted in the statement of my belief that the cause of the disease was a reflex excitability of the spinal cord (the brain not being primarily affected), which abnormal excitement I had always been able to control by means of chloroform. This new remedy, I believe, I was the first, at all events in this country, to use in these cases, in face of very serious opposition."

This last communication demands a word of explanation. I gave, as well as my memory would serve me, a faithful report, after the lapse of ten years, of Dr. Gilbert's remarks at the meeting aforesaid. I had often pondered on them, and in my subsequent cases of puerperal eclampsia, had acted in accordance with his suggestions. And yet—alas! for the treacherousness of human memory! Alas! for the fallibility of human testimony! Here is a case that would delight our friend, Dr. Beard, who has taught us lately, by numerous illustrations of a like nature, of how little scientific value are such histories (say, as Gibbon's "Decline and Fall of the Roman Empire." (See Dr. Beard's articles in vol. xii. of the *Popular Science Monthly*.)\* If I, with a fair average memory, could not report correctly a short address which I heard ten years ago, on whom but a stenographer could we rely to reproduce any man's words, however impressive at the time, after a score or two of years had rolled around?

Several gentlemen who have written to me, have spoken about "apoplectic," "congestive," "hysterical" forms of puerperal convulsions; indications being furnished for treatment in accordance with these forms. Now, I believe this is puzzling one's self to little ac-

\* "On the Scientific Value of Human Testimony."

crural. Hysteria may, of course, complicate the pregnant or parturient state, but this is not the disease we have been considering, which is, according to the best authorities, an albuminuric or toxicemic celiemia. In fact, till we have more positive data to the contrary, I think we are warranted in saying with Czerny: "Tousslelo celiemique sans albuminurie."

It is, moreover, indisputable that cerebral congestion, apoplexy, and coma, may be a natural consequence of the violence and persistence of the convulsions, just as such results sometimes follow an epileptic seizure. Being effects, it is insane to treat these conditions as though they were the cause of the convulsions. Abolish, by your anæsthetic, the spinal crithism which provokes the disorderly manifestations, and the *plithora basis cranii* will disappear.

The literature of the subject includes, among other references, the following: *Lond. Med. Gaz.*, 1848, p. 245; *Bull. de Therap.*, Jan., 1849, p. 27; *Am. Jour. Med. Sciences*, July, 1853, p. 283; *Bost. Med. and Surg. Jour.*, vol. 51, p. 53; vol. 53, p. 286; vol. 93, p. 191; *Fla. Med. Jour.*, vol. ii., p. 1123; *Brith. R. L.*, parts 62, p. 328; 64, p. 211; 65, p. 222; 70, p. 240.

L. P. HILD, M.D.

NEW BRUNSWICK, MASS.

## RARE CONGENITAL MALFORMATION OF HIPS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Recently a patient with a peculiar malformation came to the surgical department of the Long Island College Dispensary. The condition being such as I had never met, or read of, leads me to send you the following brief sketch:

H. McE.; age, five years six months; native of the United States; family history is excellent. Patient's health has always been good, except during dentition, when, for about two months, he suffered from a slight gastro intestinal irritation. Now is plump and well nourished. Muscles are well developed and firm. Never had any fall or injury, and never complained of any pain or tenderness in back or limbs. Commenced to walk at the age of fourteen or fifteen months, when it was observed he had a "rolling gait," with a forward arching of the spine, and a prominent abdomen. Previous to this the mother and friends never noticed anything abnormal.

When the child stands, there is an apparent anterior curvature of the spine at the junction of the last lumbar vertebra with the sacrum, the pelvis being tilted forward. This curvature disappears as he is lifted from the floor, or allowed to lie upon his face or back. No point of tenderness or irregularity can be detected along the spine. Measurement of the lower limbs discovers practically no difference, the left being one-eighth of an inch the longer. If a line be drawn from the tuberosity of the ischium to the anterior superior spine of the ilium, the great trochanter, of each femur, is about one and three-fourths inches above it. In other words, the heads of the bones are thrown upward and backward upon the dorsum, as in dislocation. Above and behind the great trochanter a slight groove seems to constitute the only neck of the femur, the head and trochanter being, as it were, fused together. The axes of the limbs are normal. On inverting the limb, and manipulating as for reduction of a dislocation upon the dorsum, the head of the bone can be brought nearly to the position it should occupy normally, but muscular

contraction immediately draws it into its former position.

Fixing the pelvis, and grasping the femur at its lower end, the head of the bone can be moved up and down, giving a slight bony roughness. Probably there is no acetabulum. The heads of the bones seem to be enclosed in muscular or fibrous sockets. Standing the child upon his feet, the weight of the body forces the heads upward and backward, allowing the pelvis to tilt, and thus giving the appearance of curvature. If the limb is allowed to hang, its weight draws the head down. Locomotion is not much impeded. Nothing points to any disease of the region. Shall we call the condition A Double Congenital Dislocation upon the Dorsum Ilii? If objected that a bone cannot be dislocated from a position it never occupied, we must content ourselves with A Case of Rare Malformation.

Respectfully,

FRANK E. WEST, M.D.

24 CLINTON STREET, BROOKLYN, Aug. 2, 1878.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 15 to September 21, 1878.*

GREENLEAF, C. R., Major and Surgeon. On return to winter quarters of troops now on the Marias River, assigned to duty as Post Surgeon at Fort Shaw, Mont. T. S. O. 108, Dept. of Dakota, Sept. 16, 1878.

HORTON, S. M., Major and Surgeon. Granted leave of absence for twenty days on Surgeon's certificate of disability. S. O. 168, Dept. of the East, Sept. 17, 1878.

HUBBARD, V. B., Capt. and Asst. Surgeon. Assigned to duty at Angel Island, California. S. O. 128, Div. of the Pacific and Dept. of California, Sept. 10, 1878.

FITZGERALD, J. A., Capt. and Asst. Surgeon. When relieved to comply with S. O. 176, C. S., in his case. S. O. 108, Dept. of the Columbia, Sept. 2, 1878.

HALL, WM. R., 1st Lieut. and Asst. Surgeon. Assigned to duty at Ft. Boise, Idaho, relieving Asst. Surgeon Fitzgerald. S. O. 108, C. S., Dept. of the Columbia.

CUNNINGHAM, T. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 106, Dept. of Dakota, Sept. 10, 1878.

**YELLOW FEVER.**—A violent epidemic of yellow fever has broken out along the coast of Senegal, especially in the towns of Gorée, Rufisque, and Dakar. The epidemic is the most severe that has raged there since 1897. One of its first victims was the young and promising physician, Dr. Bellom. The disease has not yet made its appearance in St. Louis, the chief town of the country, which has so far been protected by a vigorous quarantine.

DR. HERMANN LEBERT, of Vevay, died suddenly in Switzerland, on August 1st. He was born in Breslau, and at the time of his death was 66 years of age. From 1852 to 1859 he was Professor of Medicine in the University of Zurich, and from 1859 to 1875 held the same chair in the University of Breslau. In 1875 he resigned his professorship on the score of ill-health, and since then has practised medicine in Vevay. He was the author of several valuable works that have secured for his name an honorable place in the galaxy of medical celebrities.



## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 21, 1878.

| Week Ending     | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|-----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Sept. 14, 1878. | 0             | 18             | 34             | 1                          | 1        | 16          | 0          | 0             |
| Sept. 21, 1878. | 0             | 29*            | 25             | 3                          | 6        | 24          | 0          | 1             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., Sept. 21, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of Sanitary Reports received during the past week under the National Quarantine Act:

*Ticksburg.*—Epidemic abating. There were 121 deaths during the week ending yesterday evening; a decrease of 113 deaths from the week before. Eleven deaths occurred in the last twenty-four hours. Total deaths to date, 721.

*New Orleans.*—During the week ending yesterday noon there were 1,401 cases of yellow fever and 445 deaths, a decrease of 172 cases and 85 deaths as compared with previous week. In the last twenty-four hours reported there were 165 cases and 69 deaths. Total cases, 7,538; deaths, 2,368.

*Baton Rouge, La.*—The first case of yellow fever reported to the Board of Health occurred on the 14th of August. A previous case, not reported to the Board, but thought to have been yellow fever, occurred August 10th. First death August 18th. To 9 A.M. yesterday there had been 672 cases and 39 deaths.

*Morgan City, La.*—During the week ending yesterday evening there were 41 cases of yellow fever and 10 deaths, making in all 66 cases and 18 deaths.

*Mobile, Ala.*—Four cases of yellow fever and two deaths occurred during the past week, making in all six cases and four deaths.

*Grenada, Miss.*—For the week ending yesterday evening there were 20 new cases and 37 deaths. Total deaths to date, 271. No decrease in virulence of the fever. Dr. Henry Stone, of Natchez, is the only physician on duty.

*Pass Christian, Miss.*—From Sept. 9th to 20th, A.M., there were six new cases of yellow fever, and no deaths. Total cases, 21; death, 1.

*Beloxi, Miss.*—Twenty cases of yellow fever, and seven deaths have occurred to Sept. 20th.

*Ocean Springs, Miss.*—There were fourteen cases of yellow fever and three deaths for the week ending yesterday evening. Total cases, 51; deaths, 12.

*Memphis.*—620 deaths from yellow fever occurred during the week ending Thursday evening, Sept. 19th, making a total of 2,131 deaths. The number of cases not known to Memphis Board of Health.

*Brownsville, Tenn.*—During the week ending yesterday evening there were 100 new cases of yellow fever and 15 deaths, making in all 130 cases and 44 deaths. The deaths for the week ending Sept. 14th were 29, instead of 9, as stated in last report.

*Hickman, Ky.*—Forty-two deaths from yellow fever occurred during the week ending yesterday evening.

Sixteen new cases and three deaths during the last twenty-four hours. Total cases to date, 205; deaths, 74.

*St. Louis.*—During the past week there were six deaths from yellow fever, four of which were at quarantine. All refugees.

*Louisville.*—Eighteen cases of yellow fever and eight deaths for the week ending yesterday evening. Total cases, 77; total deaths, 26. All refugees.

*Cincinnati.*—Five cases of yellow fever and one death during the week ending yesterday evening. All refugees. Total cases, 30; deaths, 13.

*Gallipolis, Ohio.*—Since the last report, to Sept. 18th, there was one new case of yellow fever and three deaths, making in all 28 cases and 12 deaths, all traceable to the infected steamer John D. Porter.

*Indianapolis, Ind.*—One refugee died of yellow fever Sept. 17th.

*Bay St. Louis, Miss.*—Fifteen cases of yellow fever occurred during the last week. Deaths not reported.

*Cairo, Ill.*—Three new cases of yellow fever since last report. Two died in Cairo and one went to Mound City, eight miles from Cairo, and died there.

*Havana.*—Fifty deaths from yellow fever and four from small-pox during the week ending Sept. 14th.

*Key West, Fla.*—Six cases of yellow fever and five deaths during past week.

*Morocco, Africa.*—Asiatic cholera has appeared in the cities of Mequinez and Fez, Morocco, causing the death of from twenty to thirty victims daily in the former city, which is about 170 miles from Tangier. Information of the disease came to Felix A. Mathews, Consul of the United States at Tangier; and, in his capacity as President of the Board of Health of Morocco, he dispatched Dr. Tadeo Martinez, formerly of the Spanish Navy, to visit Fez and Mequinez. Dr. Martinez left Tangier August 7th with an escort of 200 Moorish troops, and, after forcing his way through the lines of revolutionists besieging Mequinez, entered that city on the 14th of August, where he found the disease to possess all the well-known characteristics of Asiatic cholera. From a report obtained from the custodian of the Jewish Cemetery, the number of deaths of the Israelites since the first appearance of the disease exceeded 400. The disease was reported to have spread to Sherarda, a province bordering on the city of Mequinez. Dr. Martinez attributes the disease to the unsanitary condition of the city, but Consul Mathews suggests the possibility of the germs of disease having been brought by the thousands of pilgrims returning from Mecca. The unsanitary condition of the crowded cities of Fez and Mequinez is described as "entire want of precautionary measures of cleanliness within and without the houses. In some quarters offal, filth, dead animals, and dirt of all kinds and origin are allowed to accumulate from year to year until they reach the level of the windows, creating inexpressibly repugnant exhalations of the most deadly and life-destroying miasm." The port of Tangier and its environs are free from any infectious disease.

*Calcutta.*—Nine deaths from cholera, week ending July 20th.

*Bombay.*—Thirty deaths from cholera, week ending July 30th.

JOHN M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

DR. CARL SACHS, Assistant in the Pathological Institute of Professor Du Bois-Reymond, in Berlin, lost his life recently on Monte Cevedale, in the Tyrol. In company with Dr. George Salomon, assistant to Frerich's Clinic, in Berlin, and a Herr Heinitz, a

\* Nine cases reported from institution at No. 155 Worth Street.

merchant of that city, he started out for a walk, probably without a guide, and but one of the party returned alive. Dr. Sach's body has not yet been found, but that of Herr Heinitz was found in a terribly mangled condition. Dr. Salomon fortunately escaped with a severe double fracture of the leg. In July, another Berlin physician, Dr. Tunkel, met with a severe accident on Mont Blanc, but was fortunate enough to escape with life.

**PATHOLOGY AND TREATMENT OF EPILEPSY.**—Dr. E. C. Seguin will deliver, during the months of October and November, a series of six lectures upon the "Pathology and Treatment of Epilepsy," at the College of Physicians and Surgeons, on Thursday afternoons, at four o'clock P.M., commencing on Thursday, October 3d.

**GALVANIC TREATMENT OF THE ULCERATED OS UTERI, AND VAGINAL LEUCORRHOEA.**—Dr. O. E. Herrick, Greenville, Mich., writes: "While reading Dr. Chas. K. Mills' clinical lecture on the Treatment of Bed-sores and Ulcers by Galvanism, reported for the *Medical and Surgical Reporter* and reprinted in the *Michigan Medical News*, it occurred to me that a similar plan might be pursued in the treatment of ulceration of the os uteri. Having a patient who had been suffering with a prolapsed and ulcerated uterus for a long time, and to whom I had applied one of the silver wire and soft rubber pessaries' (described by me in the *Record* of July 6th), I conceived the idea of profiting by the silver wire stem to get up a galvanic current; accordingly I proceeded to effect my purpose in the following manner: by making a little bag about two inches long by one inch wide, of chamois skin, and fastening it to the front of the belt used to sustain the pessary in position. I then cut a piece of zinc about one inch square, perforated it, and attached a small copper wire, the other end of which I attached to the protruding end of the silver wire pessary. I then put the piece of zinc with the wire attached into the chamois-skin bag, into which had already been placed a piece of sponge moistened with vinegar, thus having the zinc, copper wire, and silver galvanic apparatus of Dr. Mills applied to ulceration in another location.

"I had had the patient under treatment for about ten days previous to making the above application, had given the usual treatment of injections, unguents, etc., without any perceptible change in the ulceration or leucorrhœa. And the only way my patient had improved was that the instrument had kept the uterus in its proper position. In thirty-six hours after the galvanic attachment was made I examined the patient and found healthy granulations instead of the unhealthy ulcer, without any evidence of granulations as it had existed before; I also found that the leucorrhœa had stopped almost entirely, a circumstance which the patient stated had not taken place for a year before. In one week there was neither ulceration nor leucorrhœa, at which time I removed the copper wire and zinc, but left the uterine supporter on a week longer, to make sure the uterus would remain in place. I then removed it, and discharged my patient well, and she remains so up to this writing, three weeks since the removal of the apparatus. I have two more cases that I am treating in the same manner, one with ulceration and the other with an old and obstinate leucorrhœa. They are both doing as well as one could desire."

**HOW WE TREAT OUR BRAINS.**—Almost daily I am in contention with parents and guardians, school-masters and school-mistresses, clergymen and professors, youths and maidens, boys and girls, concerning the right way of building up the young brain, of

ripening the adult brain, and of preserving the brain in age. Delicately ill do we take in hand to deal with this delicate member, and well is it that innate development overruns our schemes and brings the variety of natural good out of the monotony of human folly. It is dimly felt by society that the reign of bone and muscle is over, and that the reign of brain and nerve is taking its place. Even the Gibeonites now have the hydraulic ram and the steam felling-machine; the spectacle of general of forces fights in his tent by click of battery and wire, and his lieutenant hoists an iron-clad by the touch of two buttons upon his waistcoat; the patient earth forgets the tread of horse and ox, and is ploughed by steam; and ere long, no doubt, our ministers will wind sermons out of barrel-organs, and our morning egg will be broken for us by a wafer of dynamite. Hence it comes that all classes are for "education!" The village grocer's son goes to a "theological college," and sits up by night over his "Evidences" with green tea in his blood, and a wet cloth about his brows. The gardener's daughter pulls roses no more, and has become a pupil-teacher; she is chlorotic at sixteen, and broken-spirited at twenty. The country parson's son goes to a civil service or a navy "coach," is plucked in his teens, and is left to begin life again with an exhausted brain and an incurable megrim; nay, even the sons of peers are putting on the armor of light, and are deserting the field for the counting-house. To meet this demand, colleges of all kinds and degrees spring up—middle-class seminaries, theological colleges, colleges of science, university boards—even the old universities themselves are stirring from their scholarly ease, are sending out missionaries *in partibus* and are cramming the youth of twenty counties in the art of making most show with least learning. All this, in a way, no doubt, must be and should be; but so sudden a volte-face cannot be made without a wrench, and it is my desire now to see where the strain will tell, and how to perform our social evolution with the least injury to persons.—Dr. T. C. ALLBUTT, in *Popular Science Monthly*.

**AN ADVOCATE OF PURE AIR.**—There are probably few persons in the community who believe Mr. George Francis Train to be the possessor of a very well-balanced intellect, however stupendous it may be in some of its capabilities; but, at all events (to use one of the not very elegant expressions of the day), his head certainly seems to be level in regard to the matter of ventilation and the virtues of fresh air. During one of his recent Sunday night "independent mass meetings" at the Broadway Theatre, he requested that all the windows might be opened, and at the same time rather startled his auditors with the following words: "I can feel the chicken-pox, measles, and all kinds of diseases coming from you. I am used to sitting in the pure air in the park, and I can smell the diseases here."

**THE ROLL OF HONOR.**—Additional deaths of medical men from yellow fever:

*Memphis, Tenn.*—Sept. 17th, Dr. John H. Erskine, Health Officer. Dr. J. G. Pennise, volunteer from Indianapolis, Ind. Sept. 18th, Dr. Hiram Pierce, volunteer from Cincinnati, O. Sept. 21st, Dr. J. G. Gorrell, volunteer from Fort Wayne, Ind. Sept. 22d, Dr. J. J. Heady, volunteer from Sherman, Texas.

*Canton, Miss.*—Sept. 18th, Dr. A. F. Cage.

*Holly Springs, Miss.*—Sept. 17th, Dr. F. M. Tennell.

*Fulton, Ky.*—Sept. 21st, Dr. Boaz. Sept. 24th, Dr. G. W. Kibbee, of Ohio (inventor of the fever-cot). Previously reported, 40. Total to date, 48.



## Original Lectures.

### THE CAUSES AND TREATMENT OF GLEET.

#### A CLINICAL LECTURE

DELIVERED AT THE JEFFERSON MEDICAL COLLEGE HOSPITAL,

By SAMUEL W. GROSS, M.D.,

LECTURER ON DISEASES OF THE GENITO-URINARY APPARATUS IN JEFFERSON MEDICAL SCHOOL.

(Reported for THE MEDICAL RECORD.)

THE NATURE AND CAUSES OF GLEET.—A GLANCE AT THE ANATOMY OF THE URETHRA.—THE LOCALIZATION OF GLEET.—THE INTER-RELATION OF STRICTURE AND GLEET.—THE USE OF BULBOUS EXPLORATORY BOUGIES.—METHODS OF TREATMENT FOR GLEET.—A DILATABLE BOUGIE, DESIGNED BY DR. S. W. GROSS, FOR THE CURE OF STRICTURE.

This man is 34 years of age. Seven or eight years ago he had an attack of gonorrhœa, which condition was never thoroughly cured. Since that time he has had a constant discharge from the meatus urinarius of yellowish white matter. The meatus is itself slightly inflamed.

#### THE NATURE OF GLEET.

Last Tuesday I brought before you a case of acute gonorrhœa, and I told you upon that occasion that gonorrhœa was properly divided into three stages—*inception*, *maturity*, and *decline*. The last stage of gonorrhœa, that of *decline*, is what is commonly known as *gleet*. In this last stage the discharge of pus is not thick, but is at first of a *mucopurulent*, and then of a *mucoviscid* nature. I should not say that the third stage of gonorrhœa is always known as *gleet*, but it is so known when the *mucopurulent* and *mucoviscid* discharge continues, *i. e.*, becomes *chronic*. *Gleet* is a *chronic*, or *subacute* inflammation of the mucous membrane of the urethra. In a general way *gleet* is a term for any disease of the urethra.

#### CAUSES OF GLEET.

In some instances it may arise from non-venereal causes; this is often the case in rheumatic and gouty persons, where the discharge is set up by the contact of the acid urine with the urethra. *Gleet* is a very common result of excessive venery. Again, it very frequently occurs when the passions are aroused, but the sexual appetite not gratified. Above all other causes, however, in their frequency at least, stand gonorrhœa and masturbation.

Some two years ago I wrote and published a paper on "Sexual Debility as a Result of Hyperæsthesia of the Urethra and of Stricture." Since then I have had an opportunity of examining some fifty confirmed masturbators among the patients at the Pennsylvania Insane Asylum, and in every case I found more or less gleet discharge due to the constant irritation of the sexual organs.

*Gleet* may depend on a diffused or limited inflammation of the urethra. The points most generally affected are the fossa navicularis and the bulb, and there is a very good reason for this. There is an immense amount of spongy tissue at the head of the penis, and this part is exceedingly vascular; such is also the case at the bulb. Hence, by reason of the

great vascularity of these parts, the inflammation is localized in them.

#### A GLANCE AT THE ANATOMY OF THE URETHRA.

Before going any farther, however, let me briefly run over the anatomy of the urethra. There are, as you see, two dilatations in the calibre of the urethra: this one just behind the meatus, which is called the fossa navicularis, and this one at the bulb. The surface of the urethra is, as you know, dotted with follicles. Some of these are the glands of Littre, and the others the mucous glands of the urethra. On each side of the crura are the glands of Cowper, and still farther back are the ejaculatory ducts.

This body here is what is known as the *veru montanum*, and on each side of it are the openings of the prostatic ducts. Van Buren, of New York City, says that the *veru montanum* is the seat of sexual pleasure. I am inclined to relegate this feeling to the end of the penis.

The prostate gland is nothing but a muscle made up from prolongations of the muscles of the bladder. I forgot to call your attention to this little pouch in the *veru montanum*. It is what is known as the *utricle*, and is thought by many to be a rudimentary uterus.

Just within the meatus urinarius, and opening from its upper wall, is the *lacuna magna*. In introducing a catheter, or urethral bougie, you are directed to carry it along the floor of the urethra. This is to prevent its falling into the *lacuna magna*. Should this happen it would give rise to a great deal of pain. Occasionally the opening of the *lacuna magna* is so far forward as to bisect the meatus urinarius, as it were, so that, in introducing the catheter, one does not know which is the proper opening. If the catheter goes into the upper one, however, it will, of course, at once be stopped.

#### THE LOCALIZATION OF GLEET.

In a great many cases of *gleet* the inflammation is localized in some one or more of the minute orifices opening into the urethra. In most cases this localization is in the *lacuna magna*, but in numerous instances I have traced the disease to the ducts of Cowper, the ejaculatory ducts, or the ducts opening on each side of the *veru montanum*. If the disease is so localized, it is, of course, very hard to get rid of it. In the *lacuna magna*, for instance, the only way to obliterate the virus is to slit up the *lacuna* with a pair of probe-pointed scissors, and then make some local application.

#### THE RELATION OF STRICTURE AND GLEET.

I did not mention in its proper place *phimosis* as a cause of *gleet*. It is one of the most common causes. It is also a very frequent cause of stricture, which is very rarely found to exist without an accompanying gleet discharge. By the way, I have discovered, after an extended series of investigations into this matter, that stricture is a cause of *gleet* in ninety out of every one hundred cases. I will venture to say, without having made any examination thus far, that this man's *gleet* is caused by the presence of one or more larger or smaller strictures.

The man says that seven or eight years ago he had an attack of gonorrhœa, and that the poison has never since been entirely eradicated from his system. The discharge of late has been thick and milky. When he gets up in the morning the lips of the meatus are almost always glued together by the discharge.

Let me ask him a single question. Yes; he says

that there is nearly always a retention of the last few drops of urine—he has to shake off the last few drops before he puts his penis into his pants. This is an unmistakable symptom of stricture, particularly when taken in combination with the other facts of the case. What is this retention of the last few drops of urine due to? There has been a local loss of expansibility in the muscle, due to the change which has taken place in the muscular fibres. (Each little papilla of the mucous membrane is provided with a muscle. The inflammation goes on to tissue changes, which transform the muscular into fibrous tissues. The great bulk of the urine is, of course, expelled by the muscles of the bladder; but, for the expulsion of the last few drops, reliance is laid in health upon the contraction of the muscles of the urethra. Of course, when these muscles are changed into fibrous tissue, there is no contraction possible, and so the last drops come away by gravity alone.

Why is it that at times, as the man tells us, there is no dribbling of the last drops? When his system is in perfect health, there is no spasm of the parts, and consequently no dribbling; but no sooner does the man grow careless, go off on a "spree," perhaps, and drink quantities of ale and beer, than the same old trouble returns.

I said to you some minutes ago that I was confident that this man had a stricture. Let us see. I try a No. 24 sound, and find that it will go in with perfect ease all the way to the bladder. You smile. Why, gentlemen, a man may have a stricture if a sound as big around as your thumb goes into his bladder without resistance. The stricture is simply so large that the sound does not detect it.

#### THE USE OF BULBOUS EXPLORATORY BOUGIES.

To detect a large stricture, we must use an exploratory bulbous bougie. This is an olive-shaped bulb, one of whose ends is abrupt and attached to a No. 8 flexible rubber sound. The other end is sharpened to a dull point. Now, it may be quite possible for this bulb, when moving forward, to pass the stricture without giving any sign of such a passage; but when you come to withdraw this bulbous bougie, if there be any stricture, in passing over it upon its withdrawal the bulb will give a very perceptible jump. Very often it is possible to diagnose the existence and seat of a stricture upon the first introduction of this bougie, by the resistance which is offered to its progress at one or more portions of the urethra. Some have charged that a bulbous bougie gives rise to erroneous impressions. So is any other physical instrument liable to give rise to erroneous impressions. It is said that the resistance offered to the progress of the bulbous bougie may be due to spasm, whereas we may, perhaps, have diagnosed the impediment as a stricture. A distinction between spasm and stricture may be very easily drawn. If the impediment be due to spasm, passage of the bougie backward and forward several times will cause the spasm to disappear entirely. The stricture will, of course, still remain. Again, in the case of spasm, the passage of the bulbous bougie gives a sensation as of rubbing over a blunt surface. In stricture, the bougie seems to encounter a sharp, resisting body.

By the aid of this bulbous exploratory bougie I am able to discover three strictures in this man's urethra. One, half an inch within the meatus; one, one and a quarter inch within the meatus; and one, five and a half inches back. Here is a statement which I will make to you, and which you will find generally trustworthy. In nine cases out of ten, if there be found

to be a stricture one-half an inch within the meatus, one or more will be found to be present farther back. I just now passed a No. 24 metallic bougie all the way into the bladder without being able to distinguish any stricture, and yet no sooner do I begin to use this No. 25 bulbous bougie than the strictures are found. Most physicians, after passing a large steel bougie into a man's bladder, and meeting with no resistance, would dismiss the case at once, and tell the patient that there was not the shadow of a stricture in his urethra. Thus it is that a great many of the larger-sized strictures are overlooked.

As I withdraw the bulbous bougie in this case, it gives a very decided little jump over the site of each of the strictures. See, too, as I bring out the instrument it is covered in places with a gleet discharge. Gleet has undoubtedly followed gonorrhœa in this case.

Before passing on, I want with the urethrometer to measure the size of this man's strictures, and also the calibre of his urethra. I find the first stricture to measure thirty-one millimetres, and the last twenty-five. The calibre of the urethra is forty millimetres, or nearly two inches in circumference. I need hardly say that this urethra is unusually large.

#### TREATMENT OF GLEET.

I want of course to restore the calibre of the urethra at the points of stricture, *i. e.*, to bring up the calibre of these points to forty. How am I to do it? It is hard to cure gleet. The mucous membrane of the urethra is extremely vascular, and when inflamed, as in gleet, presents the same appearance as does an inflamed cornea. The granular condition of the mucous membrane, in a great many cases of granular urethritis, is just that of the conjunctiva in granular conjunctivitis. It has a raspberry appearance.

I am employing the endoscope to see if I can discover a granulating patch at the site of the first stricture; but I find that it gives me no assistance.

I want for a moment, before proceeding to speak of treatment, to explore the lacuna magna in the upper wall of the urethra, just within the meatus, with a probe, so as to assure myself that there is no retention of the gleet discharge in that cul-de-sac. But I find, upon careful examination, that the lacuna magna is entirely normal, and contains no fluid.

Internal remedies are of little or no value in gleet. Of course, where the system is very greatly run down, it is well to put the patient upon some such preparation as the citrate of iron and quinia in ten-grain doses, or twenty drops of the tincture of the chloride of iron, two or three times a day, with two grains of quinia. If, on the other hand, the patient is plethoric, he should be given some saline and an antimonial mixture.

In treating the local symptoms, it is useless to give the patient a syringe, and let him use it himself, for the injection employed must be applied directly to the diseased spots, if any benefit is to be derived from it, and no one can so apply it but the educated surgeon. Moreover, such a kind of application should be made with a special form of instrument, so that it may reach the diseased surface, and it only. There are a vast number of syringes, etc., which have been designed for this purpose.

Some years ago I was accustomed to apply stramonium ointment and the nitrate of silver directly to the parts by means of one or other of these inventions. The application, would, of course, cause some local irritation. The patient would be dieted and sent to bed, and some demulcent drink, such as flaxseed or



slippery-elm tea, be administered. In other cases, again, I used the bulbed syringe, in which, after just passing the site of the stricture, the stream is projected backward. I have very often medicated strictures, by means of this instrument, with a strong solution of nitrate of silver, or with a mixture of cerate of opium and Goulard's extract.

Of late months I have undergone a change of opinion in the matter of the treatment of gleet. I now think that there is nothing in the world so good as the introduction of nickel-plated conical bougies and the simple overstretching of the inflamed parts.

Before proceeding to use an instrument of this sort, however, it is necessary in all cases to measure the normal calibre of the rest of the urethra, so that you may be guided in the selection of a bougie of the proper size.

But this man's urethra measures forty millimetres, and how, you will ask me, can you introduce a bougie of that girth without slitting up the meatus; and if you do slit up the meatus, how can the man project his urine with any certainty of keeping the stream clear of his clothes?

#### USE OF A NEW INSTRUMENT.

In cases like these I use an instrument which I have devised myself, after much thought on the subject, and which you will find described at length in a paper read before the New York Medical Journal Association, on May 24, 1878. (See MEDICAL RECORD for June 15, 1878, p. 461-2-3.) Before using this instrument, however, which was made for me by Mr. Tiemann, of New York, I divide the fibres of the two strictures, near the orifice of the urethra, with a tenotome. Such operations on the anterior portion of the urethra are very safe.

Without going into any detailed description of the above instrument, for you can easily find such a description by hunting up the reference just given, I will say that, after introducing it into the urethra, I can dilate the stricture to any desired size without affecting at all the calibre of the rest of the canal. This instrument is therefore valuable in that by means of it a stricture can be dilated without any operation upon the meatus.

To put what I say into practice, I now pass this adjustable bougie into the urethra, and by moving this screw, am able to stretch the strictured parts to the extent of forty millimetres. Of course I would not proceed so decidedly, were it not that this man has been very long accustomed to the contact of the bougie. The patient must return every two days and have this same operation repeated.

The above is my usual treatment, but in some instances I find it necessary to cut the stricture, *i. e.*, perform internal urethrotomy.

What advantage is to be derived from cutting, some of you will ask? Will there not be a cicatrix following the cut, and do not cicatrices tend to contract more and more all the time? Of course, if the sides of the cut are allowed to come together in the process of healing no good at all will have been done by the operation. The wound must be made to heal open: this is brought about by the daily passage of large bougies. In this way we will have, as it were, added to the calibre of the urethra at the point of stricture a band of mucous membrane equal in width to the combined width of the sides of the cut. Cicatrices of the derm and epiderm and of the mucous membranes of the rest of the body contract owing to the immense preponderance of fibrous tissue in their structure; but Dr. E. O. Shakespeare has discovered, in

the course of some recent microscopical investigations, that three-quarters of the bulk of cicatrices of the mucous membrane of the urethra are made up of elastic fibres.

## Original Communications.

### CASES OF ERECTILE, FIBROID, AND OTHER TUMORS TREATED BY ELECTRICITY.

By GEORGE M. BEARD, M.D.,

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THE following cases may be used as tests by which to illustrate certain facts and principles of surgical electricity which are not always well understood, or which are oftentimes forgotten by those who are investigating this subject.

What is here said may be considered as a general answer to various inquiries that are made of me by correspondents and medical friends, and as supplementary to my remarks on this subject at the recent meetings of the American Medical and Neurological Associations.

An infant had on the forehead a *nævus* of about the size of a quarter of a dollar. The tumor had been treated by injections of iron without satisfactory results. Dr. Sterling placed the child fully under the influence of chloroform, and I operated with ten cells and both poles for seven minutes. After a number of weeks the child was again brought into the office; the tumor had about half disappeared. Again the infant was chloroformed, and the operation was repeated on the part remaining. The result has been entire disappearance of the tumor. The slight scar is constantly fading, and by the time the child reaches the age when it cares for personal appearance, will have mostly, if not entirely, disappeared. After neither of the operations was there any unpleasant symptom.

I may remark here that *anæsthesia* and electricity are in a degree antidotes to each other; the operation of electrolysis seems to be one of the best possible means of preventing any evil effects from the chloroform. Infants on whom these operations are mostly performed are, however, able to bear full *anæsthesia* without any bad effects; the use of electricity at the same time makes the safety absolute. On the other hand, the *anæsthesia* neutralizes the exciting effects of the electricity, and prevents much of the exhaustion that might follow the use of powerful currents on the sensitive nerves of the face and head. For these reasons I never operate in these cases without an *anæsthetic*, and as chloroform is, under these conditions, entirely safe for young children, I always have that agent at hand and some one with me to give his whole time and attention to it. I have not yet seen any facts to justify the fear, oftentimes expressed by physicians and friends of the little patients, that the chloroform may work serious, if not fatal effects. Even when no electricity is used, infants seem to bear chloroform much better than adults.

An infant under three years of age had a subcutaneous *nævus* in the inner angle of the left eye. It was about the size of a filbert. Here the object was to bring about a disappearance of the tumor with the least possible disfigurement; the tumor was already a disfigurement. The philosophy of electrolysis in such cases is to cause a clot to be formed in the tumor, which would be slowly absorbed by natural processes.

Suppuration was to be avoided. Accordingly weak currents and a short operation were recommended and used. As usual, full anesthesia was produced, part of the time both poles, part of the time only the positive, being inserted. The effect was very satisfactory. After two months there was a reduction of the tumor at least one-half. After four months very little of the tumor remained, and the upper lid, which had been pressed down by the tumor, again looked almost natural. The same child had a small superficial nevus on the right side of the face, just in front of the ear. This was treated in the same way, and with satisfaction.

Cases like those above described present especial difficulties for electrical or any other treatment, because a scar is to be avoided. The same tumors on any part of the body could be removed in all cases by a single operation.

In regard to the age at which these operations can be performed with safety and success, I may say that the results are just as satisfactory with infants but a few months old as with children of several years. Where a tumor is growing, the sooner the operation is performed the better, for the scar, if any, will be less, and there will be more time for its gradual disappearance.

A child six months old was first seen by me in March, 1877. It had a nevus of the size of a large pea on the lower lid of the left eye. The family physician, Dr. Smith, gave the chloroform until the child was profoundly anesthetized, after which I operated with four and six cells and the positive pole alone for four minutes only. The cells were quite weak; this cautious method was purposely used for the reason that it was feared that a deep and strong operation would make too much destruction of tissue. Destruction of tissue in this locality would be likely to produce a scar that would cause contraction, and so draw down the lid into permanent disfigurement. To avoid this it was thought best to operate very carefully, and, if it were necessary, to repeat the operation several times. During this short operation the color of the tumor was changed, and it was hoped that something had been accomplished, but in this respect we were disappointed, for after a month the tumor was the same as before. The operation was then repeated in the same manner, but somewhat more boldly, a stronger current being used and for a longer time. The needles were inserted more deeply into the growth.

In cases like the above, the conservative course is the wise one. There would have been no difficulty in entirely removing the tumor on the first operation, but in so doing a scar might have been made that would have been both unpleasant and unnecessary.

In the case of an interstitial fibroid of the uterus that I treated by electrolysis as long ago as 1870-71, the negative needle was introduced through the vagina directly into the tumor, while the circuit was completed by means of a sponge applied over the hypogastric region or on the lower part of the back. The instrument used was my large spear-shaped needle, designed especially for that purpose, and for working up the base. No anæsthetic was used, and no great degree of pain was experienced. The current was mild and the operation was short. These operations were repeated a number of times. When currents of much strength were used the operations were followed by more or less suppuration, which, however, did no injury. All the accompanying symptoms—the anesthesia, the numbness, the hemorrhage—were quickly removed under this treatment. The same result by varying modes of application I have many times obtained in other cases since that time.

But I have never used strong currents or large needles through the abdomen. Small needles, however, I frequently use through the abdominal walls, and without harm; but in such operations I use mild currents and short sittings.

In regard to the needles there is no question that when the abdomen is to be penetrated, they should be as small as possible consistent with the possibility of introduction. Very large needles, such as were used by Drs. Kimball and Cutler in the treatment of uterine fibroids, are liable to injure by the *mechanical* effect attending their introduction. Small needles, properly made and properly introduced, will harm almost no part of the body except the eye and similar delicate structures, where no one would think of using them. The experience of hysterical women with hundreds of wandering needles in their bodies, illustrates this fact most clearly.

Mild electrolysis does not tend to excite spreading inflammation, but the changes wrought by the electrolysis are local, and do not tend to injury of any kind. In fact, I am confident that the electrolysis constricts the blood and absorbent vessels, and so far forth is antiseptic. The fatal and otherwise unpleasant results that have, in some hands, followed these operations, are to be explained mainly by the size of the needles, and by the use of too strong currents, or too long applications. I always begin with mild currents, studying the patient, and increasing as may be indicated by the behavior of the case.

Two cases are rarely to be treated just alike in medical or in surgical electricity. I have not yet had a fatal result from any electrolytic operation, although I have operated frequently through the peritoneum, as well as in the vagina, and on the face and forehead of very young infants. Irritative fever I have several times observed, particularly in a number of operations that I undertook in co-operation with the late Dr. A. B. Crosby; but no serious effects came from this fever in any case. I attribute this good fortune to the observance of the rule here enforced—to proceed cautiously in all operations until the temperament of the patient has been studied, and his capacity for bearing electricity been fully tested.

Another very important practical fact is that the suppurating point varies in different individuals, and in the same individuals at different times. In some operations, particularly in the womb, suppuration is to be avoided unless there is a good and free vent through the vagina; and, as in some persons a short and mild operation will produce suppuration, while in others a very long and severe operation will not have that effect, it is clear that the only safe course is to begin and to feel one's way along, watching the results of preliminary, mild, tentative operations before using great strength of current.

In the treatment of nævi, where little or no suppuration is desired, the same caution is to be observed.

In operating through the abdominal walls in either sex, even moderate suppuration is to be avoided—and with just precaution it can be—and even the escape of blood is to be guarded against.

In regard to the action of electricity on tumors these points are clear:

1. The cure of nævi (mother's marks) and aneurisms, is the direct and sole result of electrolysis or electro-chemical decomposition. The electro-chemical decomposition in such cases takes place in precisely the same way that it does in similar fluids out of the body—on purely electro-chemical principles, uninfluenced by the principle of life, except so far as the blood and other fluids of the living body are warmer



than the same fluids in a dead body, and therefore better conductors.

In all these cases, whatever influence the current may have on the nerves, or on nutrition in general, has little or nothing to do with the cure.

2. The reduction or dissipation of fibroids, goitres, and hard tumors of all kinds, or in any part of the body, is accomplished not by electrolysis at all, but by the action of the electricity, direct or reflex, on nutrition, and mainly through the nervous system.\*

The effect on the nerves may be both direct and indirect or reflex. In scientific language, therefore, it is an error to call the treatment of such tumors by electricity electrolysis. It is not electrolysis that causes the diminution or disappearance of such tumors. Indeed, unless the current be very strong, the amount of chemical change in such operations is almost nothing, in no way proportioned to the amount of reduction in the tumor. The rationale of the action of electrical treatment in such cases is *modification of nutrition*; this is proved in various ways.

(a) Without the needles at all, by mere outside applications with the sponge or cloth, important results in the treatment of tumors can sometimes be obtained; reduction and even entire disappearance of some kinds of tumors may be thus brought about. This I have proved in many cases. I frequently begin with external applications, but do not give up until I have also used the needles.

(b) The same results can sometimes, though not usually, be obtained in a milder degree by the *faradic* current alone, with external applications. But the faradic current has little or no electro-chemical action, and can only cause a reduction of these tumors by its mechanical action on nutrition.

In all naevi, including the three varieties—*on* the skin, *in* the skin, and *under* the skin—the needles are indispensable. In the treatment of epithelioma, also, it is useless to operate without the needles. In goitres and fibroids, something may often be accomplished by external faradization alone; although complete and satisfactory results demand usually the needles also—at least a part of the time.

(c) Certain tumors, as hydroceles, I have known to disappear after a single application of electricity—by means of a needle—lasting for but a second or a fraction of a minute, and before there was time for any electrolysis. The diminution or disappearance of ovarian tumors and cystics of various kinds are to be explained in the same way. In all these cases the amount of the electrolysis is always very small, and utterly disproportioned to the great change that sometimes takes place in the morbid growth. These tumors go down in a few days or hours after the operation, not as the result of any degree of electro-chemical change, but on account of the stimulation of the absorbents, and of the secreting surfaces of the nerves that nourish the tumor—in short, *by the effect of electricity on the nutrition of the parts*.

(d) The capriciousness and inconsistent behavior of many of these tumors under electrical treatment is only explained on this principle.

If the chemical changes were the sole cause of the results, they would be the same in all cases; there would be no caprice or inconsistency. In naevi the results do not depend, in any way, on the temperament of the patient, but only on the situation and size of the growth and its accessibility. With these qualifications, and the strength of the patient being

sufficient for the operation, the results would be as uniform as in operations on inanimate substances. But when the nervous system is to be acted on, the results must vary with the temperament of the patient. Practically this is the case with tumors, fibroids, or goitres, every way similar apparently. All treated by electrolysis, no two would give the same result. Some would utterly and entirely disappear; others would go down one-quarter, or one-half, or three-quarters, while others would go down not more than a small percentage. Such for years I have found practically to be my experience with tumors of this class.

On the other hand, naevi of all kinds (if not too large), and on all classes of patients, without regard to age or temperament, can be perfectly cured by electrolysis.

I have now under treatment a lady who has on the neck a fibrous goitre of large size. The neck measured at the beginning of the treatment seventeen and one-half inches, and was a bad disfigurement. The lady had been afflicted a number of years; and already the tumor was pressing so much upon the trachea and the œsophagus that both swallowing and breathing were interfered with to an alarming extent. The patient was much troubled, especially at night. Ordinary surgery, according to the opinion of her family physician, Dr. Mason, was not to be recommended, and it was decided to make a prolonged use of electrical treatment in the various methods of application. No anæsthesia was tried; but the skin where the needles were introduced was anæsthetized by means of a mixture of carbolic acid and ether. Only the negative pole was connected with the needle, the connection being kept up by a sponge applied on the skin. In this way a current from eighteen, and even from thirty cells could be borne without serious pain. The tumor went down an inch and a half in two weeks. Even before any needles had been used, under merely external applications, all the symptoms—pressure on the trachea and œsophagus—had been removed. The patient is still under treatment. During the last few weeks injections of ergot have been combined with the electricity, and with evident good effect. There is prospect of entire or approximate cure. For an electrode I have used in her case the hypodermic syringe connected with the negative pole. The syringe is filled with the fluid extract of ergot, which is slowly injected. The needle acts upon the tissues, and makes a small cavity for its reception. This combination of electrical and hypodermic treatment is the best way yet known for the reduction of such cases.

It is a common, indeed almost universal, error to say that the rationale of electricity is not understood; that its use in medicine and surgery must be purely empirical. There was a time when this statement was true; but it is true no longer, and it has not been true for a number of years. At the present time there is probably no remedy in common use the rationale of which is, on the whole, better understood than electricity, although the facts and reasonings on the subject have not yet been diffused widely among the profession. When we use electricity for any tumor or in any nerve malady, we have, or can have, a pretty definite reason for so doing, and the reason can be stated in language by those who are familiar with the subject. Very true, we do not comprehend the ultimate mystery of its action; but we do not comprehend the ultimate mystery of anything in nature. The mystery behind electricity is no greater than the mystery that lies behind all natural phenomena. The results of electrical treatment are, it is true, modified by the temperament of the patient; but so likewise

\* The only apparent exception to this statement is when suppuration is excited by the use of strong currents, and the tumor, so to speak, runs away.

are the results of all remedies whatsoever. As much uniformity attends the action of electricity as any or as most of our stimulants, sedatives, and tonics.

## A CASE OF AMYLOID INFILTRATION OF THE EYELID AND ORBIT, WITH REMARKS.

By CHARLES STEDMAN BULL, A.M., M.D.,

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Read before the American Ophthalmological Society, Newport, July 25, 1878.

AMYLOID infiltration and degeneration of the tissues of the lid and orbit is a very rare disease, and hence the interest which attaches to this case.

A.D., *at.* 4½, born in New York of Spanish parents. The boy has never been robust and is of marked strumous diathesis. Has had frequent attacks of phlyctenula keratitis, and bears numerous cicatrices in the neck of former glandular suppuration. Has a pale, waxy complexion, feeble pulse, and is of stolid demeanor. First seen by the writer January 24, 1876. About three weeks before, the child woke up one morning with a slight redness and swelling of the outer part of the left upper lid near the orbital margin. There was no pain and no secretion from the conjunctival surface. These symptoms steadily increased until he was brought for treatment. At this date the left eye was almost completely closed by the overhanging swollen lid, and the child had lost all power over it. The skin was moderately reddened, but there were no superficial vessels visible either on the lid or vicinity of the face. The swelling was a tense, hard, uniform thickening of *all* the tissues of the lid apparently, being most marked near the outer canthus. The eyeball was markedly limited in its motility upward and outward, but moved freely in other directions. The media were clear and there was nothing abnormal in the fundus. The lid could not be everted, and the sulcus between the lid and the superior margin of the orbit was filled up by the inflammatory process, so that the finger could not be pressed in between the roof of the orbit and the eye. There was no tenderness on pressure along the orbital margin, and the child never complained of any pain. It seemed probable that this was a low grade of cellulitis of the lid and its attachments, and possibly also of the tissues of the orbit. The infiltration was limited on the temporal and nasal sides by the external and internal canthal ligaments, but spread back into the orbit. The symptoms slowly progressed to February 16th, when there was a decided increase in prominence of the upper lid, the eyeball was pushed more downward and inward, and at the same time there began to be some exophthalmus. All motion of the eye upward was lost. The palpebral and ocular conjunctiva was very much injected, and there was some muco-purulent secretion. Vision was still normal and there was no change visible in the fundus. For the last two nights the child had complained of pain in the orbit and forehead. Two days later the pre-auricular gland was noticed to be indurated and swollen, and the general condition of the child was unsatisfactory. Up to this time a simple, tonic, restorative and expectant plan of treatment had been followed out, and in addition potass. iodid. was now administered. On March 21st the symptoms were all very much increased, the exophthalmus more marked, very little motion of the eye; there was an ulcer of the

cornea just above the centre, with a rather wide zone of opaque infiltration around it; the pre-auricular gland was larger, and the swelling was more pronounced along the superior orbital margin, and encroached upon the forehead. For the last few days there was a deep-seated pain in the orbit and great febrile action all through the night. It was decided to make an exploratory incision into the orbit, in hopes of finding an abscess and giving exit to the pus, the opinion being still held that it was an orbital cellulitis. After much demur the parents consented, and on March 3d the patient was etherized and an incision one and one-quarter of an inch long was made along the orbital margin from the supraorbital groove outward, and about half an inch deep. This cut was made through a very dense, unyielding tissue, and did not open into the orbital cavity, so dense was the infiltration. The incision was then deepened until the bony edge of the orbital roof could be felt, and then a straight, sharp bistoury was thrust backward for about an inch, keeping the blade well away from the eyeball. Not a drop of pus was met with, and the tissues of the orbit were found densely infiltrated and converted into a brawny mass. The hemorrhage scarcely amounted to a few drops, and came almost entirely from the vessels of the skin. A small, irregularly quadrilateral piece of brawny tissue was removed from the orbit through the incision, and when washed, was of a dirty yellow color, absolutely bloodless and very dense, like the thick rind of bacon. The immediate result of the incision was a slight diminution of the orbital tension, so that there was less complaint of pain, and the eye seemed a little more movable, but this effect was merely temporary. The pain returned and the exophthalmus seemed to increase again after the closure of the wound, which occurred on the sixth day. On March 10th, the whole cornea became hazy, the infiltration spreading from the central ulcer. The latter had not perforated, but the pupil had become contracted and could not be dilated. On the 12th, a purulent discharge began in the left ear, accompanied by severe pain in the ear and left side of the neck. The child cried almost constantly with pain in the eye and ear, had a high fever, pulse 140, and the mother said that he neither ate nor slept. On March 15th, the cornea sloughed at the centre, and the iris and lens prolapsed in the opening. It was now deemed advisable to enucleate the contents of the orbit at once, but this the parents refused to have done, and they withdrew the child from observation. It was afterwards learned that the child lived several weeks longer, became very much emaciated, and died comatose. No autopsy was allowed.

The infiltrated tissue removed from the orbit through the long exploratory incision gave the usual reaction with iodine and sulphuric acid; turning brownish red in spots on the addition of a watery solution of iodine, and changing into a dark blue, almost purple, when sulphuric acid was used.

The microscopical examination of the specimen was not entirely satisfactory, owing to the small amount of tissue at hand. After hardening in Muller's fluid and alcohol, sections were made, which showed in some isolated spots a luxuriant granulation tissue. There were very few vessels, and in those which existed the walls were very much hypertrophied, mainly at the expense of the calibre of the vessel, which in some could scarcely be distinguished. The infiltration seemed to involve not only the coats of the vessels, but to extend for a greater or less distance into the surrounding connective tissue. This condi-



tion of the orbital tissue plainly accounted for the small amount of hemorrhage. The infiltration had involved the walls of the blood-vessels, had narrowed their calibre, and eventually obliterated the vessels altogether. There was very little trace of either connective or adipose tissue, but the main mass seemed to be a homogeneous, structureless infiltration.

From a clinical standpoint, the morbid process, without doubt, began in the orbital tissue, and probably not far from the tarsal fascia and palpebral ligaments. The infiltration spread forward into the lid and upon the forehead, as well as backward into the orbit, and the latter direction was not taken until after the disease had lasted for some time, for the exophthalmus was a comparatively late symptom. It would have been extremely interesting to have been able to follow the extension of the infiltration into the tissues of the lid, and note to what degree they were involved. Towards the last the lid felt more like a piece of sole-leather than anything else, so dense, unyielding, and homogeneous did it seem to be.

Whether the perforation of the membrana tympani with the purulent otitis media had any connection with the orbital process, it is impossible to say; but it is probable that there was some such connection. The death of the child by coma, preceded by other brain-symptoms, points almost conclusively to an extension of the orbital process backward into the cavity of the skull, and in this way the ear may have become secondarily involved. It is very unfortunate that the history of the case could not be completed by a careful autopsy.

47 EAST TWENTY-THIRD STREET.

## TWO CASES OF PERITYPHLITIC ABSCESS—OPERATION—RECOVERY.

By ALFRED NORTH, M.D.,

WATERBURY, CONN.

CASE I.—MRS. A. P., a woman of fair constitution, but of nervous temperament, was, on Nov. 6th, seized suddenly and without premonition, with a severe colicky pain in the abdomen, vomiting every fifteen or twenty minutes, her abdomen being swollen and everywhere very tender to the touch, especially so over the right iliac region. The pain not being relieved by fifteen drops of Magendie's solution of morphine (per mouth), I gave the same amount an hour afterwards by a hypodermic injection. This had the effect of relieving the paroxysm of pain for a few hours, when it returned, and the injection had again to be used. Pulse, 120; temp., 105°.

Nov. 7.—Patient has passed a restless night; pain in bowels severe, except when thoroughly under the influence of opium. Tenderness over the abdomen so great that she will not allow any examination of the bowels, however carefully made. Fulness over the right side is already beginning to be recognized. Ordered ten leeches over the ileocaecal region, and 1 gr. doses of opium to be given every hour until narcotism is obtained.

Nov. 9.—Patient expresses herself as feeling much better. While moderately under the influence of anodyne she has but little pain in the right side; the outlines of the tumor can be indistinctly recognized occupying the right iliac fossa, extending from the ant. sup. spinous process three inches inward, and about the same distance above Poupart's ligament. Dulness on percussion very marked; the point of

greatest tenderness is about an inch inside of the ant. sup. spinous process.

Nov. 12.—One week from the commencement of the attack, Dr. G. L. Platt, of this city, joined me in consultation, confirming my diagnosis of ileocaecal abscess, but advising delay in operative interference, and the application of tincture of iodine over the right iliac region.

Nov. 16.—Patient's general condition improved; takes considerable nourishment; has no nausea; pulse and temperature both continue about 100; has but little pain, and that confined to one or two paroxysms in twenty-four hours; has some general swelling of abdomen, though that over iliac fossa has almost entirely disappeared. Although the tumor can be better recognized and its boundaries are apparently extending, little pain is caused by percussion and handling. She sits up an hour each day, and will not now give her consent to an operation, even of an explorative nature.

Nov. 23.—Patient's general condition for the last three days not so good. Pulse 100, temp., 101°. Complains of more pain over tumor, the deeper outlines of which can be more distinctly recognized, and are found extending inward and upward, although showing no disposition to open externally. The skin is everywhere natural in color and supple, no fluctuation present; has had no chill from the beginning. The point of greatest tenderness remaining as at first. I now insisted upon an operation, to which she finally gave her consent, and the time was appointed for the following morning.

*Operation.*—With the assistance of Dr. Platt, the patient was etherized, and an examination was made per vagina and rectum, which revealed nothing abnormal. There being no prominent point of the tumor to serve as an indication of the approach of pus to the surface, an aspirator needle was now put in at the point of greatest dulness and tenderness, which had remained unchanged from the first. About 2 drachms of sanaceous pus, having a very strong faecal odor, was obtained after the needle had entered about two inches. I then made an incision about two inches in length along the outside of the needle, cutting down through integuments, subjacent tendinous and muscular layers until the transversalis fascia was reached. I now withdrew the needle, which had served as a guide and aspirated again, obtaining only a few drops of purulent fluid. Being so much disappointed in finding apparently a hard, unyielding tumor instead of fluctuation, and in obtaining so little pus, I did not proceed farther, but dressed the wound openly. On the following morning, finding my patient had passed a bad night, with no symptoms relieved, I opened through the transversalis fascia, enlarging the opening with an ordinary hernia-knife, which procedure was followed by a free discharge of pus. Dressed wound from the bottom with lint and a dressed cotton wick, over which was placed a poultice.

Nov. 25.—First day after operation. Patient has passed a quiet night, sleeping most of the time; complains of feeling very weak and faint; irritability of the stomach gone. She now takes nourishment of milk and beef-tea. Cavity of abscess washed out with a solution of carbolic acid, strength 1-60. On syringing out the wound there was considerable escape of gas. This was followed by fainting and temporary exhaustion. Pulse, 100; temp., 100°. General swelling of bowels subsided. Continued poultice and greased cotton-wick in the opening.

Fourth day after operation. Patient's general con-

dition continues to improve. The fainting and nausea, which lasted for several hours, and was thought to have been due to too much force being used in washing out the cavity the preceding day, has not returned. Pulse, 100; temp., 99°. Swelling and tenderness of bowels almost entirely disappeared. Has had no trouble in passing water since the operation. The use of 15 drops of Magendie's solution of morphine, once to three times in twenty-four hours, is continued. Had two small movements of the bowels to-day. Morning and evening an elastic catheter is introduced into the wound, and the cavity of the abscess gently washed out with carbolic acid solution.

Tenth day after operation. Although anæmic, her general condition much improved. Pulse, 90; temp., 99°. Sleeps without the aid of anodyne. Wound granulating, and discharge from the abscess healthy in character, and gradually diminishing in quantity. Ordered tinct. ferri. mur. 20 drops three times a day.

Dec. 16.—Midwinter. Started for Canada alone to see her parents.

CASE II.—Etta Humphrey, age 6 years, of healthy parentage. Was first seen Feb. 20, 1873. For the past two weeks patient has complained of pain over the abdomen, which was especially acute over the right iliac fossa. She states that a few days previous to the first attack, while sliding down hill, she was thrown from her sled, sustaining injuries which gave her considerable pain.

This passed off in a few hours, but soon returned, and continued to increase up to the time of my first visit. Her mother, suspecting worms from her pain and groaning during the night, had treated her accordingly. On examination I found the abdomen everywhere tender to the touch and moderately tympanitic, but especially tender and sensitive over the right iliac region, rendering a thorough examination almost impossible. Suspecting the formation of a perityphlitic abscess, I applied sixteen leeches at two different times and thoroughly fomented the bowels; this had the effect of relieving the symptoms of general peritonitis and locating the trouble in the iliac region.

On re-examination, one week from my first visit, and the twentieth day from the first commencement of the trouble, I find the little patient suffering intense pain in the right side.

Over the outer half of Poupart's ligament and near to it there is a circumscribed, deep-seated tumor, which is dull on percussion, but at no point can fluctuation be detected.

Explaining the nature of the case to the mother, and her consent being obtained, I at once proceeded to the operation.

Etherization being entrusted to my student, I made an incision parallel to Poupart's ligament, two inches in length, commencing about two fingers' width above the anterior superior spinous process of the ilium. The dissection was carefully carried down through the aponeurotic and muscular parietes until the fascia transversalis was reached. This was carefully opened with a tenotomy knife, and upon its withdrawal two ounces of pus were discharged; through this small opening the finger was introduced, the opening enlarged, and the cavity explored. No foreign body was found. Wound dressed with lint and greased cotton wick.

Second day after the operation. I found the condition of my little patient much improved. Expresses herself as feeling entirely relieved, fever and general excitement gone.

Eleventh day after operation. As the patient complained of a pricking sensation in the wound, an

examination was made, leading to the discovery and removal of an ordinary brass pin. It is now supposed that this pin was very probably the origin of the trouble, having been accidentally swallowed by the patient, and become lodged in the appendix. Fourteen days after operation, the little girl was up and running around the house.

Although in Case I. the operation was delayed until the eighteenth day, I think, as a rule, we should not wait after the first week or ten days before making an exploration with the aspirator, and if pus be found, no delay should be had in operating.

In a case of a young man which came under my observation, who had been threatened with perityphlitic abscess for twelve days, in which matter was thought to be formed or forming, a delay of three days was proposed, but after waiting forty-eight hours, patient died with symptoms of acute general peritonitis following, it was thought, from perforation.

No post-mortem could be obtained.

We should not wait for fluctuation, for often that will not be recognized, even though only the transversalis fascia interpose between the accumulation and our finger.

The point of greatest tenderness and dulness is the place that should be first aspirated. This will generally be found to be within one inch of the anterior superior spinous process. If matter is not found, we should lose but little time in making a new trial rather than let our patient run the risk of perforation and death.

It is important that the wound should be kept freely open, and that great care should be exercised in the first dressing and syringing, that no injury be done to the walls of the abscess, that may be very thin and easily ruptured.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

ANEURISM OF THE TRANSVERSE AND DESCENDING PORTION OF THE ARCH OF THE AORTA—DIFFICULTY OF DEGLUTITION AS AN EARLY SYMPTOM—NO HISTORY OF EITHER RHEUMATISM OR SYPHILIS.

A MALE patient, æt. 33 years, gave the following rather indefinite history: He was well up to two months ago, when he began to have trouble about his heart, consisting of "soreness" in that region, a moderate amount of palpitation, and shortness of breath upon going upstairs. He also had slight cough, yet little or no expectoration. He restrained the cough as much as possible, because the act gave him pain. He had also noticed considerable difficulty in swallowing solid food, and placed his hand over the upper part of the sternum, thus indicating the seat of the obstruction to its passage. There had been no change in the voice. The only other symptom of which he complained was a "sense of weight about the heart," which prevented him from lying upon either side; if he turned upon the side there was a sensation as if the heart was sliding down upon that side, whichever it might be. He gave no history of articular rheumatism, and denied having had syphilis.

Physical examination.—On inspection, the veins upon the anterior and left side of the chest and neck



were found more prominent than upon the right, and there was a slight bulging in the left infraclavicular region; the bulging also somewhat involved the upper sternal region. He said he received a blow at that place about two years ago. On palpation, a distinct heaving impulse was given to the hand when placed over the region occupied by the bulging. The apex-beat was felt a little below and to the left of the normal position. A distinct impulse was felt to the left as the finger was crowded down behind the top of the sternum.

On percussion, there was dullness over the region where the bulging existed, being five and one-quarter inches in extent. On a level with the second rib, it commenced just at the right border of the sternum, and extended to the left five and one-quarter inches. There was no dullness upon percussion behind.

On auscultation, there was entire absence of respiratory murmur over the region occupied by the bulging. There was exaggerated respiration in the infraclavicular region upon the right side. There was less vesicular respiration upon the left side of the chest than upon the right. Over the left scapula there was heard more definite bronchial breathing than in the normal chest.

There was no cardiac murmur either at the base or at the apex. Over the region occupied by the bulging a double murmur was heard, synchronous with the first sound of the heart, and heard with greatest intensity at the junction of the second rib with the sternum upon the right side, but heard with distinctness over the second rib upon the left side. Upon both sides it was conveyed upward.

There was a marked difference in the radial pulses, the right being much less forcible than the left. When the patient was placed in the horizontal position his face became very turgid.

*Diagnosis.*—Aneurism occupying the transverse and descending portion of the arch of the aorta.

The Visiting Physician remarked there was one quite significant symptom in this case, and that was the difficulty of deglutition. Difficulty of deglutition might be present in connection with any form of thoracic aneurism, but when the aneurism involved the descending portion of the arch, it did not usually make its appearance except as a late symptom. In some cases the obstruction was so great that patients would not attempt to swallow solid food for a long time prior to death. This patient said he was obliged to "wash his food down if it was solid."

There was evidently some obstruction to the current of the circulation upon the right side; there was marked feebleness of the right radial pulse, but there was not such marked obstruction to the general return circulation as was sometimes noticed. It was not an uncommon symptom with aneurism of the transverse portion of the arch of the aorta for the patient to feel as though something was falling from the left to the right side. In this case such a sensation was felt whenever he attempted to lie upon either side.

Aneurisms occurring in persons who were the age of this patient were due either to rheumatism or to syphilis. He always expected to find syphilis as a cause of aneurism occurring in patients under forty years of age, and rarely found cases in which rheumatism had caused sufficient degeneration of the arteries to give rise to aneurism.

The fact that this man has not given any evidence of constitutional syphilis was not sufficient to exclude it as a cause of his aneurism.

There might have been some slight manifestation of the disease which the patient did not recognize. It

was not infrequently the case that patients passed through the entire history of syphilis and had arterial degeneration, without once being conscious that they were victims of the disease. In fact, syphilitic degeneration of the coats of the arteries occurred most frequently in those cases in which a syphilitic history was not particularly well marked. Aneurism occurred much less frequently among those who gave a well-marked history of chronic syphilis than in those who had only a very few manifestations of the disease.

#### HYDROCELE.

The case had been treated by making multiple punctures (fifty or sixty) with an exploring needle. It was doing very well, and the inflammation which had followed the operation, it was thought, would accomplish the thing desired in this class of cases.

#### SPERMATOCELE—HYDROCELE.

The patient had a spermatocele upon the left, and a hydrocele upon the right side. The spermatocele had been aspirated three times, and each time the milky fluid withdrawn had been found to contain spermatozoa.

The hydrocele was treated by the multiple-puncture method, fifty punctures being made.

#### ENLARGED SPLEEN, PRODUCED BY MALARIAL POISONING, AND OCCURRING IN A CHILD ONE YEAR AND NINE MONTHS OLD—ABSENCE OF CACHEXIA.

The case was interesting because the disease occurred in so young a child. The child was perfectly healthy up to six months of age, when the family moved into a new locality. In that locality all the family, consisting of father and mother, and two children, had been sick with some kind of fever, accompanied by pains in the limbs, vomiting, and purging. The father was said to have had "brain fever" (probably a malarial manifestation). He was sick six weeks, and was unconscious considerable of the time. All the members of the family except the patient had suffered from at least two attacks. The child recovered after a sickness lasting seven or eight weeks, and it was then noticed that the abdomen began to enlarge, and from that time it had gradually but continuously increased in size. The countenance was bright and intelligent; he was quite well nourished; the skin was somewhat pale and slightly tinged with yellow, but there was no cachectic appearance. The abdomen was irregularly enlarged; the enlargement being more prominent upon the left than upon the right side. In the left side of the abdominal cavity there was a solid mass that could be readily grasped with the hand. The tumor extended from the left of the median line, downward to the crest of the ilium, and upward to the eighth rib. The skin over the abdomen was considerably discolored, but there was no marked emaciation. The conclusion was that the abdominal tumor was an enlarged spleen.

Hepatic dullness extended to about two inches below the free border of the ribs, but it was not regarded as abnormal. It was thought that the size of the spleen would rapidly diminish if the child could be removed from the city; at least he must be removed from the locality in which he was living. In addition to change of locality, quinine was recommended, but the change must first be made.

The existence of such an enlargement of the spleen without cachexia was quite remarkable. In such chronic cases, it was stated as a matter of individual experience that arsenic was a more efficient remedy than quinine.

#### RUPTURE OF THE LIGAMENTUM PATELLÆ—SUPPOSED FORMER FRACTURE OF THE PATELLA.

A male patient, æt. 47 years, was admitted into the hospital on account of an injury in the vicinity of the patella. Six years previously, while carrying a heavy trunk, he was upset by another porter, and upon attempting to raise himself he found that it was impossible. A surgeon was called, who said that he had received a fracture of the right patella. For that he was treated and in due time recovered. When admitted to the hospital the parts about the knee-joint were very much swollen, the patient was able to flex the limb slightly, but was incapable of making the slightest extension. The surgeon could make flexion and extension without giving the patient very much pain, and upon manipulation it was thought that the ligamentum patellæ was wanting—the finger passing immediately from the head of the tibia into the knee-joint. The patella was about three-fourths of an inch higher than upon the opposite side. The swelling was reduced by the application of ice about the joint for three days. When it had subsided, the diagnosis of rupture of the ligamentum patellæ was verified. An interesting point in the examination was the fact that, by the most careful manipulation, the surgeon was not able to find any separation of the fragments, hence he was led to doubt the truth of the statement that the man had formerly suffered from fracture of that bone. It was found, however, that the tubercle of the tibia was somewhat displaced, and it was thought that the injury formerly sustained was the same as that from which the man was then suffering.

The indications for treatment were the same as for fracture of the patella.

#### EXOPHTHALMIC GOITRE—PERSISTENT AND PROLONGED INCREASED FREQUENCY OF THE PULSE AND CARDIAC PALPITATION—ABSENCE OF ENLARGEMENT OF THE THYROID BODY.

A male patient, æt. 22 years, was seen who had been under observation since January, 1876. He was a German, a grocer by occupation, and there were several points of interest in his case.

In January, 1876, he was examined with the greatest care with reference to his heart. There was nothing important in his family history. In 1874 he had an attack of articular rheumatism, which was not very acute. He was a temperate man, had never indulged in self-abuse, and had had gonorrhœa only once. In 1872, having never had any previous sickness, he first began to suffer more or less from palpitation of the heart, which had continued to disturb him up to the date of the first examination in 1876. At that time his pulse, was 200 to the minute. There was no distinct cardiac murmur; merely a suspicion that there was a mitral direct murmur. There was *no enlargement* of the heart. There was no enlargement of the thyroid gland. The eyes seemed to be a trifle prominent, but it was not regarded as abnormal. Such were the important points in the case in January, 1876. In November, 1877, the condition of the patient was as follows: He had continued to suffer from palpitation since January, 1876. He had had irregular attacks of palpitation, but during the last two weeks it had been constant, and he felt "great want of breath" upon slight exertion. The palpitation occurred independent of exercise, and was developed while the patient was sitting or standing, and making no exertion whatever. The increased frequency of the heart's action had continued, and the average had been 126 to the

minute. There was no doubt that the prominence of the eyes was abnormal; the projection was marked, but moderate. The apex-beat of the heart was in the usual intercostal space, but was carried about one inch to the left; the impulse was strong. From the strength of the impulse it was regarded as safe to say that the moderate enlargement of the heart was due to hypertrophy.

When the stethoscope was placed over the apex there was heard a rough murmur, preceding and ceasing abruptly with the commencement of the first sound (mitral direct): with the first sound there was heard a rather feeble blowing murmur (suspected mitral regurgitant).

There was no enlargement of the thyroid body.

The moderate hypertrophy of the heart had been acquired since January, 1876, and also the cardiac murmurs. It was regarded as a rational supposition that, with the attack of rheumatism from which he suffered in 1874, he had endocarditis, and the case was therefore interesting as illustrating the fact that several years were sometimes required for an endocarditis to develop lesions represented by physical signs.

The case was also interesting as illustrating how increased frequency of the heart's action might be prolonged, and yet not be attended by serious results.

There were present, then, prominence of the eyes, a persistent increased frequency of the pulse (having existed since January, 1876), persistent palpitation of the heart (having been present about eight years) and a certain amount of cardiac hypertrophy. The case was therefore diagnosticated as one of *exophthalmic goitre*, or Graves' disease, notwithstanding the absence of enlargement of the thyroid body. It was regarded as a rare form of the disease.

The treatment was directed to the functional disease of the heart. The object was to slow the frequency of the heart's action. For that purpose aconite or digitalis was recommended in such doses as were necessary to maintain the "continuous effect" of the drugs. Reference was made to one case in which tr. of aconite, administered in single-drop doses three times a day, produced a most satisfactory effect. The aconite had been tried in the present case, but it did not affect the patient so favorably as did digitalis. In this patient there was no evidence of *anæmia*, which usually accompanies Graves' disease. Chalybeate tonics were advised for the *anæmia* when present, and attention directed to the importance of proper hygiene.

It was remarked by the Visiting Physician that recovery was not impossible, that marked improvement was not of infrequent occurrence, and that the disease did not exhibit much tendency to destroy life.

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INTRODUCTORY LECTURES.—The opening exercises of the seventy-second regular winter session of the College of Physicians and Surgeons took place in the college building, on Tuesday evening, Oct. 1, 1878, at 8 o'clock. The introductory address was delivered by Prof. Fessenden N. Otis, M.D. The exercises at the opening of the regular course of lectures at the Bellevue Hospital Medical College took place on Wednesday evening, October 2d, at 8 o'clock. The introductory address was delivered by Prof. Joseph D. Bryant. The introductory lecture to the course of the Medical Department of the University of the City of New York was delivered by Prof. J. Williston Wright, M.D., on Tuesday, Oct. 1st, 1878, at 8 o'clock p.m. All of the schools are well patronized, and the different classes bid fair to exceed in size those of last year.



## Progress of Medical Science.

ON THE CHANGES IN THE MEDULLA OF THE LONG BONES, WHEN INFLAMMATION IS EXCITED EXPERIMENTALLY IN ONE OF THEM.—In the course of his investigations on the experimentally excited inflammation of the bones, Prof. Busch, of Berlin, was struck with the fact, that the changes, in some cases, were not confined to the bone operated on, but that, on the contrary, the medulla of all the long bones was more or less affected. The changes presented all degrees of variation, from simple hyperæmia of the fatty marrow to complete transformation of the same into red (lymphoid) marrow. They were most marked when the inflammatory irritant employed was sufficiently intense in its action to cause mortification and to prove fatal inside of a week. When the inflammatory reaction was not so intense, and the dogs were not killed until the end of six or eight weeks, the bones not operated on usually presented no change.

The changes were not equally intense in all the uninjured long bones. They were invariably most marked in the humerus, and next in the femur; the tibia, radius, and ulna presented much more resistance to the morbid process. In the highest grades of the change, the marrow was fluid, and all trace of fat had disappeared. No blood-vessels even could be found in the portions removed for examination; it seemed as if the blood had circulated not in closed canals, but in cavernous spaces. The field of the microscope was filled in about equal proportions with red blood-corpuscles, and with round or jagged colorless cells, each of which possessed a large, round nucleus. Nucleated red blood-corpuscles were absent, or present only in very small numbers. In one case some of the nuclei of white cells were distinctly colored by hæmatine. Between these advanced changes and pure fatty marrow, all possible intermediate stages were found. In none of the cases was the spleen enlarged, but the lymphatic glands situated near the focus of inflammation were invariably much swollen.

The microscopical appearances in these cases were very similar to those met with in some cases of leucæmia. Macroscopically the changes resembled perfectly those of acute anæmia, which have been studied experimentally by Neumann and Litten and Orth, but microscopically they differed in the proportions of nucleated red blood-corpuscles. Prof. Busch believes that the septicæmic character of all the cases that proved fatal during the first week, had an essential influence in the production of the changes in the marrow.—*Berliner klin. Wochenschrift*, April 1, 1878.

MANTEGAZZA'S GLOBULIMETER.—This simple and ingenious apparatus consists of a cylinder for the reception of the blood, a turning disk, and a stearine taper. The cylinder is supplied with glass windows. The disk has five round openings at its periphery, which are numbered in order: No. 1 is blank, and is marked plethora; No. 2 has four blue glasses, and is marked average in man; No. 3, nine glasses, marked average in woman; No. 4, fourteen glasses, marked slight anæmia; No. 5, twenty glasses, marked anæmia. The observer looks at the flame of the taper through the openings in the disk and the blood in the cylinder, and the condition of the blood is determined from the number of blue glasses that must be used before the flame becomes invisible.

The following is the method of investigation: A small vein in the hand is opened, and one cubic centimetre of blood is drawn by aspiration into a graduated pipette and emptied into a glass containing exactly 96 grammes of a solution of carbonate of soda (one part soda to two parts water). This is stirred briskly for a few moments and then poured into the cylinder. The disk is then attached to the cylinder, and the observer looks through opening No. 1 and the diluted blood at the flame of the candle, which is placed at a distance of one metre. The investigation must of course take place in a dark room. If the flame be invisible, the blood is plethoric; if visible, the observer turns the disk until opening No. 2 is before his eye, and so on until he can no longer see the flame. The inscription over the opening at which the flame becomes invisible gives the condition of the blood. For more exact investigation a second disk or cylinder is supplied, on which any number of glasses, from one to forty, can be placed. As Prof. Mantegazza has determined, after careful and repeated experiments, that each blue glass corresponds to 125,000 red blood-corpuscles, it follows that the number of red corpuscles contained in a cubic millimetre of the given blood can be reckoned with great accuracy from the number of glasses required to hide the candle flame. The very slightest differences or changes in the blood of a patient can in this way be determined with but little expenditure of time and patience. For ready reference Prof. Mantegazza has prepared a table giving the number of blood-corpuscles corresponding to each combination of glasses from one to thirty. The following will serve as an example of the table:

|           |           |                |                 |
|-----------|-----------|----------------|-----------------|
| 0 glasses | 5,625,000 | red corpuscles | Plethora        |
| 4 "       | 5,125,000 | "              | Aver. in man.   |
| 9 "       | 4,500,000 | "              | " " woman.      |
| 14 "      | 3,875,000 | "              | Slight anæmia.  |
| 20 "      | 3,125,000 | "              | Anæmia.         |
| 26 "      | 2,375,000 | "              | Intense anæmia. |

—*Berliner klin. Wochenschrift*, April 8th.

FIFTY-TWO SUCCESSFUL CASES OF LITHOTOMY.—Dr. Alan P. Smith, of Maryland, reports that he has performed lithotomy fifty-two times, and in each instance without a fatal issue. Of these, sixteen were below five years of age, thirteen between five and ten years, eleven between ten and twenty years, five between twenty and forty, and seven between forty and seventy-five; four were below two years, and one was only twenty-one months old. Of the whole number, there were only two negroes—the youngest and the oldest. In every case but six the operation was performed with the lithotome of his father, the late Nathan R. Smith. The cases were not selected; in fact, Dr. S. operated whenever the opportunity offered, with one exception, when the patient was brought moribund into the hospital. Certain rules have always been observed, which he thinks may have had some influence in determining the result. He never operates when the barometer is low, but waits until the weather is bright and clear. During the first twenty-four hours he sees the patient at suitable intervals, and introduces the gum catheter if the urine does not pass off freely through the cut. This he finds rarely necessary in young subjects, while adults usually have retention for that period of time. He makes a very free incision through the skin and subcutaneous connective tissue, so that there shall be no pocket in which blood, pus, or urine may collect. After the operation he applies carbolic oil to the wound freely. Most of his success he attributes, however, to the use of the instrument conceived by his father.—*Trans. of the Med. and Chir. Faculty of the State of Maryland*, 1878.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## A NATIONAL HEALTH BUREAU NEEDED.

THE practicability of creating a National Health Bureau, with full power and corresponding means, is becoming more and more demonstrable as the necessities of the hour present themselves.

If no other argument could be offered in its favor, the experiences during the present epidemic of yellow fever should be sufficient to secure the passage of any law having this end in view. Never before was the want of some systemized supervision of a wide district of country more clearly shown than in the spread of the fever to various cities and townships in the immediate vicinity of its starting-point, and along the routes of direct communication by rail and boat. Of course there is yet considerable room for conjecture as to how the disease may be propagated, but the constantly increasing testimony in favor of the transportation of the poison by things rather than persons, greatly simplifies the question of quarantine, and promises good results to any simple rules which may have a wide application and a systematic enforcement.

As we have before remarked on frequent occasions, the groundwork for a national bureau is already laid in the Marine Hospital Service, the good offices of which have been specially apparent in disseminating information concerning the progress of the epidemic and other matters connected therewith, which have been of the greatest benefit to the public. While such results demonstrate what may be done with limited powers and stinted means, there can be no calculation as to the benefits which may grow out of a really comprehensive law which may create a bureau for the nation, with proportionate scope, jurisdiction, and power to that of a health board of a town. In other words, to do for whole districts of country, river valleys, mountain slopes, railway and steamboat routes, what is done by local boards for streets and alleys, or for houses and apartments.

Dr. Woodworth, in his recent communication to the *Record*, concerning the availability of internal quarantine in preventing the spread of an epidemic, referred among other things to the inconsistency of shutting off communication with any particular town on the Mississippi, when the steamer *Porter* was allowed to carry her pestiferous cargo for miles up the river without hindrance, and almost without protest.

It is circumstances like these which serve as the strongest possible appeals for such alterations in the laws, for such creation of new powers as shall be competent to arrest travel along any of the great highways of the country when the public safety demands it. Our seaports are quarantined in such a manner as to demonstrate beyond the possibility of doubt the utility of the measure, and yet hundreds of miles of river are opened to the undisputed dissemination through the very heart of the country of the most dreadful of all plagues. The same may be said in regard to our railroads, single lines of which own routes through several States, and stretch over an area of thousands of miles.

It is quite evident that no State board of health, or any collection of them, can or will so concert their actions upon a sanitary question as to establish any necessary quarantine along these routes. The general government, however, through a properly constituted bureau, could accomplish this with certainty, could properly harmonize State interests, and would, besides, command respect for its orders, which would be proportionate with the power to execute them. Had such a board existed at the outbreak of the epidemic in New Orleans, it is impossible to calculate how much money would have been saved, and how many precious lives would have escaped the sacrifice.

Whatever may be said against the impracticability of internal quarantine, there is no argument against systematizing such general means of protection for towns along the great arteries of travel, and in different States, as shall express the advanced views held by leading sanitary authorities. The experiences at this port demonstrate how this can be done consistently: how the interests of all can be recognized, and still all be benefited; how disease can be effectually quarantined and yet business go on as usual; how by a proper and intelligent conservatism the people are educated to endorse sanitary regulations and jealously to guard against any infringement of the necessary authority of the health officials. From this point of view, and under proper centralizing influences, it can easily be proven that all the internal quarantine that is necessary in times of great peril can be made effective and that the people themselves may offer, in their own interests, the requisite assistance.

But not only during pestilence, but at other times, will there be the greatest use for such a bureau. Our great rivers are becoming polluted, our great railroads are interfering with the drainage of the towns



through which they pass, are altering the natural watercourses of different sections of country, are shutting off the drainage of swamp-lands and the like, and there is at present no power to arrest the spread of the evils or mitigate their results.

On general principles, then, there can be no possible argument against the formation of a bureau such as has been suggested, except, perhaps, that it may be used as a mere political machine and managed by incompetent and irresponsible individuals. But of the possible dangers in this connection we shall have something to say at a future time.

#### THE YELLOW-FEVER COMMISSION.

THE vote of the Medical Society of the County of New York, approving a resolution for the appointment of a national commission of medical men to report upon the causes and prevention of yellow fever, was eminently proper, and what was very naturally anticipated. The necessity of the appointment of such a committee need not be urged upon the profession, and the community at large do not need any arguments in favor of the great good which will thereby be accomplished. The only thing necessary to bring about the desired result is the proper presentation of the subject before the people. It is quite obvious that the medical profession has no small share in this work; in fact, upon its individual and collective exertions the main issues must depend. The medical societies over the country should rise to the dignity of the occasion—should throw their influences in the right direction, and, following the example of the Society of this county, deliberately vote in favor of the scheme.

The necessity of making the commission a national one, and, of course, under the direct patronage of the government, will be apparent to all who consider the necessity of ample power and ample means as primary factors in the investigation. The government owes such a service to the people, not only from a sanitary, but a commercial point of view; and when the matter is fairly presented to Congress, as it will be, the appropriation should be liberal, and should be made without question.

As a move in the right direction, but as purely preliminary to the one under contemplation, we may refer to the creation of a commission by the Supervising Surgeon-General of the Marine Hospital Service. Although under private auspices, the committee has enough of official character to guarantee good and faithful work during the progress of the epidemic. The members are to begin their labors at once, visit the different infected localities, and "glean all important facts possible to be obtained which have reference to measures of prevention of future epidemics." For the present, this is the best that can be done before Congress meets, but it cannot possibly accomplish what we must expect from a Commission clothed with accessory power by the government, and carrying on

investigations directly under its orders. While, however, we wish success to these preliminary labors, we must keep constantly in mind the end at which we must aim, in order that Congress, at its coming session, may be prepared to vote intelligently upon this vital question.

## Reports of Societies.

### AMERICAN GYNECOLOGICAL SOCIETY.

#### THIRD ANNUAL MEETING.

*Held in Philadelphia, September 25, 26, and 27, 1878.*

WEDNESDAY, SEPTEMBER 25—FIRST DAY—MORNING SESSION.

THE Society met at the hall of the College of Physicians, and was called to order at 10 A.M. by the First Vice-President, Dr. Wm. Goodell, of Philadelphia.

DR. ALBERT H. SMITH, of Philadelphia, in behalf of the medical profession of that city, welcomed the guests and the Fellows of the Society.

The following gentlemen were received as members by invitation: Drs. Griffith, A. F. Erieh, and Benj. Whiteley, of Baltimore; Bartlett, of Milwaukee; A. Brandis, of New York; Wm. Corson and H. Corson, of Norristown; W. C. B. Fifield, of Boston; S. D. Gross, D. Hayes Agnew, S. Weir Mitchell, Alfred Stille, Alfred Fricke, Nathan Hatfield, Sr., John Packard, J. Forsyth Meigs, R. A. Cleeman, Harlow, W. H. H. Githens, W. F. Jenks, G. B. Wood, W. S. W. Ruschenberger, T. S. Kirkbride, and H. H. Smith, of Philadelphia.

The first paper was read by DR. J. C. REEVE, of Dayton, O., and entitled

#### A CASE OF RUPTURE OF THE PERINEUM WITHOUT IMPLICATION OF THE VULVA.

The case was one in which the child had been delivered by the rectum, and the vulva was left intact.

DR. REEVE reported it, 1st, on account of its rarity, he having found only two such cases upon record; and 2d, the great rarity of this common variety of central rupture of the perineum in multiparæ. He had not been able to find a single fair case of the accident occurring in the multiparous woman. The case was also interesting in a medico-legal point of view.

The paper gave rise to discussion concerning the proper treatment of lacerated perineum, both prophylactic and after it had occurred.

DR. H. F. CAMPBELL, of Augusta, Ga., believed the proper method of treating laceration of the perineum was to close it by an operation as soon as possible after the occurrence of the accident.

DR. JAS. P. WHITE, of Buffalo, resorted to triangular incisions in cases of threatened laceration, and believed that the knife should be resorted to in such cases much more frequently than it was.

#### ON THE SURGICAL TREATMENT OF DYSMENORRHOEA.

DR. J. MARION SIMS sent a paper upon the above subject, which was read in abstract by the Secretary. It consisted essentially in a minute description of the two surgical operations, known as Simpson's and Sims'. These operations, it was claimed, were entirely different from each other; Simpson's was a *bilateral*

incision made for the cure of stenosis of the cervix uteri, while Sims' operation was the *antero-posterior* incision. Dr. Sims regarded the two operations as entirely different from each other, and such as were applicable to entirely different classes of cases. *Simpson's* was the operation suitable only for cases of stenosis of the intervaginal portion of a symmetrically developed cervix, while *Sims'* operation was suitable for cases of unequally developed intervaginal portion of the cervix, where the posterior segment was considerably longer than the anterior, and associated with ante-flexion. The paper was profusely illustrated, and contained an extended description of instruments and the history of the two operations.

The object of the paper seemed to be to establish the priority of Simpson in suggesting and performing one operation for the cure of dysmenorrhœa and sterility; to establish the priority of Sims in performing another and different operation for the cure of stenosis and sterility; to discriminate and point out the exact conditions under which one or other operation should be selected, and to give a minute description of the exact steps necessary in performing the operation, and the subsequent care necessary to secure its success.

The paper being before the Society for discussion,

DR. FORDYCE BARKER remarked that, although thirty-three years had passed since Sir James Y. Simpson suggested the bilateral incision of the cervix uteri for the cure of dysmenorrhœa and sterility, and twenty had passed since Dr. Sims suggested and performed the antero-posterior incision of the cervix uteri for the cure of certain forms of stenosis, yet it must be confessed that even at this day we had not arrived at those settled relations of practice which had been obtained in other departments of surgery. There was yet a great divergence of opinion among eminent gynecologists with reference to the utility of the operation, as to whether any surgical operation was necessary, and as to what surgical procedure was best adapted to safely remove the different conditions found in the cervix uteri and their attendant consequences. In discussing the question, Dr. Barker believed it was pertinent to inquire, how did it happen that one man found it necessary within twenty years to incise the cervix uteri in nearly 1,000 cases, another in 380 cases, and another had performed the operation nearly 377 times within a very few years; while others, who fully believed in the necessity of the operation in cases of stenosis, and who had had equally as large a sphere for gynecological observation in both hospital and private practice, had never found it necessary to perform the operation oftener than in one-fifth of the smallest number which had been given? Was it possible that a large class of practitioners had overlooked a great number of cases in which indications for the operation were present? Was the diagnosis of stenosis of the cervix uteri so obscure and difficult? To accept such an explanation was to impute ignorance and incompetency to a large number of eminent gynecologists, both in this country and in Europe.

The answer to these questions was to be found in the differences of opinion with reference to the necessity and the utility of the operation. There were many who formerly had resorted to the operation, but had gradually reached the conclusion that it was required much more rarely than formerly they had supposed it to be necessary. Indeed, the practical question was easily reached, was stenosis of the cervix, whether congenital or acquired—was the physical configuration of the cervix, as described by the author

of the paper, necessarily and always the cause of those symptoms—such as dysmenorrhœa and sterility, or any other symptom—which justified an operation of some severity, and one which was always attended with some dangers? It was but justice to say, however, that, in all the cases of death reported, the cause had been ascribed to accidents or errors which greater care and a larger experience might possibly prevent. The object of the operation was to make the canal of the cervix uteri sufficiently large to allow menstrual fluid to pass freely, and also to prevent the free entrance of the fecundating element. Now the question arose, was it certain that any of the various conditions of the cervix uteri described in the paper justified and rendered necessary the performance of the operation, and secured results which exempted the operator from the condemnation of his own conscience in having performed an unnecessary operation? How was it to be explained that some were becoming enthusiastic advocates who had not performed the operation very frequently, while others, who had performed it frequently, and with equal capacity for honesty and for observation, were becoming convinced that it was less and less necessary? Could it be possible the explanation was to be found in the fact that those who had become eminent as brilliant operators had been placed in a false position, which did not allow them to judge clearly with reference to the operations which they had been performing?

Dr. Barker continued his remarks at some length.

DR. ELWOOD WILSON, of Philadelphia, remarked that he was not an advocate of either Simpson's or Sims' operation, and yet he did not deny the possibility of the existence of cases in which it might be necessary to perform them. He was inclined to believe, however, that they had been performed much more frequently than was justifiable. Treatment by forcible dilatation was what he favored, and was a method which, in his experience, had not been followed by unfavorable results, and at the same time he had not been obliged to confine his patients to the bed for more than twenty-four hours after the performance of the dilatation. So far as he had been able to trace his cases, permanent benefit had followed this plan of treatment.

DR. NOEGGERATH, of New York, presented in brief the views held by the late Dr. Peaslee with reference to the two operations which had been described in the paper. He believed that all could be accomplished by Dr. Peaslee's operation that had been claimed for Dr. Sims' operation. One thing, however, was to be taken into consideration, and that was, unless full and true reports could be obtained of the condition of the patients at the end of one or two years, the discussion of the subject might be continued indefinitely without arriving at reliable conclusions regarding the actual or the relative merits of either incision or dilatation. For, although cases were effectually cured for two or three months, they were, at the end of eight or ten months, in most instances, in the same condition as before the operation was performed, whether it was incision or dilatation. Dr. Noeggerath thought the tendency was to supplant the surgical operation by other methods of treatment which were less dangerous and equally successful.

DR. WILSON, of Philadelphia, said that many of his patients had remained cured up to twelve and fifteen months, and in one instance he had seen the patient pass through the process of parturition subsequent to the forcible dilatation.

DR. H. P. C. WILSON, of Baltimore, thought there were many cases of stenosis of the internal os asso-



ciated with antelexion in which no other measure was adequate to rectify the condition except division of the cervix. He favored the cutting operation, and thought it should not receive the condemnation which by inference had been given it by all the speakers who had preceded him. Although he himself had operated upon many patients upon whom, in the light of his experience, he would at the present time refuse to operate, nevertheless he favored the cutting operation, and thought it should not be entirely discarded. He believed there were certain cases—for example, those in which the uterus was bent upon itself in a marked degree—in which nothing short of the cutting operation could give permanent relief. The class of cases to be especially excluded from the operation was those in which there were evident remains of cellulitis and peritonitis, for in those there was always danger in resorting to the surgical operation.

Dr. LYMAN, of Boston, remarked that he had not had any fatal results follow the cutting operation, and yet he had not had any great success in curing his patients. Ordinarily he had found his patients in the same condition six months after as before the operation, and besides, he had not had as good results as from forcible dilatation.

Dr. EMMET, of New York, directed the attention of the Society to one point, namely, that when the flexure was above the vaginal junction it indicated the existence of trouble elsewhere, as, for example, thickening of the broad ligaments in consequence of former attacks of cellulitis or peritonitis. When the operation had been performed in such cases he had never known the woman to be permanently relieved. Such thickening gave rise to obstruction of the circulation, and was the cause of a chordee of the uterus, which after a time became permanent. In the beginning the fault did not rest in the uterus, nor did the operation relieve the condition of the uterus in such cases.

#### A CASE OF EXTRA-UTERINE PREGNANCY WITH DISCHARGE OF THE FOETAL BONES THROUGH THE BLADDER.

Dr. JAMES P. WHITE reported a case, and accompanied the report with some remarks. It was regarded as interesting with reference to the following points:

1. The location of the foetal tumor was one rarely assumed in cases of extra-uterine pregnancy, namely, in front of the uterus and top of the bladder.

2. The discharge of the foetal remains through the bladder was one of the most infrequent of the various methods by which they might be disposed of by spontaneous elimination.

Discussing the propriety of an operation, Dr. White believed it to be better, unless there were special indications, to leave this class of cases to nature rather than to resort to abdominal incision for the removal of the foetus.

Dr. JOHN T. ATLEE, of Lancaster, gave the history of a case of extra-uterine pregnancy, in which the abdominal operation had been performed successfully by his son, Dr. Walter F. Atlee. The management of the placenta was, by Dr. Atlee, regarded as an important point in these cases. He believed that if it was allowed to remain undisturbed the operation might become as popular as was that of ovariectomy at the present time.

Dr. STORER, of Boston, referred to a case of extra-uterine pregnancy which was left to nature, and in which the bones of the foetus passed away through the rectum of the mother. The case was reported as

one illustrating the non-necessity of surgical interference.

Dr. WHITE said that he did not wish to be understood as saying that no operative interference should be instituted, but that operative interference should be instituted only when there were some special indications. With reference to leaving the placenta undisturbed, he thought that point had been settled in favor of non-interference.

Dr. CAMPBELL, of Georgia, alluded to a case which in his opinion favored leaving this class of cases to nature's care.

The Nominating and Auditing Committees were announced, and the Society adjourned to meet at 3 P.M.

#### FIRST DAY—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by Dr. Goodell.

The following gentlemen were elected members by invitation:

Drs. A. T. P. Garnet, of Washington; Isaac Price, of Westchester, Pa.; W. H. Baker, of Boston; Isaac Ray, of Philadelphia, and — Sutton, of Pittsfield, Mass.

The first paper was read by

Dr. J. F. JOHNSON, of Washington, and entitled:

#### A CASE OF FOOT-AND-HEAD PRESENTATION—FRACTURE OF THE SPINE IN UTERO.

The case was one in which a foot presented in advance and with the vertex, but on account of the delay, the severity of the labor-pains, and the restlessness of the mother, the doctor found it impossible to push the head up and produce a footling presentation. There was evident danger of rupture of the uterus, and delivery was effected by the forceps. The father objected to craniotomy. The child was literally squeezed to death by the uterine forces, and after delivery was completed, it was discovered that there was fracture of the spine at the lower third of the dorsal region. The case was reported with special reference to treatment, and Dr. Johnson thought the Society could do great good by giving authority to the statement that the forceps operation should be regarded as a means of preventing danger to the mother from puerperal diseases, as well as a means of rescuing her when in danger in childbirth.

The paper was discussed by Drs. Engelman, of St. Louis; Noeggerath, of New York; Penrose, of Philadelphia, and Campbell, of Georgia.

Dr. EMMET, of New York, read a paper on

#### THE NECESSITY FOR EARLY DELIVERY, AS DEMONSTRATED BY THE ANALYSIS OF ONE HUNDRED AND SIXTY-ONE CASES OF VESICO-VAGINAL FISTULA.

The object of Dr. Emmet's paper was to prove that instrumental delivery had rarely, if ever, any agency in the production of vesico-vaginal fistula. The direct cause was always in the delay in delivery after impaction of the foetus had taken place, while the indirect one was, in a large proportion of cases, neglect to empty the bladder.

Dr. Emmet believed that the extent of the injury did not necessarily bear any relation to the length of the labor, but generally depended upon the mode of delivery. That assertion rested upon the supposition that we could determine the average amount of damage by the length of time necessary to repair it afterwards. To illustrate this position an analysis of one hundred

and sixty-one cases of vesico-vaginal fistula was made, and it was shown that the duration of treatment in those instances in which the accident had occurred in connection with natural delivery was considerably more than in connection with instrumental delivery.

Dr. Emmet did not hesitate to make the statement that he had never seen a case of vesico-vaginal fistula which could be shown to have been made by instrumental delivery. The paper, therefore, had an important medico-legal value. The practical point to which special reference was made was that the catheter should always be introduced prior to the forceps operation, regardless of the statements made by either nurse or patient with reference to the condition of the bladder.

The paper being open for discussion,

Dr. A. H. SMITH, of Philadelphia, remarked that the report given by Dr. Emmet was very satisfactory to those who were in the habit of teaching that forceps should be used early in certain cases of labor. The old teaching that the woman should be allowed to remain in labor twenty-four hours before instruments were to be used had to a very great extent been supplanted, and he had no doubt the number of cases of vesico-vaginal fistula had been reduced in consequence. The danger to the soft parts of the mother was not when the head or any other portion of the child was driven intermittently against the tissues, but when they became impacted in the pelvis and gave rise to continuous pressure.

With reference to the use of the catheter before introducing the forceps, he thought it better to apply the instrument and draw the head down a little rather than to resort to forcible introduction of the catheter before the forceps were applied.

Dr. STORER, of Boston, remarked that among the several thousand cases of midwifery which he had attended, there had occurred two cases of vesico-vaginal fistula. Doubtless the forceps was an instrument which possessed great value, but the idea that it was one that was to be constantly used should be carefully considered. While he coincided with Dr. Emmet in most to which he had directed attention, yet he believed we should be careful to point out the fact that injury was produced by making too free use of the obstetric forceps.

Dr. FORDYCE BARKER remarked, with reference to the influence of an over-distended bladder in retarding or protracting labor, that it was doubtless the observation of every experienced obstetrician that, by the introduction of the catheter, what had been regarded as a proper case for instrumental delivering had been converted into an active labor that terminated in a speedy delivery. Although obstetric writings taught the importance of watching the bladder during the process of parturition, yet there was nothing which was more commonly neglected.

With reference to the forcible introduction of the catheter alluded to by Dr. Smith, it had been his practice to introduce the forceps, bring the head down so as to relieve the urethra from pressure, and then use the catheter before completing the delivery.

Dr. Barker alluded to another cause of prolonged first stage of labor, and that was exhausted nerve-power. Under such circumstances he regarded it as necessary either to give the patient rest by the use of opium, or overcome uterine inertia by the use of full doses of quinine administered at short intervals.

He further believed that the dangers from the use of the obstetric forceps had been very much exaggerated. The older he grew and the larger his sphere

of observation became, the more frequently he found it necessary to resort to instrumental delivery, and could see his error in not having used the forceps earlier and oftener than he had done in years past.

Dr. PENROSE, of Philadelphia, thought one of the most important points in Dr. Emmet's paper was his statement with reference to the exact time when the forceps should be applied, namely, immediately when the head ceased to recede after the occurrence of a pain. Delay at that time was dangerous, and the woman was in great peril, unless speedy delivery was effected.

Dr. WILSON, of Baltimore, remarked, with reference to the use of the forceps, that he had never regretted using the instruments, but had very often regretted that he had not resorted to them earlier. He would go a little farther than had the gentleman who preceded him, and say that the forceps should be used as soon as the head ceased to advance.

He had frequently used the forceps when he felt absolutely certain that the woman would be safely delivered by nature. He also believed that when the woman was under the influence of an anæsthetic and the forceps were properly used, the instruments could prevent laceration of the perineum.

Dr. BARKER thought that failure on the part of the head to recede in the interval of uterine pains was an uncertain rule to guide us in the use of the forceps; for there were many labors in which it was found that in the interval the head remained exactly as it was, and yet the labor went on normally. He should say that, as soon as it was evident that the head had ceased to advance, providing the uterine contractions were sufficiently powerful, the forceps should be resorted to.

Dr. PENROSE thought that when the head ceased to recede it almost invariably ceased to advance, and therefore, practically, Dr. Barker and Dr. Emmet were of the same opinion.

Dr. JOHN T. ATLEE, of Lancaster, favored the frequent and early use of the forceps. He regarded the use of ergot in the first stage of labor as nearly as constant a cause of vesico-vaginal fistula as any which has been recognized. He preferred to use the forceps in cases of delayed labor.

Dr. STORER thought that the forceps oftentimes were applied under improper circumstances, and therefore the Society should be cautious in the expression of views which were especially to influence the younger members of the profession.

With reference to laceration of the perineum, Dr. STORER remarked that, in nearly every case which had fallen under his observation, the injury had been produced by the use of the forceps.

Dr. J. P. WHITE, of Buffalo, regarded the tables presented by Dr. Emmet as a vindication of his own practice during the last thirty years. His rule had been that, when the head ceased to advance with each repeated pain, the forceps should be employed. By so doing, the danger to the perineum could be lessened, and also the danger to the woman from exhaustion.

Dr. A. H. SMITH, to correct any misapprehension which might arise from his remarks, said that merely to hasten the first stage of labor should not be an indication for the use of the forceps. He regarded it as criminal to resort to the use of ergot in the first stage of labor.

The discussion was continued by Drs. Emmet, Barker, Reeve, and Goodell.

The Society then adjourned, to meet on Thursday, September 26th, at 10 A.M.



THURSDAY, SEPT. 26TH—SECOND DAY—MORNING SESSION.

The Society was called to order at 10 A.M. by Dr. Goodell.

The following gentlemen were elected members by invitation: Drs. E. L. Duer and W. B. Atkinson, of Philadelphia, and Nathan Bozeman, of New York.

#### THE HAND AS A CURETTE IN POST-PARTUM HEMORRHAGE.

DR. H. P. C. WILSON, of Baltimore, read a paper upon the above subject. It embraced a detailed description of a case of severe post-partum hemorrhage, in which, after all means at hand had failed, the bleeding was arrested by introducing the hand into the uterus and raking the placental surface with the finger-nails. The labor was uncomplicated. The hemorrhage came on without apparent cause. The hand was carried into the uterus, the clots turned out, and the organ excited to contraction until the hand was expelled. Ice was also carried into the uterus, and the operation of emptying the organ of clotted blood was repeated four times. Ergot was given by the mouth, by the rectum, and subcutaneously. Still the uterus relaxed, and the case became very alarming. The use of the hand as a curette suggested itself to Dr. Wilson in the emergency, and it was at once introduced and the placental surface raked with the finger-nails. There was no bleeding after the first raking, although the uterus relaxed and the hand was carried into the cavity, and the raking process was repeated. For about forty-five minutes the uterus remained enlarged and its mouth patulous after the second raking. Then severe after-pains set in, produced firm contraction, and there was no further trouble in the case. The patient made a good recovery. Dr. Wilson's experience in the case related was so satisfactory, that in the future treatment of post-partum hemorrhage, he should not hesitate to use the hand to the placental surface as a curette, provided prompt contraction of the uterus could not be produced by the ordinary means at hand.

#### THE TREATMENT OF POST-PARTUM HEMORRHAGE

was the title of a paper then read by Dr. R. A. F. PENROSE, of Philadelphia.

After making some remarks regarding the appalling character of post-partum hemorrhage, the necessity for instant and efficient treatment, Dr. Penrose passed to the consideration of the causes of this most alarming complication. The great cause was set down as uterine inertia, yet there were many other causes, such as partial attachment of the placenta, diseases of the uterus, etc., which must be appreciated in order to apply proper remedies. The most painful predisposing cause was a peculiar idiosyncrasy of the woman, giving rise to a peculiar flaccidity of the uterus. The design of the paper was to study the relative value of certain remedies to be employed in the curative treatment of this form of hemorrhage.

The relative value of friction, application of cold and heat, electricity, exciting reflex contraction by acting upon distant organs, etc., etc., was duly appreciated by all, and they were passed without extended comment. With reference to treatment of this form of hemorrhage, when it depended upon uterine inertia, what was desirable was a remedy which could be easily obtained under all circumstances, one which admitted of application in the simplest manner, and at the same time a remedy, the use of which would not be followed by injurious conse-

quences. The actual cautery was an effectual remedy, and so was the injection of persalts of iron into the cavity of the uterus, but unfortunately they were exceedingly liable to produce disastrous results, or they might not be at hand. The same was true of other remedies which had been employed. The remedy of which Dr. Penrose made special mention for the arrest of post-partum hemorrhage was *common vinegar*. Since 1854 he had used it with invariable success. The advantages claimed for it were:

1. That it could be readily obtained;
2. That it could be easily applied, and without special apparatus;
3. That it always cured the hemorrhage, or rather, it had not failed in his practice;
4. That it was sufficiently irritating to excite the most sluggish uterus to contraction, and yet not so irritating as to be subsequently injurious;
5. That it was an admirable antiseptic;
6. That it acted upon the lining membrane of the uterus as an astringent.

Dr. Penrose used this remedy in the following manner: saturate a rag with vinegar, carry it into the cavity of the uterus, and squeeze it. In the vast majority of cases the hemorrhage ceased as by magic when the vinegar passed over the surface of the uterus and the vagina. He believed that the salts of iron should seldom or never be used, but in a case, which was supposable, in which the vinegar failed he would resort to that remedy.

The above papers being before the Society for discussion,

DR. J. P. WHITE, of Buffalo, remarked doubtless all would agree with Dr. Penrose that uterine inertia was the most common cause of post-partum hemorrhage. The remedy which had been proposed by Dr. Wilson he regarded as valuable, but he was not able to understand the analogy between it and the action of the curette in the treatment of certain troubles affecting the internal surface of the uterus. Dr. Penrose had introduced a new remedy, but Dr. White was not prepared to accept it as one to be invariably successful.

DR. T. G. THOMAS, of New York, remarked that the question always arose whether the uterine inertia was primary or secondary. He believed that in a very large proportion of cases post-partum hemorrhage was due to mismanagement of the uterus during the time the child was being expelled and immediately afterwards. He regarded the third stage of labor as tonic contraction of the uterus after the expulsion of the placenta, and to secure such contraction was the first duty of the obstetrician. With reference to the remedy introduced by Dr. Penrose, doubtless it was a valuable one, yet the idea that it possessed any specific action, or any remedy employed for that purpose, should be set aside, for it was altogether probable that they acted simply as local irritants to excite uterine contraction.

DR. JOHN T. ATLEE, of Lancaster, commended the treatment spoken of by Dr. Wilson, and believed the hand and arm were the most ready and efficient remedy at our command for the arrest of post-partum hemorrhage.

DR. A. H. SMITH thought that post-partum hemorrhage was due to one of two causes, either distention or laceration. If the uterus was emptied it would contract, and the hemorrhage would cease. The main point in the treatment, therefore, was not to introduce anything into the cavity of the uterus which would prevent complete contraction. The means which he had employed with greatest success had been in-

jection of hot water; the water should be injected at the same time the clots were turned out, and at a temperature of 110° F.

DR. CAMPBELL, of Augusta, Ga., thought the idea of irritating the placental surface was valuable and worthy of consideration. He spoke highly of the use of injections of tr. of iodine. He disapproved of the use of the persalts of iron.

DR. ENGELMANN, of St. Louis, approved of the use of the iron-salts, and had come to rely upon them in extreme cases.

DR. TRASK, of Astoria, L. I., stated that an analysis of the cases in which iron had been used showed that the benefit which followed was due, not to its styptic, but to its irritant action.

Injections of the tr. of iodine had been his favorite method of treatment.

DR. BOZEMAN, of New York, believed that if compression was made over the fundus of the uterus at the same time the hand passed into its cavity to remove the clots, the hemorrhage would almost invariably be arrested.

DR. J. R. CHADWICK, of Boston, thought that a very good remedy in these cases was ether used hypodermically. He had employed it in three cases with the effect of producing prompt tonic contraction.

DR. BYRKE, of New York, mentioned the hemorrhagic diathesis as one of the predisposing causes, and related a case in illustration. Because of the existence of this diathesis the woman nearly lost her life, notwithstanding the most vigorous prophylactic treatment. With reference to treatment of this form of hemorrhage he would, if possible, avoid introducing the hand into the cavity of the uterus, because of the liability to do injury by such procedure.

DR. WILSON thought injury to the uterus was not likely to follow introduction of the hand when all the parts were relaxed. He had never used the persalts of iron and did not approve of their use. His hand was the therapeutical agent upon which he relied most, and he had never met with any injuries from its use that confirmed Dr. Barker's fears.

DR. PENROSE agreed with Dr. Barker that the hand should not be needlessly introduced into the uterus. He still regarded the remedy which he had proposed as one possessing special value because of its accessibility and ease of application.

#### THE PRESIDENT'S ADDRESS.

DR. W. GOODELL, of Philadelphia, delivered an able and interesting address, in which he first paid a merited tribute to Dr. E. R. Peaslee and Dr. W. L. Atlee, Fellows who had died within the past year. Then followed a brief review of last year's work as shown by the volume of Transactions. A compliment was given to Dr. S. Billings, of the U. S. A., for the bibliography which accompanied the volume. In looking over the contributions, it was noticeable that nothing could be found on diseases of childhood, and also there were social problems of the day which ought to be boldly confronted, such as preventive measures, criminal abortion, sexual excesses, dress, etc. One subject demanded especial attention, and that was the care of children among the poorer classes.

The doctor then passed to the consideration of the subject of

#### NERVE-TIRE AND WOMB ILLS; OR, THE RELATION OF NEURASTHENIA TO THE DISEASES OF WOMEN.

In his opinion there was a tendency in the young, yet brilliant school of gynecology to make too much of the womb and its annexes as the cause of so-called

female disorders. Many disorders of the reproductive apparatus did not constitute the essential disease, but were merely the local expressions of general neuroses. The girl at school, wearied beyond measure by the slightest exertion, either mental or physical, finally became hysterical, and in her all forms of disease were assimilated. No good came from local treatment, nor did such patients respond much better to ordinary therapeutic measures. Such cases were an opprobrium to the profession, and to remove that opprobrium was the object of the address. It could be done by a plan of treatment first devised by Dr. S. Weir Mitchell in his work on *Pain and Blood, and How to Make Them*. Of that plan, rest, massage, seclusion, electricity, and feeding were the essential features. Dr. Goodell then related the history of some remarkable cases, in which the symptoms were such that ninety-nine out of one hundred physicians would ascribe them to uterine disease alone, and yet they recovered with little or no local treatment. The essence of the disease in such cases was not in the sexual organs, but in the nervous centres. Those emotional creatures gave a history of exhaustion and wakefulness, of great nervousness, and of constant backache and ovalgia. The things to be secured in the treatment were nutrition, sleep, rest of body and mind, and freedom from pain.

A vote of thanks was extended to the President for his able address, and the Society adjourned to meet at 3 P.M.

(To be continued.)

## Correspondence.

### HOMŒOPATHY AND EXCLUSIVISM.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your last editorial—September 28th—you dwell on "coincidences and similarities of expression" as if such accidents were surprising! Why, sir, we have no doubt that if the "majority of the County Medical Society" should speak, you would find even a more remarkable display of "coincidence and of similarity in the language and in the ideas expressed" to those of "Medical Ethics" and "One of the Majority."

You now make it clear that you are not in favor of any recognition whatsoever of the "so-called liberal homœopaths" until they have obtained a status as "regulars," which, you wisely add, should be based on "a good education, a good moral character, and a renunciation of exclusivism," and express surprise at its having escaped "clear-headed Medical Ethics." Possibly he held views similar to ours, and took it for granted that you, as well as others, would understand it by implication.

There is one point you have raised in your editorials, and in your last one reiterate with increased force. It is that "the Society stultified itself by its vote"—in plain English, made a fool of itself by rejecting the nonsensical report of the Comitæ. As if the whole profession did not know that any one who recognized the entire domain of science as the sole basis of practice could not possibly be considered an "exclusive." Why, sir, the report of the Comitæ was impertinent to the sense of the Society; for it was, in fact, to all honest men, meaningless in its application—practically abortive. The question asked plainly "if the ban of exclusiveness, as regards consultations with the so-called liberal homœopaths, was removed?" It called



for a direct answer, "either yes or no," and not a circumlocutory platitude. In creating "the loop-hole to which allusion has so often been made," the Comitia did, in fact, *stultify the purpose of its existence*, which is not only to guard the letter of the Code, but its *very spirit*.

"We agree with you as to the grandiloquent expression of "Senex," in reference to freedom of thought and liberty of speech, being the merest cant, and are surprised that "clear-headed Medical Ethics" should have taken any notice of it, for "apparent sincerity degenerates into transparent hypocrisy."

Yours truly,

ONE OF THE MAJORITY.

[And still our general opinions, as already expressed, are unchanged.—Ed.]

## CHLORAMYL, A NEW ANÆSTHETIC AND AN IMPROVED INHALER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Having had considerable experience in the administration of the various anæsthetics in use at the present day, viz., chloroform, ether, etc., and not feeling satisfied with the safety, or rather *unsafety* of chloroform, or with the many faults of sulphuric ether, which so nearly counterbalance its comparative safety as to preclude its use in favor of chloroform in many cases, I have therefore experimented with various compounds in the hope of discovering a new and better anæsthetic.

Early in the month of April, 1877, while treating an asthmatic patient with the nitrite of amyl, I became impressed with the idea of augmenting the heart's action with this drug, and thereby *preventing* the tendency to syncope and asphyxia, from paralysis of the heart, in cases of chloroform narcosis.

I then began a series of experiments upon animals, first administering chloroform and then the nitrite of amyl. Then I began to mix them for use, aiming to get such a proportion of the amyl as would just counteract the paralytic effect of the chloroform. I found that while pure chloroform (Squibbs') would mix readily with the nitrite of amyl, producing a fine clear solution, the chloroform of other manufacturers was unsatisfactory, leaving a milky solution of unpleasant odor. Continuing my experiments, I came to the conclusion that a quarter of an ounce of the nitrite of amyl to the pound of Squibbs' chloroform was about the proper strength, and that the combination was far safer for general anæsthetic purposes than chloroform uncombined; indeed, in my hands, and in those of others, so far as tried, it seems to be fully as safe as sulphuric ether, and far more pleasant in its administration, possessing all of the advantages of pure chloroform, but without its dangers.

Upon becoming satisfied of the value of my discovery, I named it chloramyl. I first administered chloramyl to persons in June, 1877, as follows: June 6th, I administered the compound to Charles Detrick, a young, healthy man, for the purpose of dressing a badly crushed thumb, both the patient and bystanders being wonderfully pleased with its operation. Next, June 16th, I gave it for amputation of a finger: then, June 18th, for extraction of a tooth; since which time I have employed it (chloramyl) in a great variety of cases in both surgical and obstetrical practice. I find that patients usually take it better than chloroform alone, and so far there has not been the first indication of danger from its use. In exhibiting chloramyl, the patient's face becomes flushed

much sooner than with chloroform; but press the drug right along and the countenance does not become pale. Both the heart's action and respiration are kept up thoroughly throughout the anæsthesia. I have given this prescription to several physicians, and induced them to try the chloramyl with the most satisfactory results. I have also (last month) communicated the same to Professors Maclean, Dunster, and Frothingham, of Michigan University; and have reported my discovery to the Cayuga County N. Y. Medical Society.

Having noticed lately several communications in the columns of the Record, from Dr. F. A. Burrall and others, on the use of amyl nitrite as an antidote to chloroform in cases of poisoning, I concluded to publish my discovery. As Dr. Burrall states in his article in the Record of July 20th, "With our present knowledge of the antidotal properties of amyl nitrite in relation to chloroform, it is but justice to our patients to have it at hand when chloroform is administered." I agree with him that we should have it at hand, but not in a separate bottle, to use *after the danger has become imminent*, but (as it produces no ill effects) *mixed with the chloroform*, in such a proportion as to prevent the approach of danger, by both syncope and asphyxia; for such I claim to be the effect of this combination, and as such I give chloramyl to the medical profession, asking that it may be given a full and fair trial, and trusting that it may become the humble instrument in other hands of saving human life. Not that I would detract from the honors due the inventor of chloroform, for it was a grand invention; but if we can relieve its administration from the embarrassment and danger which have heretofore attended its use, will it not indeed be a great boon to humanity?

The formula I use for chloramyl is

R. Squibbs' chloroform..... 1 lb.

Nitrite of amyl..... 2 drachms.

Mix.

But I would suggest that the amount of nitrite of amyl be diminished in long and tedious operations, and on farther trial it may prove best to vary the proportions, the point aimed at being to use just sufficient amyl nitrite, to counteract the paralytic effect of the chloroform.

GEORGE E. SANFORD, M.D.

FIVE CORNERS, Cayuga County, N. Y.

THE ROLL OF HONOR.—The following physicians have died while in attendance upon yellow fever patients since the last report:

*Memphis, Tenn.*—Sept. 25th, Dr. P. Burcham, volunteer from Columbus, O.; Dr. Langdon A. Cherviss, volunteer from Savannah, Ga. Sept. 29th, Dr. C. S. Roberts, volunteer from Sulphur, Ky.; Dr. P. Tuerke, volunteer from Cincinnati, O.; Paul H. Otey.

*Vicksburg, Miss.*—Sept. 26th, Dr. J. S. Roach.

*New Orleans, La.*—Sept. 25th, Dr. George W. Kibbee, volunteer from New York. Sept. 28th, Dr. Morley. Sept. 29th, Dr. J. Theus Taylor, volunteer from New York.

*Holly Springs, Miss.*—Sept. 25th, Dr. J. W. Fennell. Sept. 26th, Dr. Lewis, volunteer from Denison, Texas; T. D. Manning, volunteer from Austin, Texas.

*Hickman, Ky.*—Sept. 27th, Dr. J. W. Farris, volunteer from Missouri.

*Milan, Tenn.*—Sept. 22d, Dr. J. G. Boyd.

*Grand Junction, Tenn.*—Sept. 28th, Dr. Newton Adams Lindley, volunteer from New York.

Previously reported, 48. Total to date, 63.

## Medical Items and News.

**CONTAGIOUS DISEASES—WEEKLY STATEMENT.**—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 28, 1878.

| Week Ending     | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|-----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Sept. 21, 1878. | 0             | 29             | 25             | 3                          | 6        | 24          | 0          | 1             |
| Sept. 28, 1878. | 0             | 17             | 28             | 0                          | 1        | 18          | 0          | 0             |

OFFICE SURGEON GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., Sept 28, 1878.

**NATIONAL QUARANTINE REPORT.**—Abstract of sanitary reports received during past week under the National Quarantine Act:

*New Orleans.*—During week ending yesterday evening there were 926 cases of yellow fever and 332 deaths. For the last twenty-four hours there were 124 cases and 51 deaths. Total cases, 8,464; deaths, 2,700.

*South Pass, La.*—There had occurred to the 26th inst. 42 cases of yellow fever and 2 deaths.

*Morgan City, La.*—For the week ending yesterday evening there were 79 cases of yellow fever and 12 deaths. Total cases, 145; deaths, 30.

*Bitou Rouge, La.*—From Sept. 20th to 9 A.M. the 26th there were 221 cases of yellow fever and 7 deaths. Total cases, 893; deaths, 46.

*Papoumeine, La.*—During the week ending Sept. 15th there were 16 deaths from yellow fever. 139 cases were still under treatment. The first case occurred August 1st. Total cases to Sept. 15th, 305; deaths, 53.

*Pass Christian, Miss.*—12 cases of yellow fever and 2 deaths occurred during the week ending yesterday evening. Total cases, 33; deaths, 3.

*Biloxi, Miss.*—There were 5 cases of yellow fever and 1 death during the last week. Total cases, 25; deaths, 8.

*Mississippi City, Miss.*—8 cases of yellow fever and 1 death occurred last week.

*Ocean Springs, Miss.*—During the week ending yesterday evening 9 cases of yellow fever occurred and 5 deaths. Total cases, 60; deaths, 17.

*Bay St. Louis, Miss.*—There were 53 cases of yellow fever and 15 deaths during the week ending yesterday evening. Total cases, 78; deaths, 20.

*Water Valley, Miss.*—During the eight days ending Sept. 21st there were 18 cases of yellow fever and 5 deaths. Total cases to that date, 21; deaths, 7.

*Vicksburg.*—58 deaths from yellow fever during the week ending yesterday evening, 14 of which occurred in the last twenty-four hours. Total deaths to date, 779. Assistant-Surgeon Keyes reports: "Epidemic over, save a few sporadic cases."

*Greenville, Miss.*—Out of a remaining population of 450, 227 have died of yellow fever; 60 persons are now sick with the fever, mostly convalescent, and "material for new cases exhausted."

*Grenada.*—Since last report there have been 10 new cases of yellow fever and 3 deaths. Total deaths to yesterday evening, 274.

*Port Gibson, Miss.*—Total cases of yellow fever to last evening, 620. Total deaths, 110.

*Memphis.*—Deaths from yellow fever for the week ending Sept. 26th, 297. Total deaths, 2,428.

*Brownsville, Tenn.*—During the week ending yesterday evening, 67 cases of yellow fever and 22 deaths occurred. Total cases, 197; deaths, 66.

*St. Louis.*—During the past week, 4 deaths from yellow fever at Quarantine. None in the city. Only 2 cases now under treatment at Quarantine.

*Coiro, Ill.*—During the last week there were 2 cases of yellow fever, one of them a refugee. Total cases, 14, and 6 deaths.

*Louisville, Ky.*—18 cases and 10 deaths from yellow fever occurred during the week ending Sept. 27th. 9 cases and 5 deaths were among the inhabitants living within two or three squares of the Louisville & Nashville depot, where some unclaimed baggage of refugees had been stored. The first case among the inhabitants occurred Sept. 23d. Total cases, 95; deaths, 36.

*Cincinnati.*—No new cases nor deaths from yellow fever within the last week.

*Gallipolis, Ohio.*—Since last report to Sept. 24th, 3 new cases of yellow fever and 5 deaths have occurred. Two of the new cases are not traceable to the steamer "Porter." Total number of cases, 31; total deaths, including the 6 on the "Porter," 17.

*Chattanooga, Tenn.*—A refugee was taken with yellow fever Aug. 21st. and another Sept. 6th. The first case among the inhabitants occurred Sept. 18th. Total cases to last evening, 41; deaths, 23.

*Mobile, Ala.*—From Sept. 20th to the evening of the 24th there were reported to the Board of Health as yellow fever 11 cases and 7 deaths.

*Key West, Fla.*—No new cases of yellow fever the past week.

One refugee died of yellow fever in Dayton, Ohio, Sept. 21st.

One case of yellow fever occurred in Philadelphia, and one in Richmond, during the same week; both were refugees from the South.

Yellow fever prevails in a number of small towns in Louisiana, Mississippi, Tennessee, and Kentucky, from which definite information of the number of cases and deaths has not been received. The fever is reported as spreading to the plantations.

*Havana, Cuba.*—For the week ending Sept. 21st there were 31 deaths from yellow fever, and 9 from small-pox.

*Rio de Janeiro.*—From 14 to 22 deaths from small-pox occur daily. No other contagious disease prevails.

*Morocco, Africa.*—Advices from Fez and Mequinez to Aug. 24th are to the effect that the cholera is decreasing. Small-pox prevails in the ports of Magador and Saffi. In the latter port about 15 deaths occur daily from that disease.

*Calcutta.*—10 deaths from cholera, and 17 from small-pox, week ending July 27th.

*Bombay.*—32 deaths from cholera, week ended Aug. 6th.—JNO. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

**THE YELLOW-FEVER COMMISSION.**—The Commission to which reference is made in our editorial column has been appointed by the Supervising Surgeon-General of the Marine Hospital Service, Dr. John M. Woodworth, and consists of the following gentlemen: Prof. S. M. Bemis, M.D., of New Orleans; Jerome Cochran, M.D., of Mobile; and Prof. E. Lloyd Howard, M.D., of Baltimore. The major part of the expenses of the Commission are to be met by Mrs. Elizabeth Thompson, of this city.



## Original Lectures.

## HYDATIDS OF THE LUNG.

CLINICAL LECTURE DELIVERED IN UNIVERSITY MEDICAL COLLEGE.

By PROF. ALFRED L. LOOMIS, M.D.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—This case is one of unusual interest. The patient has been brought to us from Charity Hospital. Without indicating to you the character of the disease, I will carefully take his history, and with your assistance, if possible, reach a diagnosis. He states that he is a native of Ireland, a shoemaker by trade, is 43 years of age, and has no hereditary tendency to disease. At 19 years of age he had his first attack of inflammatory rheumatism. This lasted two months. All the large joints were involved. He has had several similar attacks at intervals of from one to four years, the length of the attacks varying from one to three months.

In 1875, after an attack of rheumatism, he had a carbuncle on his neck, which was followed by chills and fever. He now noticed for the first time some swelling of the feet and ankles, and palpitation of the heart on exertion.

In September, 1876, he suffered from unusual cardiac palpitation, accompanied by severe paroxysms of coughing, and for the first time in his life he "raised blood." The spitting of blood continued almost without intermission until Jan. 10, 1878; the blood was bright red, and varied in quantity from one to two tablespoonfuls. During this time, nearly every day, he raised some blood. On the 10th of January, 1878, he began to spit up much larger quantities of blood than ever before; from Jan. 10th to Jan. 18th he thinks he raised as much as eighteen pints of blood. On Jan. 18th, after a violent fit of coughing, he raised something which had the appearance of membrane—it was partly white and partly red; afterward he raised other pieces, some of which looked like little sacs. Each time he expectorated a piece he would spit up a large quantity of bright-red blood.

He lost little flesh previous to the month of January, 1878. During the time that the profuse hemorrhages continued he lost flesh very rapidly and became very weak. Three weeks after the first profuse hemorrhage (during the early part of February), he again coughed up membrane and had another profuse hemorrhage; for three days he had these hemorrhages. At this time when he coughed up the membrane, he says, for the first time he had a sensation as though something was being torn out of the inside of his chest. The membrane came up in quite large pieces, and after raising it he experienced a sensation of relief. Since this time he has raised no blood, nor has he expectorated any more membrane. He coughs a little and has a slight muco-purulent expectoration; has steadily gained in flesh and strength, and as you see now looks quite well. The palpitation of the heart, which has troubled him more or less for the past two or three years, is less than at any time within that period. His urine gives negative results. With this history, gentlemen, before we enter upon a physical examination of this patient, I will ask you for a diagnosis. There are two prominent symptoms presented to us, viz.: spitting of blood and cardiac palpitation.

What was the probable cause of the hemorrhage?

The suggestion has just been made to me that it was probably caused by disease of the heart which had been developed during some of his attacks of rheumatism.

It is quite possible that the earlier and smaller hemorrhages of which this patient speaks may have depended upon some mitral lesion, for such hemorrhages are usually small in quantity and sometimes continue for a long period, but some other explanation must be found for the profuse arterial hemorrhages which occurred during January and February. Besides, the blood which is spit up in connection with pulmonary hemorrhages depending upon heart lesion is usually of a dark color.

Again, the suggestion is made that the hemorrhages may have occurred as the result of the separation of a fibrinous exudation in the bronchial tubes from a fibrinous bronchitis. The expectoration of pieces of membrane in connection with the hemorrhages seems to favor such an explanation; but the hemorrhages which occur under such circumstances are usually small in quantity—I have never known them to exceed two or three tablespoonfuls; besides, the membranes expectorated are usually casts of the bronchial tubes. Only a microscopical examination of portions of the membrane expectorated will settle whether this is or is not the case.

Again, it is suggested that the hemorrhages may have been simple bronchial hemorrhages such as are met with in the early stage of pulmonary phthisis. It is a fact that such hemorrhages are often profuse and occur at intervals, but membranous expectoration in connection with such hemorrhages never occurs. The long-continued palpitation of which this patient complains is presumptive but by no means conclusive evidence of cardiac disease, as we often meet persons who complain of such palpitation in whom no cardiac disease exists. From the history of this case we are unable to reach even an approximate diagnosis. We will therefore proceed to a physical examination of his chest.

On *inspection*, the right shoulder is noticed to be lower than the left, and there is slight retraction of the right side more marked posteriorly than anteriorly. The motion of the right side during respiration is markedly diminished. The apex-beat of the heart is plainly visible one inch to the left of its normal position and over an abnormal area.

On *palpation*, vocal fremitus is more marked on the right than on the left side, especially in the mammary and in the superior axillary region.

On *percussion*, there is a loss of pulmonary resonance over the entire right chest, most marked in its lower portion.

On *auscultation*, exaggerated respiration is heard over the entire left lung. On the right side, below the nipple, there is almost entire absence of respiratory sound. On a line with the nipple, bronchial respiration is heard over the right infraclavicular space; the respiratory murmur is heard feebly and is high pitched. To recapitulate briefly:

*First*.—We have marked diminution of the right thoracic cavity (retraction of the chest-walls on the right side.)

*Second*.—Increase of local fremitus over the entire right lung.

*Third*.—Dulness on percussion over the right side, most marked below a line corresponding to the right nipple.

*Fourth*.—Diminished high-pitched respiration in the right infraclavicular and scapular region; bron-

chial respiration on a line with right nipple, and, below the line, feeble or absent respiration.

From these physical signs we arrive at the following conclusions: 1st. That the retraction of the right side, and the feebleness of the respiratory murmur over the right lung, indicate pleuritic thickenings and adhesions, while the increase in the vocal fremitus over the right side, and the bronchial respiration on a line with the nipple, indicate pulmonary consolidation. 2d. The up-and-down motion of the liver accompanying each respiratory act, and the absence of motion of the chest-walls at the lower portion of the right chest cavity, indicate adhesion of the lung to the diaphragm on its thoracic surface, and of the liver to the diaphragm on its abdominal surface.

Let us now examine the heart. You observe that the apex-beat is an inch below and on a line with the left nipple, and that its visible area and force are abnormally increased. It is accompanied by a tremor which is not purring in character. No murmur is heard at the base nor along the line of the vessels, but at the apex there is a murmur which precedes and accompanies the first sound; the second portion of the murmur is heard in the left axillary region, but is not heard behind at the lower border of the scapula; the rhythm of the heart's action is normal. These physical signs lead us to diagnose disease of the mitral orifice, which causes slight obstruction to the current of blood from the left auricle to the left ventricle, and also allows slight regurgitation to take place from the left ventricle to the left auricle. With this valvular lesion there are evidences of hypertrophy of the left side of the heart.

Upon examination of the hepatic region, we find that the area of hepatic dullness extends two inches below the free border of the ribs, on a line with the right nipple, and the free border of the right lobe of the liver can be distinctly felt below the ribs; it is smooth and rounded. In extent the left lobe appears nearly normal, and manipulation of the liver gives no pain. The area of splenic dullness is slightly increased beyond its normal limits. No tumor can be detected in the abdominal cavity by palpation or percussion. There is no oedema of the feet, nor evidence of fluid in any cavity. The pulse and temperature are normal.

Now, gentlemen, with the history of this case and the results of our physical examination before us, it is evidently still impossible for us to reach a diagnosis. We know the patient has a moderate mitral regurgitation with pleuritic thickening and fibrous induration of the lower portion of the right lung, yet these are not sufficient to account for the symptoms which he has given us. To briefly review the case: here is a man who has had more or less hemorrhage from his lungs for a year; the blood expectorated has been of a bright-red color; at certain periods the hæmoptysis has been profuse, and he has coughed up considerable quantities of a substance resembling membrane; in one or two instances this membrane was in the form of a sac. When this membrane substance was expectorated the patient was in an hospital, under the care of a careful observer, who examined it microscopically, so that we are not in doubt as to its exact anatomical structure, and thus we are greatly aided in our diagnosis. As I have already stated, the history and the description which the patient has given us would very naturally lead us to think the disease might be fibrinous bronchitis, in the course of which disease membranous casts and portions of membrane, more or less firm in character, are often expectorated. Yet, in this case, several competent microscopists have examined

the membranous material expectorated, and have found it a portion of, and, in some instances, a complete hydatid cyst. Within these cysts, and adherent to their walls, were found minute white particles, which under the microscope proved to be "*echinococcus hominus*," and by these the exact nature of the membrane was established beyond doubt.

*Hydatids of the lung* is one of the rarest of pulmonary affections. This is the second case I have seen. It is possible for hydatid cysts to be developed primarily in the pulmonary substance; usually they find their way into the lung from the liver. When developed in the lung, they may exist for some time without causing any very marked disturbance; but as they gradually enlarge, they exert pressure on the surrounding lung tissue, and may occasion hæmoptysis, bronchitis, pneumonia, or, perhaps, gangrene of the lung. In some instances they have caused perforation of the pleura and pneumothorax; they have also made their way through the diaphragm into the peritoneal cavity. As they enlarge and excite bronchitis, pneumonia, or pleurisy, the general symptoms, and physical signs of these diseases will be developed, but, unless some portion of the hydatid be expectorated, or the hooklets of the "*echinococcus hominus*" be discovered by a microscopical examination of the expectoration, there will be nothing to point to the true nature of the disease.

When the cysts make their way into the lungs from the liver, in most cases the pulmonary symptoms will be preceded by hepatic symptoms, followed by a more or less severe attack of pleurisy. The patient is seized somewhat suddenly with extreme distress and great dyspnoea; the countenance becomes anxious, the features collapsed; the face becomes more or less livid, the extremities cold and clammy; vomiting occurs, and by degrees the patient becomes more or less deeply jaundiced. With these symptoms, the physical signs of pulmonary consolidation are followed by those of excavation. The expectoration changes from that of slightly rusty-colored mucus to a bile-stained, muco-purulent matter, or to a dark-brown, fetid fluid, containing shreds of lung-tissue and portions of hydatid cysts. The pressure of the hydatid cysts on the hooklets of the *echinococcus*, as in this case, is the only distinguishing mark of the disease. The general symptoms and the physical signs might be simply those of hepatic abscess making its way through the lungs. We do not know with positiveness how the hydatids pass from one organ to another. Some are of the opinion that their germs are carried by the blood from one part of the system to another; others maintain that they pass directly from one organ to another by their inherent motive-power. If they pass in this latter way from the liver to the right lung, as they pass through the diaphragm, they must excite a more or less severe pleuritic inflammation, binding the pulmonary pleura to the diaphragm and pleura, and, as they enter the lung, exciting a more or less extensive pneumonic inflammation in the lung substance.

In the case before us probably this has not occurred, for there have been no hepatic symptoms either preceding or accompanying the pulmonary. Although the right lobe of the liver is enlarged, or occupies more than its normal area, no cystic development can be detected in its substance. I am aware that a single hydatid cast might occupy the central portion of the right lobe of the liver, and we might not be able to detect its presence; but, if it passed from the liver into the lung, its passage must be indicated by well-marked and easily recognized he-



patie symptoms. Although hydatid cysts may be found in the lungs, spleen, omentum, and other parts of the body, yet, almost without exception, the parent cyst is in the liver. When these cysts are developed in the lungs, they are first found in the small bronchial tubes, where they excite inflammatory processes in the adjacent lung-tissue, and finally, by their rupture and separation, cause hemorrhages more or less profuse. If they pass from the liver into the lungs, the inflammatory processes and hemorrhage may have been directly caused by their passage. It seems probable that the patient before us has now no cysts in his lungs, for he has had neither hemorrhages nor pulmonary symptoms since he last expectorated cysts, four weeks ago, previous to which time they have been present ever since his first hæmoptysis, which occurred more than a year ago. Within the past four weeks his general health has steadily improved. He has gained flesh, and is almost entirely free from his cough. In all instances where hydatids have been met with in the lungs, the result has greatly depended upon the seat of their development. When they are developed in the pulmonary organs, statistics show that, although the symptoms which attend their rejection are very severe, and may continue for many months, yet recovery takes place in about one-half the cases; whereas, when they make their way into the lungs from the liver, the constitutional disturbance is so great as to leave little hope of recovery.

Treatment is of little avail in cases of intrahydatic. We know of no means by which the cysts may be destroyed or assisted in their expulsion. The only means of service to our patient are those which are calculated to relieve pain, assist expectoration, and sustain the failing powers of the system. Opium, ether, and alcoholic stimulants are generally indicated, and counter-irritants are often useful in relieving the local inflammation. Tonics must be given freely, and the strength sustained by a nutritious diet.

## CLINICAL LECTURE ON FRACTURE OF THE NECK OF THE FEMUR.

DELIVERED AT THE BUFFALO GENERAL HOSPITAL.

By CHARLES C. F. GAY, M.D.,

SURGEON TO THE HOSPITAL.

CASE OF A GIRL *ÆT.* EIGHTEEN YEARS, WITHOUT HISTORY OF INJURY—SHORTENING AND EVERSION OVERCOME BY BREAKING UP OLD ADHESIONS AFTER EXISTENCE OF FRACTURE OF NEARLY THREE MONTHS' DURATION—INTERCURRENT RHEUMATISM—TREATMENT—RESULT.

GENTLEMEN:—During my present term of service, there have been under treatment in this hospital four cases of fracture of the neck of the femur, which have presented no complications nor afforded any interest aside from the mere fact of the existence of fracture, all of which have terminated in recovery; but we now have a fifth case in the female ward which has attracted much attention and excited much interest from the fact that no cause has yet been assigned for the existence of the hip lesion. The house surgeon, Dr. Stockton, has preserved notes of the history of this most interesting case, which he will now be so kind as to read.

Kate Speigle, *æt.* 18 years, domestic, American, of Irish parentage, entered the hospital January 19, 1878; had been sick since December 29, 1877; taken at night with acute pain in shoulder. In morning it

had changed to the inner side of the thigh, well up. Part was inflamed and very painful. Her physician "suspected spinal fever," or saw, rather, such premonitions. Later, it was thought that dead bone was the active agent, and an abscess anticipated. Thigh was swollen and sensitive; the knee well flexed, and to move the leg caused much pain in the thigh. Investigation showed that she had an abscess in the thigh when five years old, which her parents attributed to measles, but it was afterward ascertained that after this the patient had a fall on the pavement, and was immediately after confined to bed with the abscess.

This was the only illness she had experienced. After mature consideration, it was decided that the patient was suffering from rheumatism, and she was given salicylic acid, grs. x., every two hours for forty-eight hours, and then grs. x. every four hours for several days, with anodynes to quiet pain. Pulse at the time of entrance to hospital and afterwards was, January 19th to 29th, A.M.: 94, 114, 100, 102, 120, 100, 98, 100. P.M.: 108, 90, 90, 91, 108, 110, 116, 100.

Temperature ranged from 99½° to 101½°. Inflammation subsided at once by use of the acid Rochelle salt being given as a laxative. In a few days swelling appeared in the knee-joint, which pitted on pressure and presented all the signs of rheumatism.

January 30th.—*Vin. colchici sem.*, gtt. xv. every four hours, given in place of salic. acid. Rheumatism gradually subsiding. March 4th, rheumatism well.

To-day, March 4th, Dr. Gay was requested to visit this patient in consultation, who, upon measuring the leg, found that there was a shortening of two inches and the foot greatly everted, and while upon the sound side the distance from the greater trochanter to the anterior spinous process was five inches, upon this side it was seven inches. Dr. Gay thereupon remarked that there were at least two signs present of fracture, viz., shortening and eversion, and advised extension. March 10th.—Extension by weight and pulley—twelve pounds—continued several days. It relieved her pain, and it was thought the foot took a more natural position. March 14th.—The patient was transferred to the surgical ward (service of Dr. Gay). March 23d.—The leg was manipulated by Dr. Gay in the presence of several medical gentlemen and students, which resulted in lessening the distance from the trochanter to the anterior superior spinous process of the ilium from seven inches to four and one-half or five inches. Foot was also brought into natural position and readily retained there. Extension was again applied, eight pounds weight being used. Before manipulation she was partly etherized, but took the anæsthetic very badly, so that insensibility to pain could not be established perfectly with proper regard to safety. She was removed to a hard bed and given morphia, gr. ½. Pulse from March 23d and after was, P.M.: 158, 130, 108, 118, 118, 120. A.M.: 160, 130, 108, 118, 118, 118, 120. Temperature, A.M. and P.M. the same, viz.: 102½°, 102°, 101°, 101½°, 99°. Some dyspnoea and pain in chest, and slight hæmoptysis occurred the succeeding evening. Digitalis was given; gradually improved; leg felt well save some pain in hip-joint; morphia given.

April 1st.—There has been steady improvement in general and local condition. April 8th.—Leg is three-fourths of an inch short.

The patient says her father had told her that this limb was always the shorter since the "abscess." Her mother did not know it, and no positive proof was given.

Since the report of Dr. Stockton was written, some further knowledge has been gained respecting the his-

tory of this case, obtained from the mother of the girl. It appears that Kate was away from home working as a laundress; that she stood at the table all day, on the Saturday before New Year's, ironing, and that at six o'clock she became disabled, and was put to bed, and that in one week and a half was conveyed to her home, where she remained three weeks before coming to the hospital; and that she placed her hand upon her hip, and declared that her leg was broken.

The mother further states that, when her daughter had the abscess upon the thigh, the girl was attended by a midwife, and that the abscess spontaneously opened; that she was laid up eleven weeks, then got up, and walked as well as she ever did.

Kate says she never knew there was any difference in the length of her limbs; that she never went lame, and that her foot turned out no more upon one leg than the other. She furthermore says she took the position from the first with the foot turned out, because it was the most comfortable to her, and both mother and daughter say she was never able to move the limb from the day she became disabled.

The parents are both healthy, never had rheumatism, and Kate never had any other sickness than the measles and abscess, and has always been remarkably healthy and strong.

Now you want to know if I am able to account for the shortening and eversion of this patient's limb, and if there be fracture or dislocation, how it is possible for one or the other to occur without first having sustained injury. If it be true that this girl has a fracture of the neck of the femur without having sustained any known injury, and it has remained unrecognized eight or ten weeks, it becomes a most remarkable case, a full report of which should go on record. The girl seems entirely truthful and honest, and there is certainly no reason why she should conceal the fact of injury, if any injury had occurred. There is no motive for concealment.

Now, the first subject that attracts attention in connection with this case is that of rheumatism. Rheumatism is often a concomitant to injuries of joints. It is an intercurrent affection or is consecutive to joint injuries, or injuries occurring in the vicinity of and involving the joint structures. But in this case, if we are obliged to admit that no accident happened to this person by which her leg was broken, then the rheumatism becomes the primary affection, and we are led to suppose that acute rheumatic arthritis had induced interstitial change or softening to the extent of causing absorption of the neck of the femur, with, perhaps, epiphyseal separation and consequent shortening. Fortunately, the figures preserved by the house physician of the temperature and frequency of the pulse during which it is affirmed the patient had rheumatism, and the temperature and frequency of the pulse for some days subsequent to the manipulations, throw some light upon this subject, for it will be observed that upon no day during the rheumatic fever, from its invasion till its termination, did the pulse and temperature rise so high as they did for several days after the manipulations. During the rheumatic attack the pulse reached 120 per minute, and this only for one day; the temperature did not exceed  $101\frac{1}{2}^{\circ}$ , while the day after manipulating the limb the pulse stood at 153, the next day at 130, and the temperature rose to  $102^{\circ}$ . These figures are strikingly significant, and point to possible error in diagnosis; but having all confidence in the judgment of the medical attendants, I do not raise any question of doubt as to the correctness of the diagnosis. During the inhalation of ether it was observed that the pulse became very rapid, and

much caution was used in the administration of ether.

The frequency of the pulse remaining for two or three days was at the time attributed, but perhaps erroneously, to the effects of etherization.

From the history of this case, the occurrence of abscess upon the thigh, the fall upon the pavement when five years of age, striking upon the hip, together with the father's assertion that the leg was always shorter than the other, it might be inferred that the girl, in her earlier life, had hip-joint disease, to which is now superadded acute rheumatic arthritis, were it not for the fact that the patient had never limped or suffered pain in the hip; that the limbs were of equal size; that there was never eversion of the foot, and, according to the patient's own statement, that she never knew any difference in the length or strength of her limbs, but that "one was as good as the other," until her present disability.

Our Philadelphia friends have demonstrated, in the case of Haire vs. Reese (McClelland's "Civil Malpractice," p. 92), that, without fracture, shortening occurs by *interstitial absorption* from inflammatory softening, the result of contusion of the hip. "Numerous pathological specimens from the museums of Philadelphia" are presented to illustrate such a case.

Simple contusion certainly could not cause such result as we find in this case by falling upon the sidewalk or pavement when the girl was but five years of age, since there followed no symptoms of hip-joint disease. Contusion could not later have occurred without the knowledge of the girl herself. Had she received a blow at any time or fallen upon the hip, causing contusion which disabled her, a fracture would doubtless have been immediately recognized, and the subsequent perplexities which have environed the diagnosis would not have existed.

There is no way of accounting for the two inches of shortening of this patient's limb but by the existence of fracture of the neck of the femur or coxo-femoral luxation. As to causation, we shall probably be forever unable to gain any more light than that we now have.

Suprapubic luxation is the only one accompanied by eversion and shortening, and it is easily recognizable by feeling the head of the femur, which forms a prominence upon the pubes, and when felt by the hand is demonstrative evidence of the existence of dislocation.

In dorsal dislocation we have inversion,\* but if, as an exceptional case, persistent outward rotation should exist which would carry the trochanter far away from the spine of the ilium, we should have what I have never yet met with.

I do not think it possible for the trochanter in coxo-femoral dislocation to be separated so remotely from the iliac spine as we find it is in this case. This degree of separation can only occur in fracture; therefore it is legitimate to conclude that it is impossible for luxation to exist, while it is quite certain that fracture of the neck of the femur does exist.

Now it will be found much more difficult to differentiate fracture and dislocation in a chronic than in an acute case. In a recent case of intra- or extracapsular fracture, you extend the limb, then rotate it, and you will get crepitus, unless the fracture be impacted, and this one sign determines the diagnosis. In an unrecognized or chronic fracture of some weeks' dura-

\* Everted dorsal luxation occurs, when the outer band of the ilio-femoral ligament is severed. (Bigelow.)



tion, the limb cannot be either extended or rotated; it is fixed and immovable; therefore crepitus cannot be obtained. Indeed, the signs of old fracture are transferred from the side of fracture to the side of dislocation, so that if it were possible, as it certainly is, in exceptional cases, for inversion to exist in intra- or extracapsular fracture, we should have all the signs of dislocation and none of the signs of fracture, when fracture actually existed. Now, in the case of fracture of the cervix femoris, I do not think it at all necessary or possible to make a rigid diagnosis between intra- or extracapsular or mixed fractures. I do not think a differential diagnosis at all essential for prognosis or treatment, since the treatment in either case, and in all cases of the old or young or middle-aged, by extension, ought always to be employed, not so much with the view of making the injured limb as long as the sound one, but in order to obtain osseous union or union by as short a ligament as possible, and in order also to relieve the patient of pain, which will be caused by displacement of the lower fragment of bone, causing it to chafe and fret the soft parts, and erosion of the hard parts upon which the fragment of bone rests. It is my opinion that the fracture that we have under consideration to-day is what Gosselin terms a mixed fracture, *i. e.*, a fracture partly within and partly without the capsule, and that having placed the upper and lower fragments in apposition, ossific union is assured.

The manipulations made in your presence on the 23d of March were very similar to those made in the reduction of a dislocation by the flexion method. Three times was the leg flexed upon the thigh and the thigh flexed upon the abdomen, adducted, rotated inward, and extended, without overcoming the shortening and eversion. The thigh was next carried well down upon the abdomen, abducted, rotated outward, and extended, when it was seen that both shortening and eversion were overcome; the limb remaining without restraint in a normal position by the side of its fellow.

During this last manoeuvre an impulse was conveyed to the hand such as is felt in the reduction of a dislocation when the head of a dislocated bone suddenly slips into place, and it was accompanied by a sound sufficiently audible to be heard at a considerable distance, and which induced two or three of the medical gentlemen present to believe and affirm that a dislocation had been reduced instead of a fracture, and the normal position of the limb, without restraint, with more than an inch of shortening overcome, furnished additional strength to the convictions of those who leaned to the side of luxation.

The impulse felt and the sound heard were caused by nothing more or less, I believe, than the dislodgement of the lower fragment, which had so long a time been separated from the upper fragment of bone, and their coaptation.

All who were present during the manipulations can bear witness, I think, to the care exercised in order that, if no good could be done, at all events no harm should be done or injury inflicted upon the patient; therefore much force was not employed, and attention, more than once, was called to this fact, for I was determined, at the outset, that no one, *not present*, should be put to the trouble to testify to the probability that the fracture was caused by unnecessary and violent manipulations.

The result, as you well know, has been so successful as to justify the means employed and to excite the gratitude and elicit the thanks of the patient and her friends. This case furnishes you an illustration of

the importance of the exercise of proper care and vigilance in your investigations of the lesions of the hip-joint, since, as you have observed from the history, this lesion remained unrecognized for more than two months, during which time the leg was twice examined, at the solicitation of medical attendants, by a surgeon who pronounced it "all right."

*Treatment.*—Following the operation upon the limb there was of course some pain and swelling at the hip, and in its vicinity, which, however, passed away in three or four days, upon the application of warm water fomentations. During the patient's protracted illness she had taken morphia daily and become addicted to its use. She would call for it often, saying that she had pain in her limb, but its use was discontinued, and soon the complaint of pain was no longer made.

Extension was applied (eight pounds weight) for four weeks, with the foot of the bed raised. Three bands of adhesive plaster, two inches in width, and long enough to embrace the entire circumference of the pelvis and overlap, were carried firmly around and over the trochanters.

These bands have proved most efficient in several instances where I have used them. They are useful, not only in keeping the fragments in coaptation, but also in preventing eversion. Hamilton's long splint for the treatment of intra- and extracapsular fractures could not possibly fulfil the indications for treatment more acceptably than the appliance I have used in this case, and it is much simpler and more easy of application.

In four weeks all appliances were removed, and the patient allowed to get up and walk about the wards of the hospital with the assistance of crutches. She has good motion of the hip-joint with rotation inward and outward as perfect as in the sound limb, with no unnatural tendency to eversion, and with only three-fourths of an inch shortening.

September 24th.—For the past two months this girl has been able to walk about the room without assistance. For any longer walk she uses one crutch. To-day scarcely three-fourths of an inch shortening is shown by careful measurement.

## THE HISTORY OF INSTRUMENTS OF PRECISION IN MEDICINE.

BEING PART OF AN ADDRESS DELIVERED AT THE OPENING OF THE ONE HUNDRED AND FOURTEENTH COURSE OF LECTURES AT THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.

By S. WEIR MITCHELL, M.D.,

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(Reported for THE MEDICAL RECORD.)

THE PULSILOGON—THE CLINICAL THERMOMETER—THE "PULSE-WATCH"—THE STETHOSCOPE—THE MICROSCOPE—THE OPHTHALMOSCOPE, ETC.—THE ELEVATING INFLUENCE OF A KNOWLEDGE OF THE USE OF INSTRUMENTS OF PRECISION.

In thinking over the causes which have led us by degrees to such changes in medical practice as have made our old means of teaching a mere caricature of what teaching should be, I have come upon a group of facts which have singularly interested me, and which are, I think, not very generally known.

They illustrate the history of instruments of precision in medicine, and show how hard it is, or was,

to introduce into familiar use methods for which the mass of the profession is not ready; while they also show, if I mistake not, how swift it is to seize upon and use them when that time has come.

Until a period so recent as to be almost within the memory of some who hear me, the means of studying disease were limited to what we learned through the unaided sight and touch. For, save to listen to what a patient had to tell, the sense of hearing gave us no help, until we were taught the splendid lesson of what to hear, and how to hear it, by those three greatest of listeners, Avenbrugger, Corvisart, and Laënnec.

The books of the end of the seventeenth century, and of the early part of the eighteenth, in their immense minuteness of detail as to the pulse and the character of the secretions, show how the doctor strove, by almost painful notation of the facts he saw, to enable himself to relate such changes to the essential and more hidden phenomena of disease.

A vast number of the pulses and appearances of tongue and feces and urine, which are set down in the books of that day, we no longer think of moment, or have learned to group together, or to read more correctly. In fact, the physician had gone as far as was possible for him to go with unaided senses, and he had now to wait until other assistance came to him, and until physics and chemistry were so far advanced as to lead a helping hand.

#### THE PULSILOGON.

Of the first practical and really available attempt in this way, in the reign of Anne, an almost romantic echo comes down to us from middle-age Italy.

When Galileo watched the lamp swinging in the Cathedral of Pisa, thinking its vibrations to be in equal time, and therefore fit to be measures of duration, he was but eighteen, and had begun, much against his wishes, to study medicine. Desiring to have at once some test of the regularity of the swing of his pendulum, he is said to have used that most wonderful of clocks, the pulse, as a test.

This was a grave moment in the history of medicine. It was the birth of precision; nor can we conceive of a more striking picture than this wonderful boy, in the gloom of the darkened church, intent on a fact which was, by and by, to give to every science the pregnant gift of exact measures of time. It is also interesting to note, in passing, that some forty years later, when near the end of his life, Galileo, in describing the accuracy of his first clock-work, still refers to the pulse as a measure of exactness. "My clock," he says, "will not vary so much as the beat of a pulse."

From using the pulse as a test of the regularity of the pendulum, he seems to have been led, when but a lad, to make use of the pendulum to measure the pulse-rate. His instrument was known as the pulsilogon. The method of using it was most ingenious. Having always a pendulum of equal weight, he set it swinging and then shortened the string or lengthened it, until the beats corresponded with those of the patient's pulse. Then he measured the length of the string, and B's pulse would be represented arbitrarily, but most precisely, by, we will say, ten inches; C's by eight inches. Galileo seemed to have given but little care to the perfection of this invention, and does not speak of the medical use of the pendulum in any of his essays. The most we know of it comes down to us from his pupil Viviani.

A contemporary of Galileo, also an Italian, professor of medicine at Padua, the well-known Sanctorius,

described in 1626 several forms of what he also called the pulsilogon. There is little doubt that this was precisely the same instrument that was used by Galileo, and left, through his large-minded indifference, to be appropriated by the first unscrupulous claimant.

#### THE CLINICAL THERMOMETER.

Meanwhile, Galileo had invented the thermometer, and is said to have applied it to medical uses, as Sanctorius undoubtedly did many years after.

During this brilliant era of Italy, medicine had thus offered to it such chance of gain as came to it not again for many a day.

The use of the thermometer in disease must, in fact, have been quite common, since thermometers of special form were invented for this purpose, and used by tying them on to the wrist. The Grand Duke Ferdinand the Second seems to have been among the most able of those who improved upon Galileo's instrument, and some of Ferdinand's pulse-thermometers were shown in 1876 at the South Kensington Exhibition of scientific instruments.\*

#### THE "PULSE-WATCH."

These inventions served, however, so far as medical progress was concerned, only to illustrate the ingenuity of individual observers, and were without permanent influence; perhaps because the methods used were difficult, and involved costly and cumbrous apparatus; perhaps because the profession was not yet so educated as to be able to make practical use of them.

Be this as it may, the precious gifts were thrust aside, and we hear little again of precision in observation, until in the reign of Anne, 1707, appeared a book which is little known, almost never read, and which contains an account of a new effort to introduce into medicine an instrument of precision. You will feel, perhaps, some sense both of surprise and of amusement, when I tell you that it was the watch; or, as the inventor, Sir John Floyer, calls it, the "pulse-watch." For, after Sanctorius, until about 1707, scarcely any one counted the pulse accurately, or left on record any statement as to its number, save that it was slow or fast, feeble or bounding, or what not. I do not find that Harvey once mentions the frequency of the pulse, or heart-beat, and in those marvellous pictures of disease which Sydenham drew with a certain artistic breadth of effect, there is a remarkable accuracy of all other needful detail, but not a word as to the frequency of pulse or respiration.

Sir John Floyer dedicates his two volumes, the one to Queen Anne, the other to the Duke of Marlborough, since to the doctor then, as to the purely literary back, a patron was necessary, until honest old Sam Johnson broke the spell. Sir John says that he tried the pulse at first by the minute in common watches, and by pendulum clocks, but "after met" with what he calls the "sea minute-glass," which may have been used to time the log; "but because," he adds, "that was not portable, I caused a pulse-watch to be made, which ran sixty seconds, and I placed it in a box. I also made a half-minute glass, whose case turns like a dark lantern, and that was portable and useful in feeling my patients' pulses, but that differed four

\* See Report on Italian Instruments, South Kensington Special Loan Collection, 1876, p. 100 *et seq.* Also Viviani's Life of Galileo, and that by De Nelli. Sanctorius' works are not to be found in any American library; at least there is no copy of his *Comm. in Libri Avenbrugger, Venice, 1626*, which contains details as to his pulsilogon and thermometer.



beats from the minute-glass, which I always kept at home as my standard."

Then, just as we nowadays speak of an instrument-maker, he says, "The pulse-watch here treated of is made and sold by Mr. Sam. Watson, watchmaker, in Longacre, by Sir John Floyer's direction."

With these means Sir John did some good and accurate work in the study of the pulse. He was the first to give the numbers of pulse and respiration in numerous diseases. He studied the frequency of the pulse in old and young, the frequency during rest and exercise, in sleep, and under the influence of baths and of blisters; and he even went so far as to attempt to relate the pulse number to states of the barometer and thermometer. He was often right, and sometimes wrong, but he knew certain facts which have been rediscovered of late years, and he displayed capacities for accurate clinical research which were long wanting after his death. Like a good practical doctor, he gets a passing fling at pure science in the shape of a remark upon the failure of Harvey's discovery of the circulation to influence the practice of medicine.

I presume that in Sir John's day watches with second-hands, giving the duration of the minute accurately, were rare or unknown. For whatever cause, the habit of accuracy in feeling the pulse and determining its number by an unchanging standard did not prosper, and his prediction that this new plan would be sneered at proved only too true. Until the first quarter of the present century definite statements as to the pulse were rare, and the absence of minute-hands, and even of the minute as a universally recognized measure of time, is illustrated by the rare statements in Morgagni, as when he described a case as having a pulse which beat twenty-two times in the one-sixtieth of an hour. It was only when minute-hands had grown common in watches that we came to recognize the now familiar picture of the doctor, watch in hand, a finger on the pulse, the thoughtful face, the anxious lookers-on around the sick-bed.

#### THE STETHOSCOPE.

This brings us down, as we have seen, to the era of the great French teachers who gave us the stethoscope, and forced a generation to learn over in new aspects everything it believed itself to know about heart and chest diseases. It was, and is, an instrument of precision, because it enables us to isolate the sounds which come from limited regions, but it does not magnify sounds as we may hope to do. Every physician who deserves the name now uses the stethoscope, but, as yet, few men of the mass of physicians have trained themselves to practical use of the many other means which, in later years, have come to our aid.

#### THE MICROSCOPE.

The microscope has been long known, but it was useless in practical medicine until the micro-chemistry of the tissues and secretions had been so definitely required as to become popular property. Even as late as when I was a student, those who could employ the microscope were, so to speak, marked men. To day, no busy doctor can practice medicine rationally a fortnight without using it, or having it used for him.

#### OTHER INSTRUMENTS OF PRECISION.

I do not mean to linger over this familiar tale. The otoscope, laryngoscope, ophthalmoscope, above all, the various forms of galvanic or induction batteries, the

æsthesiometer, and the sphygmograph, have all of them, or nearly all, become a part of the arms of precision with which you are called upon to war against disease.

The list seems formidable, but every one in active practice sees every day cases in which, if he means to know all that can be known of his patient's state, one or more, and sometimes all of them must be used. Contrast such an examination of a patient with that which even a Sydenham felt to be sufficient.

These additions to our means of diagnosis have by degrees made medical practice a handicraft, and while making it precise, and giving us definite standards of comparison, have made it in some sense more difficult.

Our machines are not labor-saving. We employ almost as many tools as the surgeon, and more, and also more complicated ones than are used by some mechanics.

#### THE ELEVATING INFLUENCE OF A KNOWLEDGE OF THE USE OF INSTRUMENTS OF PRECISION.

To learn how to use the tools of this handicraft in a workshop so delicate and so sensitive as the human body, makes needful such careful personal instruction as cannot be given in the lecture-room alone, and demands the individual training of the student in hospital, dispensary, and laboratory, and by familiar demonstrations.

Future generations of students will go out of these halls fitted by familiarity with such methods to practice medicine as no former graduates have been. It will be their own fault if out of the use of instruments of precision there comes not other good. In war, the rifle, the telegraph, and the telescope have involved the need for greater intelligence in rank and file. In the cotton-mill, the gradual improvement and complication of machines have, I am assured, elevated and, so to speak, educated a large class of operatives. With us, in a higher sense, the use of refined instruments, of accurate and unchanging standards, has created difficulties, and given a training which tends to raise the level of acuteness in the whole range of medical observation, and so to give rise to keener criticism, to more exact care, to a more intelligent patience.

You will see that I, at least, feel sure that the methods to which we are trained by instruments of precision, help to educate us into intellectual habits, which make us more precise in what we look for, and see, and note with our unaided senses.

Very few of the novel questions of the day, such, for example, as the diagnosis of the locality of diseases of the brain, can be answered by the more careless post-mortem studies of past years. I might say, indeed, so far more precise are we to-day that a world of dispute would be saved by agreeing not to quote for the solution of this problem a single post-mortem study made more than ten years ago. There is, in fact, hardly one which is not open to hostile criticism for want of the kind of care which to-day is exacted in all well-regulated hospitals.

Many of you have perhaps been taught that some of the instruments of precision to which I have alluded belong, like the ophthalmoscope, only to the specially trained practitioner. But ophthalmology, which is, with the exception of the dental art, the most perfect as yet of all the branches of practice, has undergone the change which all specialties undergo. It has come to relate itself so widely with general practice, and has invented so many easy methods of rapid research, that it has grown needful, and indeed easy, for the general

practitioner to become to a large degree familiar with portions of it once considered too difficult for common use.

Now that we know what questions the ophthalmoscope readily solves for us, now that we are aware, for example, how many headaches, vertigos, and other obscure head disorders arise out of imperfections in the eyes, considered as optical instruments working in unison, it is plain that we must more and more strive to learn thoroughly, at least enough for diagnosis, of the modern means of studying the eye. What I have said of this branch of knowledge applies almost equally to the rest.

## Original Communications.

### COTA BARK IN THE DIARRHŒA OF CHILDREN.

By STOEYELL C. PARSONS, M.D.,

VISITING PHYSICIAN TO THE NORTH-EASTERN DISPENSARY.

During the early part of this summer my attention was called to the use of the bark of the quina cota of Bolivia, South America, a drug comparatively unknown to the profession of this country, but which has been very successfully used in Germany and South America.

The advantages claimed for its use are its tonic and specific action without narcotism in the treatment of acute and chronic diarrhœa.

Prof. Wittstein, of Munich, was the first to analyze it in 1875, and found that it contained an alkaloid called cotoïn, which was difficult to isolate, and a resinous substance.

There are several trees of the Cota species, some of which yield paracotoïn instead of cotoïn, the former seeming to bear the same relation to the latter (cotoïn) as cinchonidia to quinia.

Prof. Von Gietl, also of Munich, reports the result in eighteen cases (*Pharmaceutische Centralhalle*, 1876), seventeen of which were successful, the failure occurring in the diarrhœa of pulmonary phthisis.

My first case was that of Ellen D., æt. 32, who had been sick ten days with a constant diarrhœa. At my first visit (August 12, 1878) I found her confined to the bed, quite emaciated, and with a small, thready pulse of 130.

I prescribed grs. v. of the pulv. cota cort. in the form of a pill, and ordered one to be given every three hours.

The next day (August 13th) there were only five or six passages, and they gradually decreased in frequency until August 16th, when the diarrhœa ceased, and she was beginning to feel quite strong.

The result being so satisfactory, I resolved to try it in the diarrhœa of children, but as they will not take pills, and the powder is so irritating to the pharynx, I preferred the elixir.

The number of cases being quite large, I will report a few in full, and tabulate the balance.

Lizzie L., æt. 2 months, had been sick one week, with a passage every half hour; prescribed gtt. viij. of the elixir in a teaspoonful of sweetened water, every hour, and after four doses the diarrhœa stopped.

Margaret W., æt. 1½ years, had been suffering ten days with entero colitis, having a passage every quarter hour, and could retain nothing upon her stomach; ordered gtt. viij. every fifteen minutes for the first hour, afterward hourly; the discharges stopped at the end of four hours.

Thos. J., æt. 5 months, had been suffering with

|                 | Age.      | Time sick. | Passage every | Dose.      | Given every | Number of times given. | Remarks.                                                       |
|-----------------|-----------|------------|---------------|------------|-------------|------------------------|----------------------------------------------------------------|
| Ellen D. ....   | 32 years  | 10 days    | Few minutes   | gr. v.     | 3 hours     | 17                     | Cured.                                                         |
| Lizzie L. ....  | 2 months  | 1 week     | ½ hour        | gtt. viij. | 1 "         | 4                      | "                                                              |
| Margt. C. ....  | 2½ "      | 1 "        | ¾ "           | gtt. viij. | 1 "         | 4                      | Decreased to 3 per day and then passed from under observation. |
| Mary McG. ....  | 3 "       | 5 days     | ⅓ "           | gtt. viij. | 1 "         | 9                      | Cured.                                                         |
| Jno. C. ....    | 5 "       | 1 week     | ⅓ "           | gtt. viij. | 1 "         | 8                      | "                                                              |
| Jas. J. ....    | 11 "      | 4 days     | 1 "           | gtt. viij. | 1 "         | 5                      | "                                                              |
| Margt. W. ....  | 16 "      | 10 "       | ½ "           | gtt. viij. | 1 "         | 4                      | "                                                              |
| Jno. J. ....    | 13 "      | 10 "       | 1 "           | gtt. x.    | 1 "         | 12                     | "                                                              |
| Theresa B. .... | 3 weeks   | 2 weeks    | Few minutes   | gtt. ij.   | 1 "         | 7 days                 | Decreased to 5 or 6 per day and then passed from observation.  |
| Thos. J. ....   | 5 months  | 10 days    | ½ "           | gtt. vj.   | 1 "         | 6                      | Cured.                                                         |
| Edward D. ....  | 13 "      | 10 "       | ½ "           | gtt. vj.   | 1 "         | 10                     | "                                                              |
| Ann P. ....     | 50 years  | 4 weeks    | 10 per day    | gr. v.     | 3 "         | 6                      | "                                                              |
| Geo. P. ....    | 15 months | 1 "        | 20 "          | gtt. viij. | 1 "         | 5                      | "                                                              |
| Julia D. ....   | 2 "       | 10 days    | 1 hour        | gtt. viij. | 1 "         | 1 day                  | "                                                              |
| Chas. C. ....   | 18 "      | 10 "       | ½ "           | gtt. xij.  | 1 "         | 1 "                    | "                                                              |
| Pat. S. ....    | 32 years  | 1 week     | 1 "           | gr. v.     | 3 "         | 6                      | "                                                              |
| Ann K. ....     | 2½ "      | 2 "        | ½ "           | gtt. vj.   | 3 "         | 9                      | "                                                              |
| Ellen S. ....   | 1 "       | 1 "        | ½ "           | gtt. viij. | 1 "         | 12                     | "                                                              |
| Jas. M. ....    | 1½ "      | 2 "        | ½ "           | gtt. viij. | 1 "         | 2 days                 | "                                                              |
| Jno. J. ....    | 1½ "      | 2 "        | Few minutes   | gtt. x.    | 1 "         | 6                      | "                                                              |
| Mary S. ....    | 1½ "      | 2 "        | 10 "          | gtt. x.    | 1 "         | 12                     | "                                                              |
| Ellen W. ....   | 1½ "      | 10 days    | ½ hour        | gts. x.    | 1 "         | 3                      | "                                                              |
| Carrie D. ....  | ¾ "       | 1 week     | ½ "           | gtt. x.    | 1 "         | 1 day                  | "                                                              |
| Ann G. ....     | 53 "      | 1 "        | 1 "           | gr. v.     | 1 "         | 10                     | "                                                              |
| Albert S. ....  | 26 "      | 3 "        | 1 "           | gr. v.     | 2 "         | 8                      | "                                                              |
| Mary W. ....    | ¾ "       | 1 "        | ½ "           | gtt. x.    | 1 "         | 2 days                 | "                                                              |
| Wm. F. ....     | 23 "      | 2 "        | 1 "           | gr. v.     | 3 "         | 9                      | "                                                              |
| Fred. S. ....   | ¼ "       | 1 "        | ½ "           | gtt. x.    | 1 "         | 2 days                 | Died.                                                          |



entero-colitis ten days; prescribed gtt. vj. every hour, first hour four times, and in six hours it stopped.

Geo. P., æt. 1½ years, had been sick one week with entero-colitis, having about two passages per day; ordered gtt. viij. every hour, first hour four times; in five hours all the symptoms were arrested.

The drug has proved beneficial in every case that has fallen under my observation, excepting one; many of them were apparently hopeless; the failure occurred in a strumous child, Fred. S., with acute bronchitis.

I would cheerfully recommend to the profession the use of this drug.

The forms in which it was used were the compressed pill for adults, and the elixir for children, both of which were prepared and furnished through the kindness of Mr. F. Alfred Reichardt, of this city.

123 EAST TWENTY-FIFTH STREET.

## HAY FEVER VERSUS PARALYSIS OF THE DIAPHRAGM.

By WILLIAM C. WEY, M.D.,

ELMIRA, N. Y.

As I read in THE MEDICAL RECORD of September 21, 1878, the report of a case by Benjamin Edson, M.D., of Brooklyn, entitled "Paralysis of the Diaphragm," I was reminded of an experience in the phenomena of disease, bearing such a close resemblance to the incidents he related, that the conviction was at once forced upon my mind that he had furnished for publication the particulars of an instance of hay fever, somewhat anomalous in character, but compassed by the observation of physicians who have seen much of that disease.

Dr. Edson's interesting narrative of the case concludes as follows, viz.:

"The points worthy of note are:

"1. That the disease is a comparatively rare one.

"2. That in this case it appears on a day more than usually warm in May or June of each year.

"3. The singular fact that it appears *only* in those months—at no other time during the year—and under the conditions stated.

"4. That hydrate of chloral has seemed to have power to modify and to prevent the paroxysms."

These conclusions sustain the inference of hay fever, which in the form presented by Dr. Edson, is "comparatively rare," I must admit; developed, however, under certain influences, imperfectly appreciated, which, applied to this particular case, possessed the power of developing a paroxysm "on a day more than usually warm in May and June of each year," assisted by the "singular fact," which confirms the foregoing, "that it appears *only* in those months—at no other time during the year—and under the conditions stated."

The fourth point quoted in reference to the utility of hydrate of chloral in modifying and preventing "the paroxysms," I will not stop to consider, as the observation is as true in its application to a sudden outburst of hay fever as to paralysis of the diaphragm.

Permit me to recall, briefly, the particulars of a case which fell under my observation on the 29th of August, 1877.

A man rang me up at two o'clock in the morning, almost breathless with excitement, stating that his wife, he feared, was dying, and required immediate attention. Upon reaching his house I learned the following history: The patient, a healthy woman,

forty years old, retired to bed as well as usual the night before, and quickly fell asleep. Awaking suddenly between one and two o'clock, she experienced such a distress in breathing, amounting to inability to accomplish even a partial inspiration, that she sprang up in bed, gasping, ordered the doors and windows thrown open, and called upon two hurriedly summoned members of the family to fan her vigorously, to aid her efforts to obtain a supply of air. With prominent eyes, dilated nostrils, and her arms thrown wildly around, she presented an appearance of impending death. Her hands and feet were cold, and the heart's action was greatly quickened and very feeble. She had no pain in her chest, and in short, explosive utterances begged to be relieved of the feeling of suffocation which oppressed her, which she had attempted to mitigate by tearing open her night dress, the more readily to obtain the fullest contact of the atmosphere with her body. I proposed a hypodermic injection of morphine, to which her husband would not assent, and I was compelled to give the remedy by the stomach, with hot whiskey, in rapidly repeated doses, at the same time using warm bricks and bottles to the extremities. In the course of an hour the hands and feet grew warm, the breathing became quiet, and the patient dropped back upon two large pillows. Before she lay down I ascertained that the lungs were free from obstruction and the sounds of the heart normal. This lull in the symptoms gave me an opportunity to inquire concerning her past experience in sickness, and the fact was revealed that one year before, at about the same time in August, she was attacked with hay fever, which came on with suffusion of eyes, sneezing, and nasal discharge, and ran its course of a few weeks in the usual way. I left the woman lying composedly in bed, to be summoned again in five hours, in consequence of renewal of symptoms, though not to the same degree as before. A hypodermic injection of morphine, to which no objection was made, promptly abated her distress. For perhaps a week following this attack, the catarrhal manifestations of hay fever were exhibited, which yielded to liberal portions of quinine, or proved abortive because of the violence of the invasion of the disease, or from some other cause in connection with this peculiar and intractable malady, which it is hoped the researches of patient investigators will enable us eventually to understand.

October 1, 1878.

ON THE USE OF WINE IN THE CAPILLARY BRONCHITIS, OF CHILDREN.—M. Bonamy, of Nantes, speaks highly of the use of wine in the treatment of capillary bronchitis in very young children. He does not think very large doses advisable; he gives from five to six ounces daily to children between one and two years of age, varying the dose also according to the strength of the patient. As adjuvants he employs cutaneous revulsives and ipecac. He reports three cases in which this treatment was crowned with complete success. One was a case of severe broncho-pneumonia; from five to six ounces of Malaga wine were given daily, and under its influence the respiration fell rapidly from 50 to 26 in a minute. In the other two cases he had to deal with broncho-pneumonia complicating pertussis; one of the patients was in a state of collapse when the treatment was begun. He used the following formula in these cases: Malaga wine, ʒ iij.; peppermint water, ʒ iijss.; syrup of orange-peel, ʒ v. M. A dessertspoonful every hour.—*Jour. de M. d. et de Chir.*

## Reports of Hospitals.

### COOK COUNTY HOSPITAL, CHICAGO.

(Reported for THE MEDICAL RECORD.)

#### CASE OF CYSTITIS AND VAGINISMUS—RAPID DILATATION OF URETHRA—PERITONITIS AND DEATH.

LIZZIE D., domestic, æt. twenty-three, single, of Irish parentage, was admitted to the surgical department of the hospital in the early part of February, 1878. She said her parents and some brothers and sisters had died of consumption or other tubercular diseases. She had been, until the beginning of this sickness, generally healthy.

For nearly two years she had been troubled with too frequent and painful micturition. Pain, which she located in the vulva, occurred always immediately after the urine was voided, and sometimes in the intervals. She had neuralgic pains in the sides frequently and in the back, and sometimes vague wandering pains in other parts of the body.

She looked pale and delicate; her appetite was poor; her bowels were habitually constipated; her menstruation was regular, but scanty. An attempted examination of the pelvic organs discovered the most intense hyperæsthesia of the urethra and ostium vaginae. There was vaginismus to a degree that made a digital examination of the uterus impossible.

By passing the finger into the rectum the uterus was found to be in a state of slight procidentia.

The urine contained considerable pus and vesical epithelium, and a few blood-corpuscles.

She was treated for a month with daily injections into the bladder of weak solutions of chlorate of potassium, boracic acid, etc., without benefit. Each operation was attended with great apparent suffering, evidently mostly or quite all from the introduction of the catheter through which the injection was made.

She was transferred, March 9th, to the gynecological department, in care of Dr. Norman Bridge. She was ordered 7 grs. bromide and 15 grs. acetate of potassium four times daily, and warm fomentations to the vulva.

The next day she had a slight chill that was followed by fever. In the afternoon the pulse was 120, temperature  $102\frac{1}{2}^{\circ}$  F. She was ordered 5 grs. quinine every four hours, as the fever was supposed to be malarial. By the 13th the fever had disappeared, and the patient felt more comfortable.

Dr. Byford had examined the case on the 11th and advised that, on the disappearance of the fever, rapid dilatation of the urethra be performed. Accordingly, in the afternoon of the 13th the patient was etherized, and the urethra dilated to three-quarters of an inch diameter. Three slight preliminary incisions were made in the border of the meatus to avoid rupture of the mucous membrane—according to the plan of Simon—and the instrument used was a conical bougie of large size. The patient was returned to bed, and ordered fomentations to the vulva and morphia as needed. In the evening there was a slight fever, but no suffering of consequence. The urine flowed from the bladder without control of the patient.

The next day there was absence of fever till evening, when two sharp darting pains were perceived in the abdomen, and the temperature rose to  $104\frac{1}{4}^{\circ}$  F. by 8 p.m. There was very slight tenderness to pressure over the abdomen. The bowels moved spontaneously in the course of the evening. With liberal dosing

with morphia the patient slept well, and next morning the fever was gone. She continued without fever and to improve until the afternoon of the 17th—four days after the dilatation—during which time she was taking citrate of iron and quinine, and eating fairly. She was then discovered to have a temperature of  $103^{\circ}$  F., but had little or no pain. Next day the temperature was slightly above  $101^{\circ}$  F. all day. She had slept well, and had slight hypogastric tenderness. Next day (18th) there was more fever. On the morning of the 19th the thermometer showed  $99\frac{1}{2}^{\circ}$  F. But at  $7\frac{1}{2}$  p.m. she had a severe chill that lasted half an hour. This was followed by vomiting and high fever (P. 147, T.  $105\frac{1}{2}^{\circ}$  F.), which continued all night. Severe pain appeared in the hypogastrium, and there was some tympanites. Punctics were applied and morphia administered. At 9 a.m. of the 20th, P. 128, T.  $105^{\circ}$  F.;  $2\frac{1}{2}$  p.m., T.  $100\frac{1}{4}^{\circ}$  F.; ordered blister to hypogastrium  $4 \times 6$  inches. At  $8\frac{1}{2}$  p.m., the temperature had fallen to  $97\frac{1}{2}^{\circ}$  F.; the next morning at 9 it was  $96\frac{1}{2}^{\circ}$  F., and at 12 it was only  $97\frac{3}{4}^{\circ}$  F. The surface and extremities were cool, and the mental condition was one of slight stupor. Artificial heat was applied, whiskey was given internally. The blistering material had caused no vesication. Reaction was good on the following day, when the temperature was  $103^{\circ}$  F. From this time she continued in an irritative fever, the temperature being most of the time above  $100^{\circ}$  F., until she died of exhaustion, the 19th of April, over a month after the dilatation of the urethra. Her tongue was red and fissured, and very sore. There was no tympanites and no tenderness over the abdomen more than over any other part of the body; she complained on being touched anywhere.

On the morning of the 23d, jaundice appeared. This was very marked for two or three days, when it gradually passed off. During its continuance the hebetude was greater, and sordes appeared on the teeth. From this time appearances of bed-sores presented themselves. In ten days large sloughs had formed over the lower part of the back and sacrum.

The patient was nourished with beef-tea and milk-punch, and was given morphia to the extent of quieting pain.

Unfortunately no post-mortem examination was allowed.

#### ABSCESS OF THE GROIN, AFTER CONFINEMENT, SIMULATING PHLEGMASIA DOLENS.

MOLLY C., colored, servant, twenty-nine years old, was admitted to the hospital May 13th, ten weeks after her confinement. Her mother had died of consumption. She herself had had cough for several years, expectorating frothy mucus. Three months previous to her confinement her feet and legs had begun to swell. This symptom had disappeared with the use of lemonade and pediluvia. A short time after this she began to have pain in the left groin, just below Poupart's ligament. From that time till the date of admission she had not been free from this symptom. Three weeks after confinement there appeared at the seat of pain a swelling about the size of a hen's egg. This swelling decreased in size somewhat for two weeks, when she noticed the foot and leg of that side were swelling. The whole limb became swollen, and she had sensations of fever frequently. Pain was experienced along the anterior and inner aspect of the thigh and in the popliteal space. Three days previous to admission she noticed a slight swelling just above the crest of the left ilium, which had become painful.



On admission she had pain in the left groin, and an annoying cough. There were abundant râles all over the chest. The left leg and thigh were greatly swollen; there was tenderness along the inner aspect of the thigh; there was a point of pronounced induration just below Poupart's ligament; also an enlargement just above the ligament, which gave a faint sense of fluctuation. There was slight œdema in the right lower limb. The temperature was  $103\frac{1}{2}^{\circ}$  F. The urine was brown, and contained about five per cent. of its bulk of albumen. Two days later the fever was less. The tumor in the groin was more prominent; fluctuation was positive, and the aspirator needle was inserted, and ten ounces of thick pus evacuated. The patient grew weaker and worse. There was more fever, cough, and expectoration; the abscess was refilling; the swelling in the limb was worse. At the end of four days, while the surgeon was on the point of opening the abscess, it burst spontaneously. A very large quantity of pus was evacuated. From this moment convalescence was established. The swelling in the limb disappeared in a few days, as well as all other symptoms of disease. After a day or two the abscess discharged only seropus; in a week it was healed. She was discharged well, five weeks after her admission. The secretion of milk, in this case, had ceased soon after confinement. While the œdema in the left limb was greatest, the patient called attention to an enlargement of the right labium majus, which was found to be quite excessive, resembling in appearance an œdematous swelling, but being harder, and not entirely disappearing on pressure. This disappeared with the general recovery. Curiously, there was no enlargement of the left labium.

## Progress of Medical Science.

**BLEPHAROSPASM WHICH RECOVERED UNDER TREATMENT.**—Dr. Thomas Buzzard, of London, has published the record of a case which he has successfully treated. The patient, a married man of 53, who had previously enjoyed good health, complained of spasm in the left eyelids. At irregular intervals the orbicularis palpebrarum was spasmodically contracted, the eye being closed firmly for a few seconds. There was also a frequent winking of the eye between the more severe spasms. In examining for "pressure points" or spots that would stop the spasm, no response was found over the infra-orbital, supra-orbital, or inferior maxillary nerves, but when the finger was pressed upon the tragus and on the skin for about an inch in front of it, the spasm ceased to take place as long as the pressure was continued, but recurred with more than usual violence when the finger was lifted. Within the ear there was a peculiar sensation, which he found it hard to describe. Some wax was removed by syringing, but, though the hearing was improved, there was no diminution in the spasm. The constant current from a Stœhrer's battery was then applied with six cells, one sponge being placed just outside the outer canthus, and the other in front of the tragus. The application lasted ten minutes, and while it lasted the spasm was scarcely perceptible. Four days later the same treatment was repeated, and after three days more the twittings had ceased, and there was only a tremor in the lids. Not long after, the patient went into the country, complaining only of a little "life-blood" in the lid. This case is regarded by the writer as

having had its origin in the accumulation of wax in the ear, just as in the case mentioned by Von Graefe an ulcer upon the left glosso-palatine arch caused bilateral spasm, which ceased when the ulcer was healed. Probably the disorder would have subsided, without further interference, in due time after removal of the wax; but the passage of the continuous current stopped it immediately.—*The Practitioner*, June, 1878.

**A SUMMARY OF VIEWS AS TO URETHRAL STRICTURE AND ITS TREATMENT.**—Dr. Thomas R. Brown, of Baltimore, has addressed circular letters to various surgeons who have had large experience in genito-urinary diseases, aiming to elicit from them their views upon some of the vexed topics of stricture and its treatment. Among the correspondents were Drs. Gross, Van Buren, Bumstead, Bigelow, and Otis, of this country, and Barwell, Lister, Bryant, Berkeley Hill, Teevan, Sir Henry Thompson, and Sir James Paget, of England. In response to the question, "What is your opinion as to there being such a condition as spasmodic urethral stricture?"—the affirmative and negative answers were about equal in number, though nearly all agreed that, when a slight organic narrowing of the canal exists, spasms will take place, especially if the urine be irritating. In answer to the question, "What means of relief should be employed when renal disease is detected?"—the majority preferred gradual, continuous dilatation or divulsion, rather condemning every operative procedure, except under the clearest necessity. In answer to the question, "In what proportion of your cases, treated by any of the methods in common use, would you be willing to state that such a complete relief has been afforded as to secure the patient an entire immunity from the after-introduction of the sound?"—nearly all thought that the sound could not be dispensed with, for an indefinite period, at all. To the question, "How far individual observations had confirmed the view of Dr. Otis as to the relation between the size of the urethra and the flaccid penis?"—the majority had no answer to make, because they had no experience in the matter. Dr. B. attaches less importance to the measurements of the penis and more to the indications of the urethrometer. Drs. Pease, of Syracuse, and Mastin, of Alabama, corroborate the statements of Dr. Otis as to the relative measurements, while others are disagreed. The sentiment of almost all the respondents was that close strictures of the penile urethra should be treated by internal section, and all the rest by gradual dilatation or divulsion.—*Trans. of the Med. and Chir. Faculty of the State of Maryland*, 1878.

**NEUTRAL ACETATE OF LEAD IN GRANULAR CONJUNCTIVITIS.**—Dr. Pierd'hony employs finely powdered, neutral acetate of lead in the following manner, in the treatment of conjunctival granulations: a blunt-pointed hair pencil is slightly moistened, impregnated with a small quantity of the powder, and then brushed lightly over the exposed surface, so as to touch all the granulations. The mucosa must first be carefully cleansed. He claims that incrustations on the cornea are not to be feared, even when ulcers exist. The granulations, after the application, appear flattened and shrivelled, and are covered with a delicate, whitish pellicle. The reaction does not last longer than twenty-four hours, but it is sufficient to repeat the operation every four or five days. The advantages claimed for this mode of treatment over that by nitrate of silver or bluestone are that it is less painful, that cicatrices are less likely to form, and that the time required to produce atrophy of the granulations is only about half as long.—*Le Lyon Médical*.

# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE TREATMENT OF CRIME AND REFORM OF CRIMINALS.

### I.

A MOST suggestive document has come to us in the form of the official "Report of the Inspectors of the State Prison of the State of Michigan for the Year 1877," reflecting the greatest credit upon its authors, not simply for its valuable and detailed tables, etc., but for the expression of the highest and broadest humanitarian views upon the subject of discipline and reform of criminals. Nor does the philanthropy end with the mere expression of reformatory views, but in their practical application by those in authority. The inspectors say:

"It is the governing rule of the prison, while endeavoring to maintain strict discipline, not only to recognize the possibility of reform, but so to administer the trust as to secure such a result. The fact is recognized that few men are *wholly* bad. They [convicts] have moral natures that, however degraded, may be influenced and lifted up; justice and humanity they can appreciate as well as others. In case of a violation of the penal laws of the State, the violator has shown that he possesses a disposition that has led to such violation, and that similar motives and similar inducements will probably lead him, if unrestrained, to the commission of further crime. The public have the right to demand protection from any further depredations on his part. The criminal is tried, convicted, and sentenced to be confined in the State Prison. This is not done in a spirit of revenge. It is also assumed that it may be probable during the time of his imprisonment, with the opportunity for calm reflection, the separation from evil associations, and other moral influences that are brought to bear upon him, that he will thereafter be, and remain, a law-abiding citizen; else, if there were no hope of reform, and if it were *certain* that the convict, at the expiration of his term of imprisonment, would at once enter upon a future career of crime, the public would not only have the right, but it would be its duty, to demand that he be imprisoned during life. The average convict is a man of perhaps more than ordinary acuteness of intellect, and he knows what is right

and wrong. If actually guilty, his judgment tells him that imprisonment for the commission of crime is just. And this knowledge leads him to respect the thorough discipline of the prison. Yet the convict is sensitive to injustice, or what he conceives to be so, whether the injustice is connected with his original sentence, or with his experience in the prison. And there is very little hope of reform in any case where such a sense of injustice exists, although there may be no real cause for its existence."

And who can justly gainsay the truth of these propositions?

The subject of crime, its detection, and punishment, is a vast field for study, and a still vaster field for reform. We are all familiar with the parody on justice whereby a suspected person is arrested, preliminarily examined (!), and "committed without bail" to the police or city prison, consigned to a felon's cell, to the unwholesome atmosphere and fare thereof, simply upon suspicion. He must submit to a felon's punishment in advance of proof of guilt! By what principle of philosophy or reason have the law-makers presumed, from time immemorial, to deprive persons of their home or other comforts, simply because circumstances may seem to incriminate them. We are taught that "the law presumes every man innocent till he be proven guilty," and yet the acts of our teachers most outrageously bely their words? This stricture is to be applied not to the treatment of well-known transgressors against the law, not to the petty offenders, but to those suspected of the capital offences. Such a case recently occurred in Kings County; the man, quite aged, taken from his comfortable home and consigned to a felon's cell, held there some little time, and then discharged "for want of evidence"! What redress had he for the ignominy, the suffering for want of home-comforts, the mental agony? Absolutely none; the majesty (!) of the law had been vindicated! At what possible cost? The liberated prisoner's health or mental wreck, the ruin of his business, or death, starvation, sickness, or insanity in his family. Surely justice demands no *such* penalties for simple suspicion. It seems incomprehensible to the reflecting mind that such practice can be tolerated in Christian and enlightened countries—for it is, deplorable admission, in existence in all the so-called enlightened countries! This fact must be due to tradition, conservatism, and public indifference. We have so many followers of Howard, ever trying to ameliorate and reform the condition of criminals, but the state of the law, in its relation to its first step in dealing with the punishment of crime, is left without the slightest question. What remedy is there? is asked. We shall see.

Then comes that injustice to which the criminal is so thoroughly alive, inequality of sentences.

"Eight convicts sentenced for an assault with intent to murder, during the last year, were sentenced as follows: One for forty-five years, one for twenty-five years, one for fifteen years, one for nine years, one



for six years, one for five years, one for two years, and one for one year. We might further illustrate this inequality of sentences by enumerating cases in all departments of crime. As our system of jurisprudence is at present constituted, it is not easy to find a remedy for this evil, for that it is an evil we have no doubt. A crime is committed in a neighborhood that arouses great public indignation and great excitement among the people. If, in this condition of excitement, the trial come on, the plough is left in the field, the tools of the mechanic are laid upon the bench, the professional man neglects his briefs or his patients, the ladies, for the time, omit their household duties, and all, by their presence in the court-room, testify their indignation against the criminal. [This unconsciously influences so that] the jury are more likely to convict, and the court feels that the crime deserves a severer penalty. It is well understood that if the defendant can get his case put over, the battle is half won, [and if deferred till the excitement passes away] a conviction is less certain, and if a conviction be obtained the penalty is likely to be less severe."

This excellent report refers to other circumstances determining inequality of sentences resulting from the discretion which is given to judges.

We need only to recall the case of a notorious abortionist, fully convicted of his horrible crime, and his two years' imprisonment, and compare it with the case of the poor half-starved man who stole a loaf of bread, and Recorder Hackett's sentence of two years, for examples of the law's justice and equity in New York State. Again, let us examine how the law treats the drunkard. By permitting the manufacture and sale of vilely adulterated liquors, poisonous mixtures, and treating the victim of alcoholic disease as a criminal!! It is a well-proven fact that the drinker is a diseased person; that the disease is either hereditary or acquired, like, in this respect, other diseases in its origin; that in its course it tends to destroy the functions of the nervous system especially, and thus undermine the whole system, above all, the mind. The poor unfortunate drunkard is arrested for the boisterousness and pugnaciousness produced by the diseased state of his cerebral circulation due to alcohol, and, if he be sufficiently fortunate to escape a clubbing, is thrown into a cell to await either sobriety, fine and discharge, or other punishment, or death from cerebral congestion or hemorrhage, instead of being taken to the hospital and treated as a sick person. By the late issue of the *London Lancet* (July 23d), we notice the subject of drunkenness is being seriously considered in England in relation to its prevention and treatment by the law. To us, the answer seems very simple: education of the rising generations and legal regulation of the purity of the liquors manufactured for the first; while care of the inebriate as a diseased person will surely meet the second indication in a humane and philosophical manner. Prohibitory laws and severe penalties can only work harm at every point.

"When a criminal is tried and convicted, and sentenced for the commission of a crime, the public can

exact no further accountability from him on account of the crime.

"But the public law, having spent its power in convicting and sentencing him, he, at once, on entering the prison, becomes subject to the laws for the government and control of the prison itself. These laws must be strictly obeyed, and the authorities of the prison must not only have the power, but must exercise it, to enforce obedience. With any other than a rigid system of perfect obedience, anarchy would exist. Every infraction of the rules to a greater or less extent affects the whole prison. Therefore, as strict obedience is absolutely essential to the well-being and safety of the prison, the only question is as to the best method of enforcing that obedience. Our experience convinces us, against our preconceived idea, that the discipline of the prison cannot be preserved without the infliction of corporal punishment in certain cases, and what is equally important, unless the convicts feel that there is absolute certainty that it will be inflicted in such cases. But no barbarous punishments are allowed. For slight infractions of the rules it is sufficient in most cases to take from the delinquent a portion of the good time gained. Other cases are punished by confinement in the cell. This frequently produces the desired effect. In other cases it is no punishment at all. In fact, it is preferred to hard work. If in addition to simple confinement the convict is placed upon a short allowance of food, the desired effect is more likely to be produced after a time. But it will not be wondered at that among the eight to nine hundred convicts there are many who are incorrigibly evil. They care for no law. They are shrewd and crafty or defiant. Their influence is only evil. The fear of physical punishment alone restrains them. A few blows with a leather strap (the only instrument used in the prison for the purpose of punishment) always brings them to submission. It cannot by any possibility work any permanent injury; it leaves no marks upon the body, and yet the sensations it produces are sufficiently acute to produce the desired result. We are glad to say that this form of punishment is not of frequent occurrence. As an evidence of its good effects when administered, it is invariably true that, whenever a punishment of this kind is inflicted, the reports for bad conduct among the convicts at once diminish in number. In this way its influence for good is felt through the whole prison, and as the first effect of such punishment seems to wear off, the reports gradually increase until there is another infliction of the same punishment. If the laws especially provided that they could be punished for offences committed in prison by further imprisonment, it would do more to keep them in subordination than all things else."

While we agree with the inspectors that corporal punishment by the strap is not barbarous or injurious if rightly used, we cannot feel it safe to trust the judgment of human nature as usually found in prisons, and are convinced that re-trial and re-imprisonment is the only manner of keeping the vicious in subjection and under discipline. Additional imprisonment for each prison offence, lengthening the time indefinitely, would not be courted by even the worst criminal. The principle of, first, protecting the public from further depredations on the part of the offender; second, reforming the evil-doer, should not be transgressed—should always be the basis for all laws.

"The State has a duty to those men something beyond the act of temporarily confining them in prison. It should, as far as may be, fit them for and furnish them inducements to become honest citizens. And what is better calculated to do this than to compel them to form systematic habits of labor, and at the same time allow them to learn something of the work, whether mechanical or otherwise, at which they are placed? And it would seem that if the constitutional requirement that no mechanical trade shall be taught in the State Prison were exactly reversed, it might result, in many cases, in great good to individuals, and no injury whatever to the community at large."

But, it may be asked, shall presidents of banks, insurance companies, and other corporations—men who have lived by mental, not physical labor—be compelled to learn a trade, and do menial (as they would call it) labor? Why not? Would they be any the worse for learning how to earn an honest living, and, by a combination of practical experience and deductions therefrom, in a measure realize the enormity of their crime in having robbed hard-earned savings?

Should such an educated, shrewd villain, whose superior intelligence makes his crime all the more enormous, be punished less severely—for to him, like the hereditary drone, work is punishment—than the man whose mental capacity and education is inferior, whose surroundings in life are of a debasing tendency? Would not the learning of a trade cause him to respect honesty, and, by deposing that false pride which led him to his crime, replace it by a regard for labor which gains an honest livelihood and peace of conscience? The system whereof labor forms a part cannot be too highly valued, and we heartily agree that

"It is therefore thought wise to provide systematic labor for convicts, and hard labor is a part of the sentence of those convicted of State prison offences. The regular labor of the convict for a series of years tends at least to the formation of habits that may materially aid him at the expiration of his term, if he is really desirous of leading a new life."

#### THE YELLOW FEVER RELIEF FUND.

We are informed that the relief fund, contributed by the Medical Society of the County of New York and County of Kings, for the families of medical men which have suffered from the yellow fever, now amounts to three thousand dollars.

The Presidents of these medical organizations, notably Dr. Peters, have taken an active interest in the measure from the beginning, and have succeeded in systematizing a plan of relief which cannot fail to give satisfaction to the contributors of the fund, and speedily and discriminative relief to the sufferers. Dr. Mitchell, the Medical Director of the Howard Association at Memphis, has furnished some valuable information concerning the real needs of particular families within his jurisdiction, and in a private note to Dr. Peters has assured that gentleman that he will do

everything in his power to aid the charitable movement. The same may be said concerning information from other quarters. So far as is known at present, aside from those already mentioned, the Rhode Island Medical Society, the Ulster County Medical Society, and the District Medical Society of New Jersey, are the only ones which have organized committees of relief. We trust that there is no necessity for urging other Medical Societies to follow this example and do all in their power to swell the demands upon which during the coming winter will be very urgent. As we have previously advised, the bureau of distribution from this and adjoining States has been located in New York, the Medical Society of the County receiving the contributions from other similar organizations. We would suggest that it might be convenient for societies in the West and South to centralize their efforts in the same direction, as New York has possibly the best facilities for collecting information, and for receiving and disbursing charities of all descriptions. The officers of the County Society here would gladly do all in their power to such ends.

#### STATE EXAMINATIONS FOR DEGREE OF DOCTOR OF MEDICINE.

We begin to believe that the profession is gradually being educated to the necessity of a State examination for the degree of doctor of medicine. Of course there is a great deal of opposition to such a proposition on the part of the colleges, but the sentiment is gradually gaining ground that the proper way to advance the interests of scientific medicine and elevate the standard of medical education is to make the colleges educational institutions only. We have gone over the ground so often, and so frequently urged the practicability of the measure, that it is hardly necessary to allude to the fact even in passing, but we take occasion to do so for the purpose of introducing the following extract from an admirable editorial on the subject which appears in a recent number of the *Homoeopathic Times*.

"What we need is a non-sectarian Board of Examiners, in whom the profession and the community have confidence. Take away from our colleges the power of granting licenses to practice. Let them be simply educational institutions, their diplomas being only certificates of scholarship, and giving no power to practice medicine. It is a well-known fact that some of the colleges in our school do not represent the ability and standing of our profession; that they are under the control of cliques, whose aspiration for the public good is bounded by their own pockets, closing the doors of their institutions to all talent, unless it will slavishly repeat their shibboleth and form a harmonious part of their ring. With an unsectarian board of medical examiners, medical colleges, deprived of their power of granting licenses to practice, would stand for just what they are worth as educators. They would be obliged to compete with teachers all over the country, who would draw to their class-



rooms, with great advantage to the student, scores of those to whom now the only opening to their profession seems to lead through the class-rooms of medical colleges."

This is certainly preaching to the point, and receives our warmest commendation. There is a liberality about the proposition for an "unsectarian" board which means a great deal and looks in the direction of true progress.

#### MEDICAL ADVERTISING IN CHICAGO.

THE profession in Chicago are much exercised concerning the threatened discipline of certain prominent medical advertisers, whose certificate of a certain oculist is published in the local papers. There is certainly something ridiculous in the defence which the parties set up, and the show of injured innocence which they maintain as to any wrong which they have committed. We can scarcely imagine, however, a more flagrant offence against the spirit of the code than the signatures of these gentlemen, with their full hospital and college titles. The wrong-doing turns upon the advertisement of these professors as medical practitioners, and the unnecessary parade of their medical qualifications as distinguished certificate writers. We are not informed that the objectionable testimonials have been withdrawn, but, if not, the Medical Society of Chicago owe it to their professional brethren to see that such is done, and establish a precedent similar to that which now governs certificate writing for the daily papers in New York.

### Reviews and Notices of Books.

A PRACTICAL TREATISE ON THE DISEASES OF THE EAR. By D. B. ST. JOHN ROOSA, M.D. Fourth edition. William Wood & Co. 1878. 8vo. pp. 569.

THE appearance of a fourth edition of any book is hardly the occasion upon which to speak of its general merits; these will already have been discussed, and the review of such an edition is usually to inquire whether the work has kept pace with the advance of its subject; whether improvements have been introduced in its style or precept; and whether in the revision old errors have been allowed to remain. If any one has a right to speak authoritatively upon otological matters, it is Dr. Roosa, for it is he who, more than any one else, has made known to the American medical profession the general principles of treatment of aural diseases; and it is safe to say that no book upon any special subject has been more widely distributed throughout the country than has his admirable treatise. If this work be carefully studied, it will be seen that two main ideas run through the whole of what has been written: first, that a skilful treatment of ear-troubles involves a consummate knowledge of general medicine; second, that the measure of success is determined by the thoroughness which the practitioner brings to the examination of his cases, before applying his simple armamentarium.

It is carefully inculcated that nothing is to be done without a knowledge of what is required, and that

practice "in the dark" (tentative practice) is less justifiable in this branch of medicine than in any other.

The book is now substantially as it was in its first edition, except that the chapter on Diseases of the Internal Ear has been wholly rewritten, which, we think, constitutes an improvement.

We regret, however, not to see recorded the latest views with respect to the relations which the planes of direction of the semicircular canals have to their function of enabling us to appreciate movements in the various directions; and M. Cyon's idea of the relation of the otoliths in the ampullæ, and the fluid in the semicircular canals, to the periorbital muscles and visual vertigo comes from sufficiently high authority to have secured at least a notice.

That most intractable and distressing accompaniment of so many ear-troubles, "tinnitus," has little or no new light thrown upon it, although it is alluded to under at least eight different heads. The idea is still maintained that it is the result of an irritation of the acoustic nerve by the various morbid processes which affect the middle ear and labyrinth. It has lately been advanced by French authorities that tinnitus is due to trophic affections of the fifth nerve producing subjective sounds, precisely analogous to those visual sensations in which the peripheral organ of sight takes no part. We may also be sure that the seventh nerve takes no part in tinnitus, at least in some cases, inasmuch as the symptom often accompanies absolute nervous deafness.

We note that no account is given of the method recommended twelve years ago by Grüber, and lately revived by Weber-Liel, of washing out the tympana through the nostrils and Eustachian tubes, when the membranes are absent. Weber-Liel, for this, as for cleansing the naso-pharyngeal space, prefers weak solutions of bicarbonate of soda, instead of chloride of sodium, as recommended by Roosa and others, believing that the danger of exciting inflammation of the middle ear is thereby much lessened.

We must consider the directions for inflating the middle ear as incomplete, in not mentioning Dr. Tansley's method of causing the patient to blow forcibly through a small aperture between the lips, when the Politzer bag is used; and, above all, we should have been pleased to see described Weber's method of making the patient pronounce *hack, heck, hick, hock*, for the purpose of inflation, because in our experience this shuts off the pharyngeal from the posterior nasal space more effectually, and in a pleasanter way than the old swallowing process. It must have been an oversight, in Chapter III., not to describe the German "Trichter," or nasal endoscope, introduced into this country by Dr. Prout, of Brooklyn; and we think that iodoform, in substance or ethereal solution, has proven sufficiently useful in the treatment of aural discharges to have merited some mention.

A small number of minor errors appear here and there: for example, all of the heads and subheads of the chapters are given in English, except in a solitary instance, on page 254, where we find "*Otitis Media Catarrhalis*" without its English equivalent. This has stood through the four editions, as has also the prescription on page 305, where the iodine is directed to be dissolved in a "half per cent. solution of *iodine*," when iodide of potassium is intended. The table on page 349 still remains incorrect in its percentages, although slightly altered from previous editions; and we see on page 373, for the fourth time, the *Eiterbecher* of the Germans spelled "*iter-becher*."

We notice that Dr. Roosa adopts Hyrtl's etymology

of the word *cerumen*—*cera aurium*—but it would be difficult to trace its transformation from such an origin; instead of that, we would suggest the Greek *κρυός* and *κέλυξ*—a pellicle of wax.

The illustrations generally scarcely deserve to accompany a work of such unusually high merit; to the publishers, particularly, we would say that the caricatures on pages 95 and 96 are inexcusable. To the author we suggest that the novice will hardly learn from figure 13 in which direction the tympanic membrane is to be sought; a slight inclination of the patient's head to the right would remedy the defect.

It will be observed that of all the points which we have noticed, not one constitutes a defect sufficient to impair in any degree the value of the treatise. This remains the very best which has been offered to the profession, whether in America or England; and the debt of gratitude to the accomplished author will be cheerfully acknowledged for the part he has played in bringing aural surgery and medicine to their present high development.

**ANNUAL ADDRESS**, delivered before the Society of the Alumni of the Medical Department of the University of Pennsylvania, March 14, 1878, by W. A. B. Norcom, M.D., of North Carolina. Pamphlet, pp. 43. Collins, Printer.

THE aim of this scholarly address is to show that the chief obstacle to a proper appreciation by the public of the high character of our profession lies in defective medical education. This bane is presented in a striking light, and we cannot but hope that the author, who is a close reader and an acute thinker, will, by his earnest efforts, aid in hastening forward the day when medical colleges shall lose the character of commercial enterprises which they now possess, and assume their true function of opposing obstacles to the entrance of incompetence into our ranks. It is obvious that a recognition of the evil is being forcibly and widely impressed upon the minds of thinking men, and the effect of their utterances is manifest in the claim of the various colleges that their requirements for graduation have been raised. So long as colleges remain under private control, no material progress can be made; but when removed from the necessity of competition, as in the case of Harvard, University of Pennsylvania, Johns Hopkins University, and the University of Virginia, there will be no obstacle to their enforcing such requirements and such a curriculum as shall ensure the licensing of only competent men. Dr. Norcom, in this as in every department of medicine, shows that his views and information keep pace with the most advanced state of scientific progress.

**ELEMENTARY QUANTITATIVE ANALYSIS**. By ALEXANDER CLASSEN, Professor in the Royal Polytechnic School, Aix-la-Chapelle. Translated, with Additions, by EDGAR F. SMITH, A.M., Ph.D., Assistant in Analytical Chemistry in the Towne Scientific School, University of Pennsylvania. With thirty-six illustrations. Philadelphia: H. C. Lea. 1878. 12mo, pp. 328.

PROF. CLASSEN'S work, of which a translation is given us by Dr. Smith, is a small, practical, comprehensive and intelligible guide to practical elementary quantitative analysis, and is particularly well adapted to the wants of the beginner with laboratory work. The translator very truthfully says in his preface, that "the methods employed in the various determinations and separations are such as can be used at all times—care having been taken to exclude all that have but a very limited use, and such as have proved on trial to be devoid of practical merit."

## Reports of Societies.

### AMERICAN GYNECOLOGICAL SOCIETY.

#### THIRD ANNUAL MEETING.

*Held in Philadelphia September 25, 26, and 27, 1878.*

THURSDAY, SEPTEMBER 26TH—SECOND DAY—AFTER-NOON SESSION.

THE Society was called to order at 3 P.M. by Dr. Goodell.

#### DERMOID TUMORS OF THE OVARIES.

A paper upon the above subject was read by Dr. W. H. BYFORD, of Chicago. The histories of four cases were given. In all, the operation of ovariectomy was performed without difficulty, and recovery took place in each case. Dr. Byford defined a dermoid tumor to be a cyst formed anywhere in the body, the lining membrane of which was wholly or in part tegumentary in substance. As now understood, the presence of that structure alone justified the nomenclature. With reference to the theories regarding their origin, he remarked that they seemed to represent with some degree of exactness the physiology of the times in which they originated. In early times the theories were all vague and imaginary. The theories were classified under three divisions: 1. Those originating in the imagination alone; 2. Those which had for their basis the superstitions of the times in which they originated; and 3. The scientific theories. The theory which seemed by far the most satisfactory and scientific was the following: In the early period of embryonic development, by some accident or imperfection of formation, an indentation of the blastoderm somehow existed. That minute depression was enclosed by the approximation of its blastodermic margin, and became an isolated cavity, and the growth and development of the embryo were accomplished notwithstanding that accident to its envelope. The depression thus formed involved perhaps both layers of the blastodermic membrane, but the external layer became the lining membrane of the cavity, and was completely cut off from the rest of the blastodermic surface and invaginated with all its essential structures and processes of organization; all its products therefore must be retained in the cavity. The contents of that cavity corresponded in miniature with what the formation might have been if the displacement had not occurred. In the further development of the embryo the portion of the blastoderm covering that adventitious cavity developed its tissues and organs in the ordinary way, and thus enclosed it in the body by the structures usually found to cover it. The theory, it was believed, served to explain why these hairy tumors were found in the fœtus, child, virgin, matron, or male, and with equal plausibility why they might exist in any part of the body. At present it could not be asserted that these tumors were not as common in the male as in the female.

The paper was discussed by Dr. NOEGGERATH, of New York.

Dr. W. L. RICHARDSON, of Boston, then read a paper entitled

#### A CONTRIBUTION TO THE STUDY OF THE TREATMENT OF THE ACUTE PARENCHYMATOUS NEPHRITIS OF PREGNANCY.

The object of the paper was to call attention to the necessity of examining the daily quantity of urine



passed, as well as the quality of that secretion; the latter showing the presence of a threatened danger, the former revealing the true extent of the danger. The writer concluded the paper by advising that from time to time the urine of a pregnant woman be examined with a view of early detecting the presence of an acute parenchymatous nephritis. When such a disease was shown to exist, a record of the daily quantity of urine secreted should be kept. If the quantity fell largely below the normal, we should endeavor by proper treatment to re-establish the impaired function of the kidneys, or, failing in that, to supplement their loss of action by the increased action of other excretory organs. If the quantity still diminished, the induction of premature labor at once was recommended.

The paper being before the Society for discussion—

DR. T. G. THOMAS, of New York, remarked that he had listened with interest to the paper because it expressed his own individual views upon the subject. He regarded it as a serious error when a physician thought it necessary to produce premature labor in every case of albuminuria. In the treatment of these cases he regarded it as important to keep up the excessive action of the skin, and for that purpose pilocarpin was suggested as a most reliable diaphoretic.

The discussion was continued by Drs. Atlee, of Lancaster; Barker, of New York; and Lyman, of Boston.

DRS. BARKER and ALTEE made special reference to the lancet, and thought it could be used with benefit in the treatment of threatened puerperal convulsions.

The Society then adjourned to meet on the following day at 10 A.M.

#### FRIDAY, SEPTEMBER 27TH—THIRD DAY—MORNING SESSION.

The Society was called to order at 10 A.M., Dr. For-  
dyce Barker, of New York, in the chair.

The following officers were announced as having been elected for the ensuing year:

*For President*—Dr. T. Gaillard Thomas, of New York.

*For Vice-Presidents*—Dr. D. H. Storer, of Boston, and Dr. H. P. C. Wilson, of Baltimore.

*For Secretary*—Dr. James R. Chadwick, of Boston.

*For Treasurer*—Dr. Paul F. Mundé, of New York.

*For Council*—Dr. A. H. Smith, of Philadelphia; Dr. G. J. Engelmann, of St. Louis; Dr. John Byrne, of Brooklyn, and Dr. T. A. Emmet, of New York.

*For Honorary Fellows*—Dr. J. S. Billings, U. S. A., Washington, D. C., and Dr. J. Matthews Duncan, of London.

*For Resident Fellow*—Dr. Nathan Bozeman, of New York.

It was decided to hold the next meeting in Baltimore, commencing on the third Wednesday of September, 1879.

DR. S. C. BUSEY, of Washington, then read a paper entitled

#### ALTERNATING ANTERIOR AND POSTERIOR VERSION OF THE UTERUS.

Dr. Busey had selected the above title because it expressed the distinctive features of a case in which the organ, when unsupported by any mechanical means, was always found in the position either of complete anteversion or retroversion. He thought the condition was due to an elongated and cartilaginous cervix. He

suggested three methods of treatment: 1. Amputation of the cervix; 2. Organic fixation of the cervix; and 3. Mechanical fixation of the cervix.

DR. H. J. GARRIGUES, of Brooklyn, followed with a paper on

#### GASTRO-ELYTROTONY.

He first gave a brief outline of the history of the operation as performed by Joerg, Ritgen, Baudelocque, and Skene, and as it was revived with an important modification by Dr. Thomas, of New York, in 1870. Dr. Garrigues proposed to make the first opening in the vagina with the galvano or other form of cautery. He urged the propriety of the operation, and thought it should always be adopted instead of craniotomy when the conjugate diameter was two and a half inches or less, and also instead of bad cases of embryotomy. In certain cases the operation would always be excluded. It could not be repeated upon the same side. It was impossible when the head was immovably wedged in the pelvis. It was contraindicated in cases of atresia or coarctation of the vagina, of obstruction of the vagina by a solid tumor, or when the obstruction was situated in the uterus.

DR. BARKER, of New York, regarded the subject as a very important one, because every practitioner might be called upon to decide whether gastro-elytrotomy was to be performed in preference to Cesarean section or craniotomy. He therefore called upon Dr. Thomas, of New York, to open the discussion.

DR. THOMAS referred in detail to the steps by which he was first led to perform the operation, and related the history of his first case.

He had not experienced any difficulty from hemorrhage; neither had Dr. Skene, who had operated three times. He regarded the success of the operation as already sufficient to warrant a trial of it in cases in which Cesarean section or craniotomy had been proposed. With reference to fistulae in the bladder, they inevitably closed. Cellulitis was not very likely to occur if an opening was left so that antiseptic injections could be freely used. A good operation could not be kept down by mere argument, as had been shown in the case of ovariotomy.

DR. BYFORD, of Chicago, thought that opening the peritoneum of the pregnant woman was one of the very greatest of dangers, because of the increased vascularity of the tissue at that time.

Previous to the present discussion he had regarded the danger from hemorrhage as very great, and also that there was great difficulty in getting into the pelvic cavity.

DR. CAMPBELL, of Augusta, thought that opening the peritoneal cavity at the present time was not so dangerous as was generally supposed.

DR. BOZEMAN, of New York, directed attention to a point in the surgical anatomy of the parts invaded by the operation, and regarded the relative position of the ureter as exceedingly important. He thought it quite impossible to effect an entrance into the vagina without involving the ureter, and believed that in the cases in which bladder trouble appeared after the operation was performed, it was caused by accident to the ureter, and not to the bladder.

DR. GARRIGUES replied that the point to which Dr. Bozeman had alluded had not escaped his attention, and he had reached the conclusion that the operation could be performed without injury to the ureter, because the opening was made below and parallel to the tube. If the first incision was made parallel to the brim of the pelvis, it would be parallel to the mouth of the uterus and also to the ureter.

## THE PENDULUM OR OSCILLATORY MOVEMENT OF THE OBSTETRIC FORCEPS.

Dr. A. H. SMITH, of Philadelphia, read a paper upon the above subject, and took the position that, for the safety of the mother and the child, the obstetric forceps should be kept in the median line, and should not receive any lateral or pendulum motion. Dr. Smith regarded the leverage power of the forceps as a most dangerous delusion, and that as an aid to the traction efforts of the forceps it had no foundation in fact.

The leverage motion was liable to injure the tissues of the mother and of the child.

Dr. Smith gave a mathematical demonstration of the fact that every sway of the handles of the forceps produced a change in the plane presenting coincidentally with the plane of the pelvis, and that the farther the handles were removed from the median line the longer was the diameter presented for passage through the pelvis. He also believed that the leverage movement, so far from being an economical expenditure of force, was an absolute waste of power; that it could not advance the head, but simply expended itself in confusing the tissues of the pelvis. Leverage with traction had the same effect, only to a greater degree.

The arguments in favor of direct traction were:

1. That it imitated the operation of nature.
2. That it expended economically the entire forces in the direction of the motion, in harmony with a well-recognized principle in mechanics.

The following conclusions were reached by the author of the paper:

1. That the pendulum movements were in direct violation of the teachings of nature.
2. That they were absolutely useless as an aid to traction.
3. That any virtue they had was in stimulating uterine contractions, which themselves acted independently of them.
4. That so far from diminishing friction, they increased it.
5. That they tended to do injury to the pelvic tissues wherever they were practised, and so far from being especially useful in difficult cases of labor, the greater the difficulty of the case, the greater the danger to the tissues.
6. That, instead of being an economy, they were a waste of forces.

The discussion of Dr. Smith's paper was postponed until the afternoon session.

The Society adjourned to meet at 3 P.M.

## THIRD DAY—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by Dr. Goodell.

The discussion of Dr. Smith's paper being the first business in order—

Dr. J. P. WHITE, of Buffalo, remarked that the paper by Dr. Smith should lead us to consider whether we did not do injury by using the forceps too much as a lever. Traction was the chief reliance in the instrument, and compression was of some avail, although of less importance than had sometimes been supposed.

Dr. BARKER, of New York, thought there was a fallacy in the idea advanced by Dr. Smith, that we should never carry one extreme of the biparietal or bitemporal diameter along the cavity of the pelvis any faster than the other.

Dr. STORRIE, of Boston, thought it very important to know exactly the amount of compression which was being applied to the child's head. His rule had been to make traction without lateral movement, but there were cases in which there might be slight deviation from the rule.

Dr. PENROSE, of Philadelphia, had been guided by the teachings of Dr. Hodge in the use of the forceps, and regarded them as compressors, as tractors, and as levers.

Dr. THOMAS, of New York, thought the forceps were *rotators* as well as tractors, compressors, and levers. The instrument, however, should be used always as a tractor, and as a lever only when it must be so employed. The leverage movement, he thought, was beneficial in cases in which there was an edematous condition of the vagina. He thought the lateral movement should not be excluded altogether.

Dr. GOODELL, of Philadelphia, thought that telescopically Dr. Smith's views were correct, but that microscopically they were not.

With men who were familiar with the use of the forceps, the lateral movement was a mechanical advantage, and could be resorted to with safety; but in the hands of a tyro it certainly increased the danger to the mother. He discussed at some length the mechanical principles involved in Dr. Smith's paper.

Dr. SMITH, in closing the discussion, remarked, it was allowed that compression of the child's head was produced by the lateral movement of the handles of the forceps, hence its advantage; but if such was the case, why not make such compression by the blades of the forceps, and save the tissues of the mother from the danger attending the lateral movement?

He believed that compression without traction was preferable to leverage without traction. If compression was made just sufficient to diminish the friction, and the handles of the forceps were kept in the median line, the contractions of the uterus would crowd the head downward.

It seemed that all agreed there was danger in the lever power of the forceps, and yet all the gentlemen wished to have a little of that danger. If dangerous at all, why use it?

After the close of the discussion, Dr. H. F. CAMPBELL, of Georgia, read a paper on

## RECTAL ALIMENTATION IN THE NAUSEA AND INANITION OF PREGNANCY.

The following papers were read by title:

Three Cases of Ruptured Uterus, by Dr. T. Parvin, of Indianapolis.

Leucorrhœa Considered in Relation to its Constitutional Causes and its Constitutional Effects, by Dr. Fordyce Barker, of New York.

Treatment of Pelvic Indurations and Effusions, by Dr. E. Van de Warker, of Syracuse, N. Y.

A New Instrument for the Reduction of an Inverted Uterus, by Dr. J. Byrne, of Brooklyn.

On Some Points Connected with the Treatment of Sterility, by Dr. A. Reeves Jackson.

Improved Tents, by Dr. James P. White.

A Case of Extreme Anteversion at the End of Gestation; with Remarks on the Treatment. Also, The Early Delivery of the Placenta when Previa, with a Case of Spontaneous Detachment of that Organ without Hemorrhage, by Dr. I. E. Taylor, of New York.

A Study of Douglas' Pouch, by Dr. J. R. Chadwick, of Boston.

Dr. GOODELL then delivered the closing address, and declared the Society adjourned to meet in Baltimore on the third Wednesday of September, 1879.



## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 29 to October 5, 1878.*

HEIZMANN, C. L., Capt. and Asst. Surgeon. Assigned to duty at Fort Vancouver, W. T. S. O. 115, Dept. of the Columbia, Sept. 14, 1878.

GRAY, W. W., 1st Lieut. and Asst. Surgeon. When relieved by Asst. Surgeon Heizmann, to report for duty at Fort Colville, W. T. S. O. 115, C. S., Dept. of the Columbia.

CHERBONNIER, A. V., Capt. and Medical Storekeeper. Granted leave of absence for one month. S. O. 213, A. G. O., October 3, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 5, 1878.

| Week Ending     | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|-----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Sept. 29, 1878. | 0             | 17             | 28             | 0                          | 1        | 18          | 0          | 0             |
| Oct. 5, 1878.   | 0             | 30             | 52             | 0                          | 1        | 31          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., Oct. 5, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during past week under the National Quarantine Act:

*New Orleans.*—During the past week there were 1,754 cases of yellow fever and 360 deaths. Total cases to yesterday afternoon, 10,218; total deaths, 3,060.

*Southwest Pass, La.*—5 deaths from yellow fever occurred during the past week.

*Morgan City, La.*—For the week ending yesterday evening there were 155 new cases of yellow fever and 18 deaths. Total cases, 300; deaths, 48.

*Baton Rouge, La.*—During the week ending 9 o'clock yesterday morning there were 524 new cases of yellow fever and 32 deaths. Total cases, 1,417; deaths, 78.

*Paquemine, La.*—242 cases of yellow fever and 10 deaths occurred during the week ending Sept. 21st. Total cases to that date, 547; deaths, 63.

*Pass Christian, Miss.*—There were 26 cases of yellow fever and 3 deaths during last week. Total cases, 59; deaths, 6.

*Mississippi City, Miss.*—12 cases of yellow fever and 2 deaths occurred last week. Total cases to yesterday evening, 20; deaths, 3.

*Canton, Miss.*—Total cases of yellow fever to the 4th inst., 720; total deaths, 113. Dr. Semmes reports fever milder and material nearly exhausted.

*Ocean Springs, Miss.*—There were 18 cases of yellow fever and 4 deaths during the week ending yesterday. Total cases, 78; deaths, 22.

*Pascagoula, Miss.*—One death from yellow fever at quarantine last week.

*Mobile, Ala.*—For the week ending yesterday evening there were 13 cases of yellow fever and 6 deaths.

Total cases, 30; deaths, 17. Dr. Cochran reports yellow fever at Bonsecours and Fish River.

*Vicksburg, Miss.*—There were 70 deaths from yellow fever during the week ending yesterday evening. Total deaths, 849.

*Memphis, Tenn.*—199 deaths from yellow fever occurred during the week ending the 3d inst. Total deaths to that date, 2,627.

*Brownsville, Tenn.*—During the past week there were 77 cases of yellow fever and 20 deaths. Total cases to yesterday evening, 274; deaths, 86.

*Grand Junction, Tenn.*—The first case of yellow fever (refugee) occurred August 12th. Total cases to yesterday evening, 120; deaths, 52.

*Chattanooga, Tenn.*—43 cases of yellow fever and 18 deaths for the week ending yesterday evening. Total cases, 84; deaths, 44.

*Louisville, Ky.*—During the week ending yesterday evening there were seven cases of yellow fever and 5 deaths. Of these, 5 cases and 3 deaths were among the inhabitants residing near the Louisville and Nashville depot. No alarm exists, as it is believed there that the fever will not spread beyond its present narrow limits. The small number of cases appear to warrant that belief. Total cases to date, 102, mostly refugees, as previously reported; total deaths, 41.

*Nashville, Tenn.*—6 deaths from yellow fever to yesterday evening, all refugees.

*St. Louis, Mo.*—2 deaths from yellow fever at quarantine since last report. None in the city. Total deaths at quarantine and city, 41.

*Cairo, Ill.*—3 cases of yellow fever and 1 death since Oct. 2d. Information covering the first part of last week not definite enough to state here.

*Cincinnati, Ohio.*—From Sept. 28th to Oct. 2d there were two cases of yellow fever, 1 a refugee, and 1 death.

*Grenada, Miss.*—18 cases of yellow fever under treatment. Number of deaths not definitely ascertained.

*Water Valley, Miss.*—For the week ending Sept. 28th there were 18 cases of yellow fever and 10 deaths. Total cases to that date, 39; deaths, 17.

*Key West, Fla.*—No cases of yellow fever or deaths from Sept. 21st to Oct. 4th.

*Havana, Cuba.*—36 deaths from yellow fever and 6 from small-pox for the week ending Sept 28th.

The British iron steamship, "Ben Vairlish," from New Orleans, Sept. 20th, bound for Rotterdam, put into the Norfolk quarantine, Oct. 1st, leaking badly, having been on the Florida reefs 36 hours. One death from yellow fever occurred *en route*, and there were 3 cases on arrival at quarantine, 2 of which were convalescent.

*St. Thomas, West Indies.*—Advices to Sept. 24th report 2 cases of yellow fever in that city, one resulting in death, Sept. 23d.

Advices from Gibraltar to Sept 10th bring favorable reports from *Morocco*, where cholera has prevailed in the cities of *Fez* and *Mekinez*. The Governor of Malta has ordered that vessels arriving from Morocco without passengers be quarantined twenty-one days. Vessels with passengers, among whom cholera or choleraic diarrhoea has occurred, are not allowed to enter the harbor.

*Calcutta.*—11 deaths from cholera, week ending Aug. 3d.

*Bombay.*—31 deaths from cholera, week ending Aug. 13th.

There are many places in Louisiana, Mississippi, and Tennessee where the yellow fever prevails, but they are not named in this bulletin, for the reason

that definite and reliable information of the number of cases and deaths could not be obtained.—JOHN M. WOODWORTH, *Surgeon-General U. S. Marine Hospital Service.*

**LIST OF PHYSICIANS WHO HAVE DIED OF YELLOW FEVER IN MEMPHIS.**—Dr. R. W. Mitchell, Medical Director, Howard Corps, Memphis, Tennessee, has furnished the following list of physicians who have died in Memphis since the commencement of the present epidemic up to Oct. 1, 1878: Armstrong, J. W., Memphis, Tennessee; Burcham, Robert, Columbus, Ohio; Bond, T. W., Brownsville, Tenn.; Bankson, T. S., Stevenson, Alabama; Chevis, L. A., Savannah, Georgia; Dawson, G. R., Memphis, Tennessee; Forbes, J. G., Round Rock, Texas; Gorrell, J. O. G., Port Wayne, Indiana; Harlan, L. B., Hot Springs, Arkansas; Hodges, W. R., Memphis, Tenn.; Hicks, Jno. B., Murfreesboro, Tenn.; Meade, W. C., Memphis, Tenn.; McKim, J. W., St. Louis, Missouri; McGregor, Thos. H., Tipton County, Tenn.; Menes, T. W., Nashville, Tenn.; Nugent, P. C., St. Louis, Missouri; Pierce, Hiram M., Cincinnati, Ohio; Renner, J. G., Indianapolis, Indiana; Turck, P., Cincinnati, Ohio; Tate, R. H., Cincinnati, Ohio; Williams, R. B., Woodburn, Kentucky; Robbins, N. H., Memphis, Tenn.; Earley, E. T., Little Rock, Arkansas; White, J. M. S., Macon, Georgia. The above were all members of the Howard Volunteer Medical Corps. Dr. B. W. Arent, Dr. Paul Otey, Dr. John H. Erskine, Dr. J. P. Watson, Dr. Jno. D. Woodward, resident physicians of Memphis.

Dr. HENRY G. DAVIS, formerly of this city, a gentleman who has done so much to improve the treatment of diseases of the joints, of fractures, dislocations, and deformities, has established a private hospital at Westboro, Miss., with accommodations for seventy-five patients. The institution is to be devoted to the treatment of chronic diseases, particularly consumption.

**MEDICAL SOCIETY OF VIRGINIA.**—The ninth annual session of this Society will commence in the city of Richmond, Va., at 7½ p.m., Tuesday, October 22, 1878.

Fellows and delegates, on entering the hall, are requested to register their names and post-office addresses in full in the ledger, which will be found upon the table of the Recording Secretary.

**GOOD EFFECTS OF LIGATION OF THE THIGHS IN OBSTINATE EPISTAXIS.**—M. Blondeau reports the case of a gouty subject, who had an attack of epistaxis, in which nearly two quarts of blood were lost, and which ceased only on the occurrence of syncope. Eight days later a second attack occurred. Injections of cold water containing perchloride of iron were first tried in vain, and a ligature was then applied tightly to the middle of the thigh. The hemorrhage ceased almost immediately, but reappeared on the following day shortly after the ligature had been removed. The ligature was again applied with equal success, but its removal was again followed by recurrence of the epistaxis. The treatment was, however, persevered in, and finally, after several days, the hemorrhage ceased completely.—*Gazette des Hôpitaux.*

**TREATMENT OF GASTRIC ULCER.**—Dr. C. Hertzka, of Pesth, has employed chloral hydrate with excellent results in the treatment of ulcer of the stomach. He was led to try the drug because, in addition to its hypnotic and anæsthetic powers, it has been demonstrated that it coagulates blood, favors the healing of ulcers generally, acts as a disinfectant, and, in particular, prevents the lactic acid fermentation, and finally, retards the functional action of the stomach and lessens the appetite. To a man, 48 years of age,

who had been treated without success by the most various remedies, he administered every evening from forty-five to sixty grains of chloral largely diluted. This quantity was administered in three doses, at intervals of two hours, and at the same time Carlsbad water was freely given. On the third day the pains and vomiting ceased, and did not again recur. On the eighth day the patient was able to leave off the morphine injections, to which he had become accustomed. The chloral caused a severe burning sensation in the stomach, and produced a state of nervous depression, which ceased as soon as the treatment was discontinued (after fourteen days). Subsequently a feeling of burning and constriction in the œsophagus appeared at irregular intervals. Hertzka ascribed this feeling to the traction on the nerve-fibres by the contracting cicatrix in the stomach. For its relief subcutaneous injections of morphine had to be employed.

In a second case the chloral caused burning and vomiting. To prevent these unpleasant symptoms a morphine injection was administered two hours before the chloral, and large quantities of Carlsbad water were given after it. In future cases, Dr. Hertzka proposes to use smaller doses more frequently repeated.—*Centralblatt für med. Wissen.*

**STRANGULATED HERNIA REDUCED BY ESMARCH'S BANDAGE.**—M. Chapelle, of Paris, reports two cases of strangulated hernia that were reduced by means of Esmarch's bandage, after all other means of reduction had failed. The first case was one of scrotal hernia in a patient 72 years of age, and the other was a femoral hernia in a woman.—*L'Année Médicale.*

**DEATH OF THE OLDEST MAN IN EUROPE.**—The oldest man in Kurhessen, and undoubtedly, also, on the entire continent, died recently in the village of Kirchbracht. He was a peasant, by name Florinn Weissmuth, and is said to have been 148 years old. His descendants number two sons, who are themselves very aged, sixteen grandchildren, and forty-three grown up great-grandchildren.

**THE ROLL OF HONOR.**—The following are additional names of physicians who died while in attendance on yellow fever patients:

*Memphis, Tenn.*—Dr. T. W. Meares, volunteer from Nashville, Tenn.; Dr. J. B. Hicks, volunteer from Murfreesboro, Tenn.; Dr. J. S. Bankson, volunteer from Stevenson, Ala.; Dr. R. H. Tate, volunteer from Cincinnati, O.; Dr. W. J. Armstrong, of Memphis. Sept. 30th, Dr. Edward Tandy Easley, volunteer from Little Rock, Ark. Oct. 6th, Dr. William R. Lowry, of Memphis; Dr. R. F. Brown, Secretary of Board of Health. Oct. 7th, Dr. J. F. Sample, volunteer from Austin, Miss.

*Vicksburg, Miss.*—Oct. 6th, Dr. Newman. Oct. 7th, Dr. M. Blackburn, Dr. Birdsong.

*Tangipahoa, La.*—Sept. 18th, Dr. H. A. Swasey.

*Grand Junction, Tenn.*—Oct. 1st, Dr. Joseph H. Prewitt.

*Greenville, Miss.*—Dr. Stafford, Dr. V. F. P. Alexander.

*Port Gibson, Miss.*—Oct. 1st, Dr. J. G. Strobbridge, Dr. W. D. Spratt.

Previously reported, 63. Total to date, 81.

**CHLORATE OF POTASH IN THE TREATMENT OF KERATITIS.**—M. Zuaglino, of Pavia, employs insufflations of powdered chlorate of potash with success, in the treatment of all the superficial and deep parenchymatous troubles, caused by the different forms of keratitis.—*Lyon Medical.*



## Original Lectures.

### LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

By E. C. SEGUIN, M.D.,

CLINICAL PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

#### LECTURE VII.

SUMMARY:—ANATOMY AND LESIONS OF THE CORTEX OF THE BRAIN.—THE CHIEF CORTICAL MOTOR CENTRES, AND BROCA'S SPEECH CENTRE.—LOCALIZED LESIONS OF THE CORTEX CEREBRI; DIFFUSED LESIONS OF THE SAME.

GENTLEMEN:—The cerebral cortex is an immense spread-out ganglion, whose functions are not yet fully or exactly known. Like all ganglionic masses, it is composed of ganglion-cells, nerve-fibres, blood-vessels, and neuroglia. Its ganglion-cells are generally pyramidal in shape, the apex of the pyramids being turned outward or peripherally. They vary very much in size and in precise shape, the largest occurring in convolutions of the median parts of the hemispheres.

This gray cortical layer becoming folded through the process of growth, ultimately presents irregular swellings and depressions of its surface. The swellings are called convolutions or gyri; the depressions, fissures or sulci. Some of the sulci are very deep, and receive special names. It should not be forgotten that at the bottom of every sulcus is formed by the same ganglionic gray matter as the prominent parts or gyri.

These gyri are so grouped and separated by large sulci, that we are now enabled to make a successful topographical study of the apparently confused mass of convolutions; and in my brief description of the cortex cerebri I shall almost follow Ecker's classification of its parts. Thus in each hemisphere we have four lobes or groups of gyri, viz., the frontal, parietal, temporal, and occipital lobes. Separating these lobes are three large and constant fissures: the fissure of Sylvius, between the frontal and temporal lobes; the fissure of Rolando (or central f.), separating the frontal and parietal lobes; and the occipito-parietal fissure in the inner face of the hemisphere, limiting the occipital and parietal lobes.

Besides, we recognize four lobules, viz., lobulus centralis (island of Reil at the bottom of the fissure of Sylvius), lobulus paracentralis, lobulus cuneus, and lobulus quadratus, on the inner surface of the hemisphere. The paracentral lobule is made up almost wholly of the upper (inner) ends of the ascending frontal and ascending frontal convolutions as they dip into the great longitudinal fissure.

For a full account of these parts I would refer you to Ecker's monograph on the cerebral convolutions, to Ferrier's work on the functions of the brain, and to the latest edition of "Dalton's Physiology." A few of the convolutions in these lobes and lobules are of importance in the study of localization, and I must briefly describe them.

First, the third and ascending frontal convolutions. The former of these (f. 3, Fig. 9) constitutes the lower tier of gyri in the external aspect of the frontal lobes, and forms the antero-superior lip of the fissure of Sylvi-

us. Its posterior part and its continuation into the island of Reil certainly have a very close connection with the function of written and spoken speech. The ascending frontal gyrus (A, Fig. 9) forms the posterior limit of the frontal lobe, and lies against the fissure of Rolando. Ecker calls it the anterior central convolution, but in common with Prof. Charcot and his pupils, I prefer the former designation. Immediately behind the fissure of Rolando, extending almost vertically, is the ascending parietal gyrus, or the posterior central convolution of Ecker. These two gyri, the ascending frontal and parietal, are intimately connected with movements of the face, arm, and leg; so-called centres for the face existing in the lower ascending frontal, centres for the upper extremities being found in its middle portions and in the ascending parietal gyrus; while the centres for the movements of the lower limbs are in the upper (inner) extremities of both these gyri, and in the next parietal convolution near the median fissure, viz., the superior parietal (p. 1, Fig. 9).

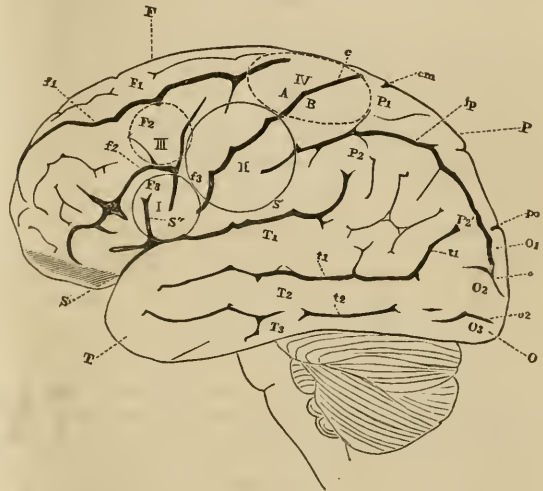


FIG. 9.

Modified from Ferrier: letters and figures the same.—S, Fissure of Sylvius; c, Fissure of Rolando; po, Parieto-occipital fissure. A, Ascending frontal gyrus; B, Ascending parietal gyrus; F<sub>3</sub>, Third frontal gyrus; P<sub>2</sub>', Gyrus angularis. Circle I., Seat of lesions which (on the left side) cause aphasia. Circle II., Seat of lesions which convulse or paralyze the upper extremity of the opposite side. Dotted Circle III., Seat of lesions which probably convulse or paralyze the face on the opposite side. Dotted Oval IV., Seat of lesions which probably convulse or paralyze the lower extremity of the opposite side. These districts receive their blood-supply chiefly from the middle cerebral artery.

The last gyrus of clinical importance is the next below the inferior parietal and its extension toward the occipital lobe, the angular gyrus, so-called (P<sub>2</sub>' Fig 9). Some recent clinical and post mortem facts would seem to connect it with movements of the eyelids and upper face. Besides, the paracentral lobule is of importance to us, because we know that its destruction is followed by descending degeneration.

The cerebral convolutions are supplied with blood by branches of the anterior, middle, and posterior cerebral arteries, and an exact knowledge of the distribution of these trunks and their ramification is of the utmost importance in the study of localization of lesions, inasmuch as one of the most common pathological processes by which destruction of convolutions is caused, is embolism, or plugging of one of these arteries.

In general terms, the anterior cerebral artery supplies the inner face of the hemisphere as far back as

\* Delivered at the College of Physicians and Surgeons during the months of December, 1877, and January, 1878.

the occipito-parietal fissure; the first, second, and (very partially) the ascending frontal convolutions.

The middle cerebral artery, or the Sylvian artery, is the most important physiologically, as it supplies all the convolutions mentioned above as concerned in the production of voluntary movements, viz., the third and ascending frontal, ascending, and first and second parietal convolutions. Easily recognized branches of the middle cerebral artery furnish blood to the third frontal (first branch in the fissure of Sylvius), to the ascending frontal, to the ascending parietal; a fourth branch extends as far as the angular gyrus, and a fifth supplies the first temporal convolution.

The posterior cerebral artery supplies the remainder of the temporal lobe and the whole of the occipital.

It might not quite be out of place to state here that, according to Charcot and Duret, the basal ganglia of the brain receive their blood through small branches which leave the great arteries very near the origin of the circle of Willis. The anterior part of the nucleus caudatus is supplied by arterioles derived from the anterior communicating artery, and from the first portion of the anterior cerebral artery. The nucleus lenticularis and the anterior part of the thalamus opticus are vascularized by branches of the trunk of the middle cerebral artery before it enters the Sylvian fissure. The larger part of the optic thalamus is supplied by vessels coming from the second portion of the posterior cerebral artery beyond the circle of Willis. Finally the inner aspects of the thalamus and the walls of the third ventricle receive branches from the posterior communicating artery, and from the first portion of the posterior cerebral artery within the circle of Willis.

To return to the arteries of the cortex. Ramifying in the pia covering the convolutions, they penetrate the nervous tissue in a peculiar manner, in the shape of long and straight branches, which supply the various layers of the cortex by means of horizontal branches, and ultimately, in small numbers, and greatly reduced in size, reach the white substances. A most important peculiarity in the superficial and deep cortical circulations is the absence of anastomosis between arteries of any great size. As to the exact amount of anastomosis there is a difference of opinion between the two original observers in this matter—both equally competent—Duret, of Paris, and Heubner, of Leipzig. The former maintains, and pathology supports him, that there is next to no anastomotic circulation upon or in the cortex (except through capillaries), while Heubner thinks that considerable branches of the great cerebral vessels open into one another upon the surface of the brain. The importance of this point for the prognosis of embolism of the cerebral arteries is enormous, and for my part I would say that I am disposed to consider Duret's statement as more applicable to practice.

I now pass to a very short account of the physiology of the cortex. My statements upon this matter will be all the briefer because an excellent and full account of the physiology of the cerebrum is accessible to all of you in Prof. Dalton's "Treatise on Physiology." Dr. Dalton himself has taken an honorable part in the researches which have, in the last five years, revealed unsuspected properties in the cortex of the brain.

*First.* We now know, since the experimental researches of Fritsch and Hitzig (1870), and of Ferrier (1873), that the cortex of the brain is excitable; i. e., that galvanization or faradization of the cortex produces muscular movements in the body and limbs. This fact, standing out in direct contradiction to the teaching of all physiologists from Magendie and Müller, is a monumental acquisition to biological science.

*Second.* Very numerous researches by Hitzig, Ferrier, and a host of others, appear to have established beyond question that a certain relation exists between well defined portions of the cortex of one hemisphere and limited muscular groups (almost individual muscles) in the opposite half of the body. The areas of convolutions whose irritation by electricity is followed by definite movements of peripheral parts have been denominated motor centres, or psycho-motor centres; and a large number of these centres have been determined by Prof. Ferrier and by Prof. Hitzig, upon the brains of dogs, cats, and living monkeys whose brains bear a certain resemblance to the cerebrum of man. While knowing of a few opposing experiments which would seem to show that there is no constant relation between the spot irritated and the resultant movement, I am bound, by the weight of evidence and by the wonderful accord between the researches of various experimenters, to accept the facts as stated above.

*Third.* The excitable district of the brain is its median group of convolutions, including (as sketched upon a human brain, after experiments upon monkeys) the second, third, and ascending frontal convolutions, the ascending and first parietal convolutions. This excitable district or zone includes, as you perceive, gyri which receive their blood-supply by branches of the middle cerebral artery, with the exception of the second frontal gyrus. As my chief object is not physiological teaching, I prefer simply to enumerate the cortical centres as laid down by Ferrier, not encumbering the diagram with a representation of them.

On the posterior extremity of the third frontal gyrus, near the fissure of Sylvius, is a centre for the movements of the lips and tongue (a speech-centre according to the teaching of pathology); this is numbered 9 and 10 on Ferrier's plate. Next in order, upon the lower part of the ascending frontal convolution are centres for movements of the elevators and depressors of the angle of the mouth; numbered 8 and 7. Still higher on this gyrus is a centre for movements of the forearm and hand; numbered 6. Upon the upper two-thirds of the ascending parietal convolution are several centres for complex movements of the hand and wrist; designated by Ferrier, *a, b, c, d*. Much farther forward, upon the hemisphere near the great longitudinal fissure, is an extensive region embracing the posterior parts of the first and second frontal gyri, governing lateral movements of the head, elevation of the eyelids, and dilatation of the pupil; numbered 12. Immediately behind this, near the longitudinal fissure, upon the posterior extremity of the first frontal convolution, is a centre for extension and forward movements of the hand and arm; numbered 5. The posterior (inner) ends of the ascending frontal and ascending parietal convolutions contain centres (not clearly differentiated) for complex movements of the arms and legs together; numbered 2, 3, and 4 on Ferrier's plate. Finally, behind these on the superior parietal lobule is a centre for movements of the leg and foot; numbered 1.

The sensory centres of Ferrier occupy various parts of the inferior parietal lobule, the gyrus angularis, the second occipital, and first temporal convolutions. Although the experiments of various observers make it exceedingly probable that these inferior and posterior portions of the hemisphere are connected with general and special sensory functions, yet, as human pathology has so far thrown no light upon these questions, I shall hereafter confine myself to the study of the motor districts of the convolutions.

Not to weary you by the citation of the now very numerous cases in which localized cortical lesions,



as tumors, abscesses, clots, softening, pressure-effects from bone or thickened meninges, have given rise to definite symptoms, in close or even almost exact agreement with the data obtained by faradizing the cortex, I shall state in a general manner the tendency of these recent clinical and post-mortem studies.

In the first place, it appears almost absolutely certain that in man a lesion involving the posterior part of the third frontal convolution (on the left side usually) causes aphasia; *i. e.*, impairment or loss of articulate speech, or even of language in general. It would seem, besides, that (1) lesions of the same part on either side of the brain produce paresis of many muscles concerned in lingual and pharyngeal movements; (2) that lesions of the anterior folds of the island of Reil, convolutions which are continuous with the third frontal, may also produce aphasia; and that (3) loss of speech may result from injury to the white substance lying between the third frontal gyrus and the basis cerebri. I believe, you observe, in a not too limited localization of the motor functions exerted in language, and would graphically represent this by the circle marked I. in Fig. 9.

In the second place, lesions limited to the inferior portions of the ascending frontal and parietal gyri have produced spasmodic and paralytic phenomena limited to the upper extremity of the opposite side. I am disposed to admit as highly probable that these parts are connected in the healthy living man with the various voluntary movements of the arm and hand. This zone is represented in Fig. 9 by circle II.

I am not prepared to go farther in admitting pathologically proved cortical centres, but would add that there are some reasons for believing that future autopsies will locate one centre for the external facial muscles just forward of the two centres named above, *viz.*, the region included in the dotted circle III.; and another for movements of the legs upon the upper parts of the ascending frontal and parietal, as roughly indicated by dotted oval IV.

As regards sensory cortical centres, I have already said that we have as yet no pathological data for their study.

Having thus expressed myself about the question of cortical centres in man, I pass to the more clinical study of symptoms observed when the cortex is injured.

*First.* What are the symptoms of localized lesions involving the cortex alone, or the cortex and a minimum of subjacent white matter? The symptoms differ vastly in accordance with a rule laid down years ago by Brown-Séquard, according as the lesion is an irritative or destructive one; and besides, they vary according as the lesions are within the excitable cortical region (defined *supra*) or outside of it. We can clear the ground pretty safely at once by admitting that lesions irritating or destroying convolutions not embraced in the motor zone produce no symptoms at all. Large parts of the frontal, temporal, or occipital convolutions may be injured or utterly destroyed without the patient showing during life any special symptoms of organic cerebral disease. This statement is based upon the study of recent cases only, though I doubt not that in the literature of the century numerous apparently contradictory cases might be collected. In considering this negative proposition, one proviso must be borne in mind, *viz.*, that if the lesions of these unexcitable districts involve the dura mater, convulsions and localized cephalalgia may occur. Of this I have seen one marked example. We are now prepared to study the symptoms of lesions in the excitable or motor zone of

the hemispheres, as indicated by the various circles in Fig. 9.

1. The symptoms of an irritative lesion of these parts consist in convulsions, with or without subsequent transient paralysis; *e. g.*, such a lesion in circle III. (Hitzig's case) would give rise to spasmodic movements in the superficial muscles of the face on the opposite side, with slight paralysis. Irritative lesions of the regions inclosed in circles II. and IV. will cause convulsions limited to, or first appearing in the hand and arm, or foot and leg, of the opposite sides. As regards circle I., Broca's speech-centre, we know little of the effects of its pathological irritation. In one case which I have placed on record, a thickening of the meninges involving the third frontal convolution of the left side produced intermittent and incomplete aphasia.

It was by the close study of the clinical and pathological aspects of cases of localized epilepsy (fingers and hands), that Dr. J. Hughlings Jackson was enabled to form his theory of motorial discharges from irritation of the cortex cerebri, and thus pave the way for Ferrier's admirable researches. Dr. Jackson must, I think, be considered, after Prof. Broca, as the founder of our present growing doctrine of cortical localizations.

2. Destructive lesions of portions of the excitable district produce paralysis in peripheral parts across the median line. The symptoms will, to a certain extent, correspond with the *precise* location of the lesions, very much as in irritative lesions; *e. g.*, embolism of the first branch of the middle cerebral artery on the left side will cause softening of the posterior part of the third frontal gyrus, with the symptom aphasia. A destructive lesion of the principal part of the motor zone on the right side will produce left hemiplegia without aphasia; but if this lesion occupy the left hemisphere, loss of speech will co-exist with the paralysis.

It must be added that secondary descending degeneration ensues after destructive lesions of the motor regions of the cortex, and that we have late contracture or rigidity of the paralyzed limbs as part of the symptom-group.

Negative characters of these cortical lesions are preservation of sensibility in the paralyzed parts, and (except with epileptic attacks) preservation of consciousness, and incompleteness of paralysis.

In the next place, let us inquire what are the symptoms produced by diffused lesions of the cortex. As exemplified in acute meningitis, the chief symptoms are delirium, convulsions, and pain; evidences of intense irritation. The coma and paralysis which follow may in some degree be caused by impaired nutrition of the cortex, but more probably by circulatory and tension-changes in the whole encephalic mass.

There is a much better disease for studying the effects of lesions of the surface of the brain, both irritative and destructive—I mean general paralysis of the insane, or, anatomically speaking, diffused chronic meningo-encephalitis. The affection is very common, and has been thoroughly studied clinically and pathologically. From these studies we learn that in the first stage of the affection there occur fibrillary contractions in many muscles of the tongue, face, and limbs; that speech is made tremulous and jerky; that there is over-ideation and even acute delirium; that gradually memory and judgment become impaired, and a semi-paralytic and semi-ataxic condition develops in the limbs. Later the mental faculties are abolished; a stage of dementia with occasional gleams of delirium (exalted notions), and integrity of the organic functions char-

acterize the disease. The attempt is now being made to show that when the meningo-cortical changes are limited to the frontal lobes the symptoms are mainly psychical; when the lesion involves the motor districts alone we observe abundant fibrillary tremors and pseudo-paralysis; and, finally, if the occipital lobes are affected, sensory symptoms (hallucinations) predominate. As yet not much support has been obtained for such a distinction, which appears very tempting upon physiological grounds. It should not be forgotten, in using cases of general paralysis for the study of the question of localization, that the disease is one in which lesions exist in many parts, or almost all the parts of the cerebro-spinal axis.

The question of the localization of functions in the cerebral convolutions, and that of the possibility of diagnosing their lesions are as yet in their infancy; we need numbers of exact observations to decide it one way or the other. Just now, I believe that the presumption is in favor of a positive answer; there are many facts supporting this affirmative. The clinical and post-mortem facts have just been referred to, and I shall close the lecture by recapitulating the various anatomical, physiological, and pathological evidence in favor of the existence of motor centres in the cortex.

1. Coarse anatomy enables us to trace bundles of fibres upward from the motor tract of the medulla and pons, into the internal capsule as far as the convolutions which are grouped about the fissure of Rolando. By its aid we can also trace sensory nerve-fasciculi from the posterior regions of the pons to the occipital and temporal lobes, and their cortex. Such gross dissections are, however, condemned as unreliable by some authorities.

Microscopic anatomy shows that the so-called motor gyri are rich in large cells: nay, that they alone contain the "giant-cells" of Betz, that is, ganglion-cells, which in size and number of processes bear a remarkable resemblance to the unquestionably motor ganglion-cells of the anterior horns of the spinal cord and the medulla oblongata. In the motor convolutions these giant-cells are found in little clusters of three, five, or more, in a section, imbedded among the large ganglion-cells of the third layer.

2. Experimental physiology teaches us that electrical irritation of this zone, and of this zone only, produces muscular contraction in parts on the other side of the median line; and, further, that this zone may be divided into a number of "centres" for various small parts, tongue, face, arm, leg, etc.\* By experimentation we also learn that slicing or burning off these cortical centres produces partial paralysis of peripheral parts on the opposite side of the body, with precisely the same correspondence between centres and muscular groups as the irritative experiments demonstrate.

By the latter mode of experimenting applied to the occipital and temporal convolutions (Ferrier, H. Munk, and others), it is made highly probable that there is a certain relation between parts of these gyri and the organs of special and general sensibility across the median line.

3. Pathological anatomy (recent cases) demonstrates (a) that destructive lesions of the motor regions of the cortex (and of the paracentral lobule) produce descending degeneration throughout the direct

cerebral motor tract extending into the lateral columns of the spinal cord; and (b) that there is a remarkable correspondence between certain localized spasmodic and paralytic symptoms observed during life, and lesions irritating or destroying certain definite spots in the motor zone of the cortex.

## Original Communications.

### YELLOW FEVER: ITS PROBABLE ORIGIN THE GREAT DESERT OF AFRICA.

By E. B. TURNIPSEED, M.D.,

COLUMBIA, S. C.

It seems, from the means of research at my command, that in all the inquiries of those who have written on the origin of yellow fever, none have gone beyond the Western Hemisphere.

Although extensively written upon by Lieut. Maury and others, with an eye single to their bearing upon physical science, physicians have entirely ignored the influence of the trade-winds upon the production of diseases.

According to the investigations of Lieut. M. F. Maury, the Great Desert of Africa is a region of hot and dry winds. By the month of June this desert is heated up sufficiently to bring in the rain-winds, these rains continuing in Middle Africa incessantly until late in autumn, and making the rain season of about six months' duration. The remainder of the year, and until the commencement of the next rain season (June), is, of course, the hot and dry season, making at least six months in which vegetable decomposition is going on.

Also, the soil itself may contain poisonous elements, which, when acted upon by a burning sun, with these alternations of excessive hot, dry, and rainy seasons, are given off to be borne by the trade-winds in their courses, to be hereafter described.

The great difference of temperature between the day and night of the Great Desert may also have an influence, the air being 174° by day and 24° by night [Duvoyrier].

These trade-winds pass in a southwesterly direction until they reach the equator, then change to a northwesterly course, passing over the West India islands, and striking the coast of the Gulf of Mexico, as well as a portion of the Atlantic coast.

The barren wastes of Northern Texas, New Mexico, and the regions around in summer glow like furnaces, and the heated air ascends from them in immense columns. This produces an indraught from the sea, extending out from the centre of disturbance to the distance, says Lieut. Maury, of 6,000 or 7,000 miles.

The tendency of diurnal rotation, says the same author, on the Mississippi, is to throw the flat-boats, rafts, etc., upon the west bank, and that it is precisely the same force which gives the trade-winds their *easting*. Hence, if I am correct in my theory in regard to the production of yellow fever, this will account for the disease not appearing far to the west of the above river, and its terrible ravages far into the interior of the State of Mississippi; and, further, its tendency always to appear east of the line whence the trade-winds strike the Gulf coast, and never west.

The intensely heated and rarefied air, passing over Central Africa, during the rain season, when the poisonous elements are being constantly and rapidly

\* Still more recent researches by MM. Franck and Pitres show that after removal of the cortex in the excitable zone faradization of those portions of white substances which are then exposed (anterior half of the internal capsule) gives rise to similar (in kind and in distribution) movements in peripheral parts across the median line.



generated, would, of course, take up this element in great abundance; and as moisture is added in large quantities while passing over the immense area of seawater, these trade-winds are well suited to deliver their living burden on our shores, prepared for the addition of the malaria necessary to intensify its malignity.

As these winds, like all others, are somewhat subjected to changes in their direction, owing to causes not necessary here to discuss, I would, in all sincerity, ask if this may not account for the appearance of this fever only in certain localities, either on our Gulf or Atlantic coast, in any given season, while all other portions are exempt.

So far as my investigations have gone, I find that all those who have made any registrations of the directions and durations of winds while this fever prevailed, have confined themselves to the winds near the surface of the earth, not regarding the super-strata of air, which may account for the seeming incongruity in all efforts to identify the origin of the poison of this disease with the prevailing winds.

It is plain to the unbiased mind that these trade-winds, as stated above, heavily laden with moisture, meeting the sub-strata of heated and rarefied air from the land, would, according to well-known laws, dip down and rush in to fill up these rarefied spaces, thus seeming to come from the land instead of the sea. We are told by Humboldt that the farm of the Encero, in Mexico, the height of which is 928 metres (3,243 ft.), forms the superior limits of the vomito. La Roche (vol. i., page 117), says this fever, in 1812, appeared on Brimstone Hill, St. Christopher, at an elevation of 700 feet, and four times (1817, 1825, 1827, and 1831), at Stony Hill, Jamaica, the height of which is 1,360 feet. The greatest height yet given in this country is said to be 600 ft. (at Gallipolis, Ohio.) The reason why it is not propagated to higher points of elevation in the United States, is the absence here of that degree of atmospheric heat which is indispensably necessary for the elaboration of the native morbid agent, which is the only means through which to fit the original element for propagation.

In the Eastern Hemisphere yellow fever has appeared at Cadiz, Xeres, Carthage, Malaga, Alicante, Seville, Barcelona, and other cities of the coast and interior of Spain. It has prevailed at Gibraltar, Rochefort, Lisbon, and Leghorn. This summer a violent epidemic of yellow fever has broken out along the Senegal river, in Northern Senegambia, western coast of Africa, in the towns of Goree, Refusque, and Dakar. In the Western Hemisphere it has visited part of the coast of South America, the West India Islands, the contiguous coast of Colombia, Guatemala, and the extensive shores of the Mexican Gulf, sweeping from Cape Catoche on the west to Cape Sable on the east, and running thence along the coast of North America to Boston, including in its occasional ravages every intermediate city and town. The cities of the Eastern Hemisphere in which this fever has appeared, are directly in the line of a set of currents springing from the part of Northern Africa immediately above the Great Desert, and passing north and northeast, and are perhaps identical with the so-called sirocco winds. This tracing of the trade-winds and their track corresponding fully with the cities which have been invaded, and its non-appearance anywhere in the world outside of the prescribed line, goes far to corroborate my theory of this poison; and until these facts are satisfactorily refuted I will hold this opinion, and at some future time more fully elucidate the testimony.

*Conclusions.*—So far as I have gone in my researches into the literature of yellow fever, there has been nothing adduced by any author to disprove my premises, and I think I have gone very far to prove that my theory is substantiated by all the heretofore published testimony in the simple relation of facts in regard to this disease.

In order to verify the theory herein advanced, investigations should be made arranging balloons with cords sufficiently long to let them up perpendicularly over the cities where this disease prevails, with some one in charge capable of making the necessary thermometrical and barometrical investigations several times during the twenty-four hours. Also, so inclosing portions of the air constituting the super-strata of currents as to prevent its escape, and to be analyzed by competent chemists.

As this article is directed simply to investigation in regard to its origin, I will ask indulgence in merely giving to the reader a suggestion I made some years ago in the treatment of yellow fever. This was done in a written communication to physicians of eminence, then engaged in the treatment of this disease, which was prevailing at New Orleans, Shreveport, Memphis, and other cities. It is a simple one—the inhalation of oxygen gas. The reasons then advanced were briefly stated as follows: as the poison which generates this terrible disease is acknowledged by scientists to be imbibed through the lungs and skin, and as oxygen gas is equally acknowledged to be the element supplied by atmospheric air as the great health-preserver, being the means through which the blood is oxygenized, so the lack of proper oxygenization is evidently one of the great troubles in the treatment.

Also, it is well known that in all such poisons medicine can only assist nature in the process of elimination, and as the proper oxygenization of the blood is absolutely necessary in aiding the kidneys, bowels, skin, and lungs in performing this work, we should give nature the air she demands by supplying that which is needed in quantities sufficient to perform the work. Recent trials, so far as made, have confirmed my opinions, and this agent promises much in the treatment of this disease.

COLUMBIA, S. C., Oct. 3, 1878.

## EXTRA-UTERINE PREGNANCY IN DOUGLAS' CUL-DE-SAC.

FÆTUS EXTRACTED THROUGH THE VAGINA—RECOVERY.

By A. H. GOELET, M.D.,

NEW YORK.

Mrs. DELPH, aged 26 years, mother of three children, last of which is fourteen months old, consulted me for metrorrhagia on the 16th of January, 1878, from which she had been suffering two weeks. Her menstruation reappeared when her last child was nine months old, and remained regular up to the present attack. She complained of weight in the pelvis, but no pain. Examination revealed the uterus somewhat lower than normal, but the probe showed it to be in the normal axis, and two and a half inches in length. A Hodge's closed lever pessary was introduced, and she was put upon Squibb's fluid extract of ergot, twenty-five drops five times a day, and directed to keep quiet. The second day the medicine was given it produced nausea, which was the only time this symptom was present throughout the case till septi-

cemia set in. The ergot checked the flow somewhat, but it did not cease entirely.

She continued to do well till the 2d of February, the flow being bad only when she exerted herself too much. At that time she thought she had strained herself, for after lifting a heavy tub of water, she immediately felt faint and chilly, and from this time experienced acute pain in the pelvis, which was aggravated whenever there was a movement of the bowels.

On the 9th she consulted me for the relief of the pain, which had become unbearable. A digital examination revealed a large, hard tumor in Douglas' cul-de-sac, which obstructed the rectum and forced the uterus upward and forward against the pubes. Her pain was also much aggravated when she stood up, and even when she sat up in bed, and there was some tenderness over the abdomen with tympanites. The diagnosis was hematocele. She was ordered to retain the recumbent posture, and to have her bowels moved only by injection. Opium given for the relief of pain, and the ergot discontinued.

10th.—Patient is more comfortable, free from pain, except when there is a movement of the bowels. Metrorrhagia still continues. Appetite good.

11th.—Condition about the same.

13th.—Found patient very despondent, and feeling worse; pulse full and temperature elevated.

14th.—She is some better. The flow is considerably increased, and is offensive, but she says it is the regular time for her monthly sickness.

16th.—Dr. Geo. T. Harrison was called in consultation, and agreed with me in my diagnosis, excluding extra-uterine pregnancy, because there was no enlargement of the uterus, and no history of amenorrhœa nor other symptom of pregnancy. There was at this time considerable tenderness over the abdomen, and the tumor was exquisitely sensitive. She was ordered hot-water injections twice a day, followed each time by hot solution of muriate of ammonia, to be commenced after the flow had somewhat checked.

17th.—Found patient comfortable, with less pain and tenderness of the abdomen.

19th.—The flow has nearly ceased. Injections commenced.

21st.—Her condition seems much improved. She thinks the injections have given relief.

24th.—Condition same.

26th.—Increased pain and tenderness of the abdomen and tympanites. Increased temperature. Ordered 5 grs. quinine night and morning.

27th.—Chill. Temperature still higher. Symptoms much increased in severity. Ordered 20 grs. quinine at night, and 10 grs. in morning.

28th.—Temperature much lower, and her condition much improved.

March 1st.—Her condition is much worse. Temperature higher again. Advised her to have the tumor incised, but both the patient and her husband preferred to wait.

2d.—She became much worse, and sent for me to have tumor opened, but Dr. Harrison was unable to attend, and it was delayed till next day.

3d, 11 A.M.—She is suffering no pain, though she was delirious during the night, and is sinking perceptibly. Every symptom to indicate septicæmia. Arranged to meet Dr. Harrison at 5 P.M. 2 P.M.—I was summoned hurriedly to her, and found her completely prostrated, vomiting and purging; pulse weak; almost extinct; temperature 105½°.

Dr. H. was immediately sent for. A hypodermic of morphine, ℥ vi., checked vomiting and purging, and

brandy, hypodermically, revived the pulse somewhat. Having no aspirator convenient, we used a hypodermic syringe, and drew from the tumor some very offensive fluid, serous in quality and bloody colored. A Sims' speculum was then introduced, and an incision made into the tumor. Only a small quantity of the same fluid escaped. On exploring with the finger, a movable mass was felt within the sac, which, when removed, proved to be a fetus in a state of decomposition, three inches in length, and consequently in the third month of development. The secundines were left undisturbed to avoid the uncontrollable hemorrhage which might follow their removal. The cavity was thoroughly cleansed and disinfected with carbolic acid, and then, to avoid the accumulation of purulent matter, the patient was placed on a bed-pan, and a constant flow of the disinfectant into the cavity established by means of a syphon. This consisted of a stone jar containing the solution of carbolic acid on a table above the bed, and a small rubber tube with a glass tube at the end, which was passed into the cavity. By means of a clamp to the rubber tube, the flow was regulated to pass only drop by drop. Ordered beef-tea and brandy. 11.30 P.M.—Found her quite comfortable and in good spirits. Temperature has been reduced three and a half degrees by the operation.

4th, A.M.—The bed-pan has caused so much discomfort that it is necessary to remove it. A rubber drainage-tube was introduced into the sac, which conducted the outflow into a larger tube, which emptied into a vessel at the side of the bed.

P.M.—There is some pain over the abdomen. Ordered flaxseed-meal poultice with mustard, and gave ℥ viij. of Magendie's solution of morphine hypodermically.

5th, A.M.—Her condition is much improved and the pain has ceased. The constant flow of water keeps the clothes under her wet, and it is thought best to discontinue it. The flow is entirely checked by means of the clamp, which is to be removed every hour, and the full stream allowed to flow for ten minutes. P.M.—Patient does not feel so well as this morning, and the temperature is some higher. The jar containing the disinfectant removed, but the tubes were left in position so a Davidson's syringe could be attached and the cavity thoroughly washed out every hour. Morphine, ½ gr. given hypodermically.

6th, A.M.—Patient is in good spirits and doing well. Ordered an injection to move the bowels. She has had no passage since the operation. As the tubes would slip out whenever the nurse injected the cavity, they were removed and the female nozzle of the syringe introduced through the incision and left in position. She was ordered to be placed on a bed-pan and syringed every hour. Morphine, ¼ gr. P.M.—Pulse much weaker and temperature higher than this morning, but after thoroughly disinfecting the sac the pulse was strengthened and the temperature reduced one-half degree in half an hour. Morphine, ¼ gr.

7th, A.M.—Appetite bad; takes wine, but cannot eat anything without vomiting it immediately after. There is no pain nor tenderness over the abdomen. The remains of the tumor as felt through the vagina is not very sensitive. Several small detached pieces of the placenta were removed by syringing. The injections to be continued and the patient to have beef-tea, jelly, and wine in small quantities every hour. Ordered pepsine for the relief of the nausea. Omitted the usual hypodermic of morphine. P.M.—Her condition is much improved; nausea relieved. Morphine, ¼ gr.

8th.—Temperature much higher than last night,



because the nozzle of the syringe had slipped out and the syringing was imperfect. Appetite improving; took beef-tea with relish. P.M.—Although the patient is quite comfortable, the temperature is 104 and the pulse weak. By forcibly injecting the cavity removed several pieces of the placenta and some pus.

9th.—Her condition is much improved. She is cheerful and takes food with relish. Temperature lower, pulse stronger.

10th, A.M.—Condition same. The tumor is reduced much in size. P.M.—She had the first natural movement of the bowels.

11th.—Removed the syringe, because the nozzle stops up the opening and prevents free drainage. The husband, who is a very intelligent man, and who has proved himself a most competent nurse throughout, introduces the nozzle every hour and uses the disinfectant.

12th.—The syringe had not been used for four hours, owing to the unavoidable absence of the husband. The temperature was 104, but was reduced to 103 soon after using the disinfectant.

13th.—Found same condition as the previous day, which was unavoidable. This time she was much depressed and nauseated, but was relieved immediately by using the disinfectant. P.M.—Her condition is very much improved. She has eaten well during the day and had a natural passage. Temperature reduced to 102.

14th.—Patient is doing well.

15th.—Appetite is good and she is improving. Here my visits ceased for a time on account of an attack of facial erysipelas, and she was left in charge of my friend, Dr. Harrison, who states that she continued to improve, though the temperature ranged from 100 to 102 from time to time.

When I saw her again, which was on the 15th of April, I found her sitting up, but she was regaining her strength very slowly. There was still some offensive discharge from the vagina which came from a very small opening just behind the cervix uteri. There were no remains of the tumor to be felt. Ordered her to continue the disinfectant vaginal injections and to take a tonic.

May 3d.—She says that the discharge stops sometimes for a few days, then she has high fever, and "something breaks" and the discharge commences again in larger quantity. The opening heals up for a time, but the formation of pus causes fever and forces it open again. Directed her to notify me the next time "anything broke."

20th.—Was called; the discharge, after having disappeared for a few days, reappeared suddenly. I injected into the small opening just behind the cervix compound tincture of iodine. It produced but little pain, and when I saw the patient again two days after she was around as usual and had suffered no inconvenience from it.

When I saw her again, which was about the middle of July, there was no discharge; the opening had entirely healed and she was regaining her strength and flesh rapidly. The discharge had ceased a few days after the iodine was used and had not reappeared. Her menstruation had recommenced the first part of the month.

**ADULTERATION OF SANTONIN.**—Santonin is said to be adulterated with boric acid. The test is: ignite the specimen, dissolve the residue in boiling water, allow to crystallize, when boric acid separates, and is recognizable in the usual manner.

## A CASE OF ATROPHY OF THE LIVER AND PERIHEPATITIS, WITH REMARKS.

By JOHN D. NEET, M.D.,

VERMILION, KY.

FANNIE G., æt. 23, married, and the mother of one child, came under observation June 11, 1878, with abdominal swelling.

There was no hereditary tendency to disease manifest in the family history, all enjoying good health, except the mother, who died some years ago of "dropsy." Patient states that she has not enjoyed good health for the past two months, complaining principally of loss of energy and appetite, and a sense of growing weakness until the 8th of June, when she noticed this abdominal swelling. This, however, has not been a source of inconvenience or pain, and only attracted attention by its increasing dimensions.

Upon examination, the abdomen was found very much enlarged, and tympanitic over its entire surface, yet there was no evidence of fluid within its cavity. In consequence of the great tympanitic distention, it was impossible to satisfactorily limit the area of hepatic and splenic dullness; the stomach and intestinal tract gave no evidence of marked deviation from the healthy type, and a careful chemical examination of the urine determined a healthy state of the kidneys. Except slight catarrh of the larger bronchi, there was nothing abnormal in the thoracic viscera.

On June 12th, a rather profuse diarrhœa supervened, with from eight to ten evacuations in the twenty-four hours, and with the discharges considerable gas, without, however, apparent diminution of the abdominal enlargement. This condition was not accompanied by any special constitutional disturbance, like pain or febrile movement, but its effect was marked by progressive weakness, acceleration of the circulation, and patient seems worn and feeble, with pulse 95 and temperature normal.

At my next visit, a few days later, found temperature 101°, pulse 105, and a decided increase in the bronchial catarrh. The abdomen was still distended, and upon examination, elicited signs of fluid within the cavity. She was now losing flesh and strength rapidly, and the determination was made to tap in a day or two, provided there was any increase in the effusion. It was yet impossible to ascertain the condition of the liver by physical examination, and it is strikingly strange that the patient does not complain of anything, and there is not a sign or symptom present to afford a clue to the nature of the existing disease. On the day but one after my last visit, found temperature normal, pulse 105, and a marked diminution in the gaseous and ascitic collection; but, notwithstanding the free administration of opiates and astringents, the diarrhœa persisted. Patient seemed to improve for the next few days; tympanites much less, and there was no evidence of ascites at all. For the first time the limit of hepatic dullness was ascertained, and a decided diminution pronounced. Spleen normal.

On July 10th, a few days later, tympanites, ascites, and bronchial catarrh increased, and patient now complains of a dull and constant pain, limited to the epigastrium. Her appetite and stomach digestion are good, yet her vitality and strength are being rapidly consumed.

Waiving further details for the next few days, suffice it to say, the epigastric pain and diarrhœa continued, the tympanites diminished, and the ascites and

bronchial catarrh disappeared entirely. On the 22d, delirium set in, pain became intense, bronchial catarrh, tympanites and ascites increased; but there was no febrile excitement. On the 23d, had a slight hemorrhage from the stomach, which was repeated on the following day. On the 25th, vomiting and hemorrhage ceased, bronchial catarrh diminished, tympanites and ascites were rapidly disappearing, delirium was more constant, breath very fetid, and urine and faeces passed involuntarily. On the 26th, epigastric pain and hiccup were intense, and convulsive movements were distinct throughout the body. (Examination of urine still gave negative results.) On the 27th, patient expectorated a profuse quantity of frothy mucus, tympanites and ascites entirely disappeared, delirium active, and death occurred at 8 p.m.

At the autopsy, the liver was found firmly adherent to the intestines, spleen, stomach, and a portion of the diaphragm. The breadth and width of the organ were somewhat diminished, while it was not more than from a quarter to a third its normal thickness; indeed, the left lobe was scarcely so thick. It was as flabby as an empty stomach, of a peculiar grayish color, and its surface was for the most part smooth, though *slightly* lobulated in places. The capsule was very much thickened, the parenchyma proper, or cellular substance of the liver, was atrophied, but the connective tissue increase was not very marked within the substance of the organ. There was no evidence of peritonitis at any other point over the surface of the peritoneum. Other organs not examined.

*Remarks.*—Perihepatitis must be rare, if, indeed, it ever exists as a primary and independent affection, and does not declare itself by signs or symptoms specially and peculiarly its own. The reason for this is quite evident when we recall to mind the anatomical structures which mark the seat of the disease, the dependent relation which they sustain to the organ they invest by reason of the essential conditions of nutrition, and it is at once incumbent upon us to search for the underlying morbid process in some visceral organic disturbance, and not limit it to structures whose healthy nutrition depends, for the most part, upon a healthy state of the organs they invest. Dr. A. L. Loomis has reported a case\* almost entirely analogous in its symptomatology and course to the above, in the person of a lady suffering at the time from chronic malarial poisoning, which he regarded as an important etiological factor in the development of the disease. He thought it highly probable that an inflammatory process may have extended from the hyperemia of the organ, the effect of the malarial poisoning, to the degree of producing the pathological processes declared at the post-mortem. This, to be sure, is sufficiently plausible, but the history of the subject of this report furnishes no evidence of malarial poisoning or syphilitic infection—the two moving causes of the disease. He was not an indulger in spirituous drinks. In short, the case presents nothing that we can accept as tangible etiology. The fact that the liver was found firmly adherent to the adjacent organs would point, unquestionably, to an inflammation of its peritoneal investment. But if this was the starting point of the disease it is not a little strange that it should have been thus confined, and not spread more extensively to tissues, not contiguous, but continuous, as does peritonitis, and more especially when it exists as a primary and idiopathic affection, in the so-called *rheumatic peritonitis*. Moreover, had the disease originated in the peritoneal or fibrous investment of the

organ, and produced connective-tissue changes by extension, besides some jaundice—which was present in Dr. Loomis's case—we would have had more or less permanent interference with the portal circulation through the liver, and consequent permanent ascites, enlargement of the spleen, highly colored urine, hemorrhoids, etc. On the contrary, there was no jaundice, the ascites and tympanites were not lasting, the urine was of normal color, there was no enlargement of the spleen, appetite was good, and stomach digestion normal to within a few days of death.

The symptomatology and course of the case were sufficient to exclude *acute yellow atrophy*, but other diseases which were thought to possibly exist are too numerous to mention, and a differential diagnosis could not be made. In the absence, then, of something more plausible, the pathological processes noted at the post-mortem would seem to justify the opinion that the perihepatitis was secondary to a primary atrophy of the liver, in which the liver-substance disintegrated cell by cell. The molecular detritus of the liver-cells acting as a foreign substance may have induced hyperemia of the organ, and an inflammatory process established in connection with those changes may have extended to its fibrous and peritoneal investment, and produced the adhesions found at the autopsy. General indisposition and disturbed nutrition marked the primary action; tympanites, intestinal catarrh, and ascites supervened when disease attacked the peritoneum; the hematemesis was incident to faulty nutrition in the capillary walls, and the ataxic symptoms, perhaps, to "poisoning by noxious substances which are formed instead of the normal products of the change of tissue" (Niemeyer).

## Reports of Hospitals.

### CHILDREN'S HOSPITAL, PHILADELPHIA.

SERVICE OF DR. J. H. HUTCHINSON.

By J. M. TAYLOR, M.D., HOUSE SURGEON.

(Reported for THE MEDICAL RECORD.)

#### CONTAGION IN SCARLET FEVER.

On April 30, 1878, a very severe case of scarlet fever appeared in the boys' ward. The boy attacked occupied a bed near the centre of the room. Coincident with this was a similar case in the girls' ward. Both of these wards are on the second floor. The cases were at once removed to the upper story, where wards are prepared for such contagious diseases as arise among the house patients.

Within a week previous to his removal this boy had been successively changed from two beds to a third, and immediately afterwards these two beds had been occupied by other boys. No other case occurred in either of these wards. In a ward on the third story, front, were a number of children suffering from whooping-cough, a disease which had run riot throughout the house, but was then upon the decline. The ward adjoining this was the one devoted to the scarlet-fever patients. Among the whooping-cough cases on the 2d of May, a girl manifested the characteristic symptoms of scarlet fever, and was transferred to the adjacent ward. Not another one of these cases of pertussis took the scarlet fever, notwithstanding the fact that the girl already attacked was large, and was

\* MEDICAL RECORD, 1876, p. 502.



suffering merely from keratitis in addition to the cough. She acted as nurses' assistant, and in this capacity repeatedly came in contact with the other children in the ward.

Ten days after the last date, on May 12th, two very mild cases, occupying beds very remote from each other, broke out in the back ward on the second floor. These last were so faintly marked that they might have been overlooked but for the suspicions excited by the prevalence of the disease. On the 1st of June one other case occurred in this ward. On May 4th another case occurred, a boy suffering from a slight deformity, and confined to the "play-room," so-called—a room below the first floor, opening directly upon the play-ground. The children from this part of the house seldom come in contact with those in the upper wards, and then only in exceptional cases. Twenty-four days after the isolation of this last boy, one other case, that of a girl, occurred in the play-room.

From these facts it would seem that *contagion* is not the most important element in the spread of this disorder. We must rather look to individual susceptibility coupled with similarity of circumstances. Nor has mere physical weakness much to do with this susceptibility. Lying very near most of the cases above mentioned were children suffering from a great variety of troubles, both medical and surgical. Only one or two in an entire ward were attacked. During the time which elapsed from the incipency of the first to the convalescence of the last case, between eighty and ninety general patients were treated in the house. Only nine of these took the scarlet fever. Of all the patients in the house, but half had had the scarlet fever. The first boy attacked had been in the house seven weeks before the manifestation of the angina, which, in his case, was unusually severe. He could scarcely have come in contact with any one carrying the "seeds of the fever" after entering the house. This case was by far the most severe of all, resulting in death. None of the others died. Each case was milder than the preceding one—an evidence that the most susceptible are those first attacked. To but one case was there the sequela of albuminuria. This child was also suffering from a severe bronchitis, and at the outset of the fever was much emaciated. The presence of the albumen was first detected on the nineteenth day. There was little else to suggest danger, except a trace of blood in the urine. Prompt treatment held this symptom in check, however, and by three weeks' time the blood and albumen had both disappeared from the urine. The bronchitis meanwhile was all gone, and the child improved in color and flesh. Keratitis in two cases was much improved by the fever.

#### SERVICE OF DR. H. LENOX HODGE.

#### CASE OF RAPID RECOVERY FROM COMPLETE LUXATION OF GREAT TOE.

(Reported by DR. J. M. TAYLOR.)

N. C., æt. 8 years; admitted April 30, 1878. This lad was brought to the house and treated by Dr. Taylor within about half an hour after the receipt of the injury. A "Belgian block" had fallen with violence upon his foot, causing very great contusion and laceration.

The articulating surfaces were widely separated, and the synovial membrane entirely exposed. The transversus pedis, adductor pollicis and flexor brevis muscles were all torn from their insertions.

The case indicated amputation, but it was determined, in view of the rare vitality of the boy, to make

an effort to save the part. The resident, Dr. Taylor, at once used a simple dressing of cold water and tinct. opii, and on the day following, in accordance with Dr. Hodge's directions, used liquor plumbi subacetatis and tinct. opii. This treatment was continued for a week, and followed by simple cerate dressing.

The object in calling attention to this case is, to give prominence to the following facts: from the time of the first dressing there was not the least complaint of pain or tenderness. There was no inflammation manifested. The external wound healed by first intention, and by the tenth day the boy was out of bed and maltreated a neighbor in the temporary absence of the nurse from the wards.

By the fourteenth day there was perfect, active motion of the whole toe, and the patient was discharged.

In these days of advanced surgical knowledge, many specific forms of dressing are advocated. Men of such eminence as Lister, Gamgee, etc., claim pre-eminence, and quote favorable cases to establish their several positions. There are the wet, the dry, the antiseptic, and many other forms of dressing. Here we have the case of an individual with youth and a sturdy constitution that under any one of these systems would doubtless have done well.

## Progress of Medical Science.

TREATMENT OF SYPHILIS WITHOUT MERCURY.—Dr. Boileau stated before the British Medical Association that for several years he had not only treated, but he believed cured, cases of syphilis among soldiers, without the use of mercury. His principle had been to avoid mercury as much as possible; he treated most of the cases without administering any form of that remedy, and very rarely resorted to fumigation or inunction. He believed, however, that it would have been better to have discarded all remedies having mercury in their composition, although he occasionally used them with the hope of obtaining good local results. He believed that in the cases where mercury was locally applied, the actual amount absorbed into the system must have been very slight. His treatment had consisted in the frequent employment of hot-water baths, confinement to bed, scrupulous attention to cleanliness, full hospital diet (generally with a pint of the best ale daily), and the internal administration of iodide of potash, Dover's powders, nitrate of potash, chlorate of potash, etc. Several illustrative cases were briefly reported. In reply to some objections raised against his paper, Dr. Boileau said that his cases were matters of fact, and the results did not admit of discussion. He admitted that his cases were under exceptionally favorable circumstances. He saw no reason why he should give mercury if he could do without it. Local sores certainly healed without its use, and all his cases were, as far as he knew, at present healthy.—*The British Medical Journal*, August 24, 1878.

APPLICATION OF THE PORO-PLASTIC FELT JACKET.—On Wednesday, August 8th, Mr. Adams gave, at the Royal United Hospital, a practical illustration of the mode of applying the poro-plastic felt jacket during suspension in disease of the spine and lateral curvature, in a manner similar to that recommended by Dr. Sayre, in the application of the plaster-of-Paris jacket. Mr. Adams considered that the American system of treating spinal disease with angular curva-

ture, as well as some cases of lateral curvature, by suspension, and the application during suspension of a plaster-of-Paris jacket, was the greatest advance recently made in the treatment of these affections. The system of extension by the head, as well as by the arms, is said to have been of ancient date. It was certainly practised by Mr. Stafford, in London, more than thirty years ago, and the apparatus for head-extension is figured in his work on the spine. Mr. Adams had for more than twenty years practised extension by the arms, using for this purpose the trapeze bar, in cases of lateral curvature, and the effect of extension in straightening the spinal curvature was well known. English surgeons, however, always trusted to recumbency and gymnastics for retaining any advantage gained. The originality of the idea of retaining the advantage gained by suspension, by the application of a plaster-of-Paris bandage or jacket whilst the body is suspended, is undoubtedly of American origin, and it is to Dr. Sayre that English surgeons are indebted for the knowledge of this system of treatment. The substitution of the material known as plastic felt, which has been used for some years both in America and in Europe, for fracture splints, etc., for the plaster-of-Paris bandage or jacket will, it is hoped, overcome many of the objections raised against the plaster-of-Paris jacket. Experiments with the poro-plaster felt were made, at the suggestion of Mr. Adams, in the early part of the present year, by Mr. Ernst, with the assistance of the inventor, Mr. Cocking. Mr. Ernst has now brought the poro plastic felt jacket to a high degree of perfection, as shown by its application to several cases before the meeting. Mr. Fisher has, at the National Orthopaedic Hospital, applied a large number of these jackets, and considers them to be quite as efficient, and in many respects superior to the plaster-of-Paris jacket. These poro-plastic spinal jackets cannot be made out of the sheet felt, but must be manufactured on wooden blocks, and are kept in different sizes. After the proper measures have been taken, one of the jackets approximating to the required size is softened in an oven or hot air-chamber, at a temperature of 180°. This occupies from three to five minutes, during which time the patient is being suspended, precisely in the same way as when Sayre's plaster-of-Paris jacket is applied, and a tightly fitting gauze vest is drawn over the body. The body is then wrapped around with a sheet of cotton-wool, which forms a soft padding, and is useful as a non-conductor of heat. This was suggested by Dr. Yandell, of Kentucky. The softened jacket is then applied, and rapidly moulded to the trunk whilst the patient is suspended. It is then buckled in front, and a broad bandage firmly and rapidly applied round the jacket from the top to the bottom, the patient still being suspended. In two minutes from the time of application the jacket will be found to be cool, and firmly set, and the process complete. It can be removed at pleasure, for the purposes of sleep, washing, and gymnastic exercises, so useful in lateral curvature. It can be softened and reapplied, as improvement in the spinal curvature takes place, and the same jacket will last a year or more.—*The British Medical Journal*, August 24th.

**A RENAL FORM OF TYPHOID FEVER.**—We have already had descriptions of typhoid fever in which the cerebral, cerebro-spinal, and thoracic symptoms predominate. Dr. Charles Amat describes in his thesis a renal form, with regard to which he formulates the following conclusions:

1. The typhoid poison attacks the kidneys in the

same way as the other organs, the brain and lungs, etc.; hence the necessity of admitting a renal form.

2. Recognized by M. Gubler, M. Al. Robin, and Hardy, this form has not yet been the subject of a complete description.

3. It possesses a complete symptomatology—slight diarrhoea, considerable debility, extreme adynamia, earthy color of skin, abundant epistaxis, rapid delirium, very high temperature, inconsiderable rash, and a special urological group of symptoms: sanguinolent coloration, odor of boiled bread, containing sediment formed of the red and white globules; albumen in large quantities.

4. The ordinary form differs from the renal form by the greater intensity of the abdominal phenomena, by the more abundant diarrhoea, by the delirium, by the less elevated temperature, by a more confluent eruption. The urine is orange-colored; the sediments are not constant, consisting principally of urates and phosphates.

5. The kidneys present the signs of interstitial nephritis.

6. The renal form may be confounded with the ordinary form, or with primary renal disease.

7. The progress and duration vary. The termination is generally fatal.

8. The variations in the quantity and composition of urine aggravate the prognosis or render it favorable.

9. The patient should be placed on milk diet, and cold baths are contraindicated.—*The Medical and Surgical Reporter*.

**THE PATHOLOGY OF COLLES' FRACTURE.**—Dr. Hector Cameron, of Glasgow (*Glas. Med. Jour.*, March, 1878), has been so fortunate as twice to have had the opportunity of examining a recent specimen of the fracture after death. In the first, the fracture, although transverse, passes obliquely from above downward and forward, so that while at the anterior aspect of the bone the line is not more than a quarter of an inch from the articular surface, on the posterior, the distance is increased to about an inch. There is some comminution of the lower fragment, and the broken surface of the upper is extremely rough and denticulated. This very irregular and notched character of the fractured surface appears to be usual (Malgaigne), and is of interest in so far as it may cause difficulty in the reduction of the displacement. In this particular instance, although it cannot be said that there is any impaction, a toothed projection on the long fragment so locks the other fragment in its new position upward and backward, that it would be impossible to reduce it except by great force. In the second specimen there is a transverse fracture about three-quarters of an inch above the articular surface of the bone. In front the break is hardly complete, the periosteum holding the fragments together, but allowing them to bend at an angle there, as upon a hinge, so that the lower fragment is, as usual, tilted upward and backward, and has the direction of its articular surface so altered that it looks upward, backward, and outward. On the posterior aspect not only is the fracture complete, but the dense outer covering of the upper fragment is driven firmly into the substance of the lower, splitting it like a wedge into three fragments, which, however, hold closely and securely together. The impaction is complete and irremediable. Although firm extension improves matters, it does not unlock this connection between the two fragments on the back of the bone.—*The Medical and Surgical Reporter*, Sept. 7, 1878.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE TREATMENT OF CRIME AND REFORM OF CRIMINALS.

### II.

IN our former article on this subject we referred to the injustice existing as regards imprisonment on suspicion, inequality of sentences, and the present treatment of drunkenness; and we had been led, after an examination of the subject, to the legitimate conclusion that "labor" was of paramount importance both as regards prison discipline, and as a measure tending to reform the criminal.

In contrast to this humane and beneficent system, whereby the criminal is surrounded by all possible reformatory influences, stands the barbarous, cruel, unchristian solitary confinement system in vogue in Pennsylvania. It is incomprehensible how such a system—without pretensions to public economy or reformation of criminals, parallel only with the system in vogue centuries ago—can flourish in the nineteenth century, and in "progressive and enlightened" United States of America!! This "man's inhumanity to man" Charles Dickens graphically denounced many, many years ago; his words should have awakened "those who devised this system of prison discipline, [who] do not know what it is that they are doing," to a realizing sense of their crime against human creatures, when read to this effect:

"I am only the more convinced that there is a depth of terrible endurance in it which none but the sufferers themselves can fathom, and which no man has a right to inflict upon his fellow-creature. I hold this slow and daily tampering with the mysteries of the brain to be immeasurably worse than any torture of the body; and because its ghastly signs and tokens are not palpable to the eye and sense of touch, as scars upon the flesh—because its wounds are not upon the surface, and it extorts few cries that human ears can hear—therefore I the more denounce it as a secret punishment which slumbering humanity is not roused up to stay. But now I solemnly declare that, with no rewards or honors could I walk a happy man beneath

the open sky by day, or lie me down upon my bed at night, with the consciousness that one human creature, for any length of time, no matter what, lay suffering this unknown punishment in his silent cell, and I the cause, or I consenting to it in the least degree."

It is a disgrace upon humanity. After having travelled this broad desert of wrongs existing in the treatment of criminals, the traveller rejoices in finding one cheering oasis—the Irish system. This has for its groundwork: 1st. The protection of the public from the criminal: 2d. The humane, generous, and moral elevating treatment of the prisoner; and 3d. His reinstatement in the good opinion of his fellow-beings and pecuniary assistance. Here is every incentive to reform; here is the only true system of prison discipline and treatment. We must make a final extract from this valuable document, and this time from the physician's report, showing that reform and the prisoners' good is the study of these exceptionally conscientious officials:

"There has been, however, an earnest effort made in every direction toward protecting the health of the men, which cannot have failed of effecting some good results. Beside the utmost care in the selection of the food, especially during the summer months, the most rigid policing of the yard, the weekly flushing of the sewers, and the cleanliness enforced in the care of the wings, two other measures have been instituted to which I attach a still greater influence.

"The first is a change made over a year ago in the manner of washing down the wings. The former custom was to use large quantities of water every day in mopping down the stone floors, and once or twice a week to turn on the hydrants and literally flood the place; in consequence, the atmosphere was kept in a damp, unhealthy condition, both generating and intensifying disease. Since the discontinuance of this method the amount of severe colds and rheumatism of former years has been materially lessened.

"The other change is in the care of the night buckets. They were well rinsed out and dried, and once a week, on Sundays, a small quantity of a weak solution of copperas was used. Since May, however, they have been cleansed much more thoroughly, and every day about a drachm of copperas in a few ounces of water was put in each bucket. It is hard to estimate the value of this as a sanitary measure, but it has probably had some effect both as destroying and preventing the formation of disease germs."

Lastly, we must consider the executive pardoning power and its exercise. The very existence of such an endorsement, except as regards persons imprisoned for crimes against the government, state or federal, is an admission of civil injustice. If a man be guilty, and his sentence just, as measured by the standard of offence and not by that of judicial discretion, his excellence of behavior while imprisoned should gain him the respect of, and small favors from, the prison officials, but on no account bring him pardon or a shortened term. Such a law, and its enforcement, might prevent a certain amount of crime; at least, it would be eminently just. Of course the executive should have the power to liberate imprisoned innocent persons.

The remedy for existing injustice as regards imprisonment on suspicion and inequality of sentences we believe to lie in the following propositions:

1. All persons, poor or rich, should not be deprived of their liberty on mere suspicion of guilt, except well-known and old offenders against the law.

[A person caught in the act, or, after subsequent capture, identified by the several witnesses of the act, must be considered as proven guilty, as merely awaiting formal condemnation and sentence.]

2. Since it is the duty of the State to punish crime; since it is paid by the people to do justice—neither more nor less, it is also its duty to furnish officials at its own expense, to keep suspected persons under strict surveillance; therefor it should be compelled to keep its servants domiciled with the party or parties suspected, always at its own expense, to follow and be a constant companion of the latter, but never to deprive them of their liberty, home, or occupation.

3. In case of trial and acquittal of the suspected person or persons, barring cases of acquittal on a verdict of "emotional insanity," "justifiable homicide," or the like, the State should pay the accused and the witnesses for the defence a fixed fee for each day's attendance upon the trial, as well as pay the accused a certain stipulated counsel fee, towards meeting his or her expense in this direction.

4. Speedy trial of all accused persons.

5. No re-trial on mere technical appeals, but simply upon valid proof of witnesses' perjury, illegal exclusion of testimony, or a manifestly unjust charge by the Court (to be judged by the Court of Appeals), or the production of such new evidence as contains proof of the innocence of the accused.

6. Crimes should be graded according to the circumstances attending the commission.

7. Sentences should be proportioned to these grades, each grade bearing its fixed sentence.

8. The jury's verdict should designate the grade of crime. No discretion should be given to the Court, unless it also be the jury.

#### PROFESSIONAL SECRETS AND PROFESSIONAL OBLIGATIONS.

In another column appears a communication from a physician in this city, calling attention to a very important matter connected with professional secrets and professional obligations. He says very properly that the question, as to whether a physician is or is not culpable in preventing a marriage with a syphilitic patient, is of vital importance. The circumstances detailed in the correspondence are certainly of a painful character, and call loudly for a remedy; but whether the physician can apply it or not is not quite clear. There are so many phases in which to view the subject, and so many circumstances to take into account, that it is difficult to lay down any definite rule of conduct in a parallel case. The physician is always

in a professional capacity under a strong bond of secrecy. This is eminently proper, and for reasons which need not be given here, as the latter readily suggest themselves to every practitioner.

Very many, in fact the large majority of medical men, although believing as our correspondent does, that something should be done to prevent an unprincipled scoundrel from giving a loathsome disease to an innocent victim, are quite undecided as to the means to be used. While it seems deplorable that such a crime should be perpetrated in defiance of a possible prevention, it must nevertheless be remembered that the attending physician is neither a detective, an informer, nor an officer of the law, and that, technically and ethically speaking, he shifts the responsibility of the case upon the shoulders of the criminal as soon as he warns the latter of the dreadful consequences of his crime. From a strictly moral point of view, however, the aspect of the question alters itself very materially; so much so, indeed, that no physician could be trusted to give an impartial decision regarding the steps which should be taken to prevent the disease from entering his own family.

#### THE YELLOW FEVER COMMISSION.

FROM all accounts, the Commission appointed by Dr Woodworth is doing good service. A circular informs us that the results of the investigations will be presented at the forthcoming meeting of the American Public Health Association, to be held in Richmond. This is a very proper way of bringing the subject before the people, and we trust that the discussion and papers will be brief and to the point. It is quite certain that the audience will be large and respectfully attentive. We understand that the principal business of the Association during its coming session will be devoted to the subject of the report.

#### CLINICAL MATERIAL.

THE medical colleges in this and other cities are in full operation, and the demand for clinical material will doubtless be active enough to affect the fee market and to discourage the young and hopeful practitioner.

**CONTAGIOUSNESS OF PHTHISIS.**—Dr. Tappeiner has proved by experiments in Buhl's laboratory, at Monaco, that phthisis is contagious. He mixed the sputum of consumptives with water, and made five dogs inhale the mixture in the form of spray. Two of the dogs were also made to swallow a portion. After a lapse of six weeks the dogs were killed. They presented a general miliary tuberculosis of lungs, liver and kidneys, and, in the two who had swallowed the matter, of the digestive apparatus also. Carmin, which had been mixed with the inhaled liquid, was found in the pulmonary cells. It is suggested that these experiments are an indication that the air of badly ventilated apartments occupied by phthisical patients may become dangerous to healthy persons.—*The Hospital Gazette*, etc.



## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, September 24, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### ENTIRE SCALP DETACHED BY MACHINERY—AN IMMENSE GRANULATING SURFACE.

DR. FINNELL presented on behalf of a candidate the entire scalp, with hair attached, which had been torn by machinery from a young woman aged 28 years. While on a visit to an oleo-margarine factory she became interested in a churning machine operated by steam. Immediately behind her head was a rapidly revolving horizontal shaft two and a half inches in diameter. For some reason she drew back her head when her luxuriant and strong hair coming in contact with the shaft, was wound around it with lightning rapidity, jerking, rather than tearing off, in one piece the entire scalp, skin of forehead, and left eyebrow, leaving the cranium denuded to the periosteum, and exposing the temporal muscles, the upper portions of the orbicularis, and the occipital insertion of the complexus and splenius muscles. The scalp whirled with the shaft while the woman fell to the floor grasping her denuded head with her hands black and greasy from contact with the shaft, which she had first seized to save herself. The patient was seen soon after the accident and was apparently suffering very little from shock. In addition to the injuries already described, it was found that the left ear was so torn that it hung to the side of the head by a mere strip of skin. The scalp measured twenty-four inches in circumference, to which was attached the dark-brown hair thirty-two inches long.

At first it was concluded to replace the scalp and trust to ultimate union of the parts, but this idea was abandoned on account of the impossibility of removing the large quantity of blackened grease which smeared the raw surface. Consequently the wound has been left to granulate with a view of skin transplantation in the future.

Dr. Finnell asked what would be the proper time to commence grafting.

Dr. ABRE referred to a similar case which occurred four years ago, and in which the same extent of scalp was torn off. In that instance the girl was leaning over a revolving horizontal shaft, when her curls caught, with the result as mentioned. In the course of three months after the accident, granulations extended over the entire scalp, but it was not until a year had elapsed that these granulations were in a condition to receive the grafts. It was found that success attended those efforts only which were made at the cicatricial margins. Any distant remove from the latter always resulted in failure. The pieces of skin were the size of a canary seed, and numbered in all about 12,000. Four years elapsed before the healing process was completed.

Dr. PETERS referred to the case of a waiter at one of the large club-houses, who was partially scalped by a falling cornice. The flaps, which were of course attached, were promptly placed in position, a few sutures and a bandage applied, and the parts healed entirely in a few days.

#### TUMOR OF CHOROID PLEXUS IN A HORSE.

DR. LIAUTARD presented a tumor removed post-mortem from the choroid plexus of a horse aged

nine years. The animal had been purchased for business purposes on the 8th of August last. On the day following, the new owner noticed that the animal was ill, and at 3 A.M. of August 10th was apparently unable to rise. Dr. L. endeavored to get the animal upon his feet, but only partially succeeded, as there appeared to be a partial paralysis of the posterior extremities. When helped to stand the animal would fall backwards upon his haunches and roll over to one side. In a very short time he became comatose and died. The autopsy revealed the tumor presented to the Society. Dr. L. remarked that during life the animal exhibited some of the symptoms of the peculiar brain trouble mentioned, so far as difficulty of chewing, stupidity in the stall, and inability to back were concerned. The tumor was, on motion, referred to the Microscopical Committee.

The case had some medico-legal importance, inasmuch as the animal was not (at the time of the sale) technically sound, as represented.

#### A "CREAKING" SOUND IN PLEURO-PNEUMONIA.

DR. LEWIS SMITH presented the lungs of an infant, who died at the age of five months. It had been bottle-fed until the age of three months, after which it was wet-nursed. About September 10th, a slight cough made its appearance, to which, however, but little attention was paid. There was a slight elevation of temperature, but no increased acceleration of respiratory movements. On the 14th there began to be a considerable amount of dyspnea, some fever, and rapid pulse, but there was no dulness on percussion. On the 15th there was a marked respiratory moan, dyspnea, and a prolonged respiratory murmur. The diagnosis made was that of pleuro-pneumonia. On the following day the temperature in the rectum was 101° F., while the dulness on the right side was quite pronounced. Dr. S. did not see the patient until midnight of the 15th, when, in addition to the auscultatory signs noted, he discovered a marked and peculiar "creaking" sound on inspiration—a sound resembling precisely that produced by the bending of thick, new leather. Dr. S. thought that there was some doubt as to the exact manner this sound was produced. On the 16th the temperature was 102°, the respiration 44, and pulse, 140, the creaking sound continuing. Death occurred in the course of the day.

At the autopsy there was quite an amount of fibrinous exudation over the posterior part of the right lung, at the point where the "creaking" sound was produced. As usual with young infants under such circumstances, the surface of the opposite lung was the seat of a fibrinous exudation.

Dr. ROBINSON thought that practically no real distinction could be made between the "creaking" sound spoken of, and a variety of the friction sound, which would naturally be associated with such lesions.

#### LOCALIZED FIBRINOUS INDURATION OF THE STOMACH.

DR. BLUMENTHAL exhibited the stomach removed from a spare-built man aged sixty-two years. Although suffering from a cough for twenty years, he was never confined to the house in consequence of it, much less to his bed. There was no expectoration with this cough. For the past twelve or fifteen months the cough harassed him very much, and when Dr. B. was called to see him he was under treatment for tubercular disease. Dr. B., after a thorough physical examination, could not agree on such a diagnosis, but, on the contrary, decided the case to be one of chronic broncho-pneumonia. He, however, lost flesh, and his cough was very troublesome. The chest was much con-

tracted. His digestion was fair, and he was a small eater. He had been sent to the South, where, after a sojourn of four months, he came back almost free from cough. At this point in his history he complained of a swelling in the neighborhood of his umbilicus, three inches to the left of the latter and three inches wide, but as he had several small fatty tumors over his body no special attention was paid to the circumstance. More particular attention was paid to the growth afterwards, and a consultation was held with a view of determining its true character. It was accordingly seen by another medical gentleman, who made the diagnosis of cancer of the pancreas. Dr. B. did not agree in the opinion, as the patient had none of the constitutional symptoms which belonged to so grave a disease. Within a few months afterwards, the patient was troubled with acid eructations, and occasionally with vomiting. Finally a diarrhoea occurred which rapidly prostrated him, and death occurred during the earlier part of September.

The autopsy was made rather surreptitiously, and was consequently not very satisfactory. On examining the site of the abdominal tumor, no tumor was found. Passing up the hand through a section in the abdominal walls, the pyloric extremity of the stomach, much enlarged, presented itself. On trying to bring this enlargement into view the stomach ruptured. The stomach, part of the pylorus, and part of the transverse colon were removed. The pancreas was found to be of normal size, and a portion of the organ was found attached to the right extremity of the stomach. The contraction, induration, and thickening of the pylorus was the cause of the tumor felt during life, the weight of the tumor causing its dislocation to the situation already noted. The induration was strictly confined to the pylorus. The question arose, in view of the fact that nothing but fibrous tissue was discovered, whether the specimen was really cancerous in character. Dr. Jacobi had hastily examined a portion, and decided that the disease was probably simple fibrous degeneration.

After some remarks from several members concerning the rarity of such an affection, the specimen was referred to the Microscopical Committee.

DR. PETERS remarked that among the first specimens presented to the Society in 1844 was one of fibrous degeneration of the stomach exhibited by himself. He believed that Dr. Loomis had also presented a similar specimen. In reference to Dr. Blumenthal's case, he expressed his surprise that with such a small pylorus there should not have been more vomiting, or a greater distention of the stomach. He mentioned a case in point in which there was constriction of the pylorus with the usual symptom of vomiting. All of a sudden the latter symptom ceased and the patient complained of great distress from distention and from an inability to turn over. Finally, at the end of four or five days, an enormous quantity of accumulated food was vomited.

DR. FINNELL remarked that general fibrous degeneration of the stomach was very common, but he always associated a localized deposit in the neighborhood of the pylorus with malignant disease.

On motion, the specimen was referred to the Committee on Microscopy.

#### CANCER OF THE RECTUM—EXTIRPATION.

DR. L. A. STIMSON presented two specimens of cancer of the rectum, removed by operation, remarking that they served to illustrate different points in the history of the disease. Both patients were males. The first suffered from obstruction of the rectum for six months,

during which time the disease causing it had made very rapid progress. A tumor was found just within the anus, extending upwards four inches, involving almost the entire periphery, and for the most part situated on the front portion of the gut. The latter circumstance explained a difficulty in separating the growth from the prostate. A similar difficulty was experienced posteriorly in isolating the gut from a mass of firm fibrous tissue up in the concavity of the sacrum. Four inches of the gut were removed. There was subsequently considerable tension at the seat of the sutures, which necessitated their removal. On the return of Dr. Stimson from the country, three weeks after, the wound was suppurating freely. On examination, three small nodules of suspicious induration were discovered in the space between the separated portions of the gut anteriorly.

The second case was one of tumor of the posterior wall of the rectum of two years' standing, of slow growth, and limited to 2½ inches of the posterior surface of the gut. Notwithstanding the period of its growth, there was no infiltration of the underlying tissue. The posterior portion of the gut was only removed, the edges of the sound parts being stitched together in the form of a letter T.

In conclusion, Dr. Stimson expressed the opinion that in cases in which there was much infiltration and rigidity, and much obstruction, the simple removal of the disease was all that was required, the extirpation of the entire cylinder being unnecessary.

### THE PHILADELPHIA MEDICAL SOCIETIES.

#### *An Abstract of their September Meetings.*

(Prepared for THE MEDICAL RECORD.)

#### THE OBSTETRICAL SOCIETY.

THE Society was called to order at 8.15 P.M., Thursday, September 5th. DR. RICHARD A. CLEEMANN, the Vice-President, in the chair.

#### NEW CLAMP SUTURE.

DR. A. H. SMITH exhibited several pairs of steel canulas, to illustrate his "*new clamp suture*," and demonstrated its usefulness in holding together broad, denuded surfaces, as in the operation for laceration of the female perineum. This suture is a modification of one proposed by H. L. Thomas, M.D., of Richmond, Va., in *Hays' Journal* for October, 1877. Dr. Smith also exhibited a "*self-retaining vulvar retractor*," and a lance-headed tenotome; the latter the doctor had used for dissecting off a very thin entire flap in cases requiring denudation of a large vascular surface.

DR. WM. GOODELL had had such good results from the use of the interrupted wire suture that he did not feel the need of anything better. He would adopt the device of Dr. Smith if future failures to obtain satisfactory union should make him desire a change. He thought the device subject to two objections: first, it would be necessary, if one pair of tubes were used, to use another pair for each deep stitch; second, the canulas were much longer than any wire suture that would ever be used, and they would be liable to cause sinuses, or fistulae, that would be slow to heal.

DR. SMITH replied that, as the inner ends of the tubes were entirely buried in tissue, no fistula could be produced. The tubes should be removed early—say about three days after their insertion. If this



were done, their tract would heal like that of the wire suture.

Dr. CHAS. H. THOMAS spoke of a set of three specula, which had been introduced into Philadelphia about two years ago by Dr. Higbee, of Springfield, Mass. In common with the instrument exhibited by Dr. Smith, they had short blades, small vulvar with great vaginal expansion, and were self-retaining.

Dr. JOHN FORSYTH MEIGS read a paper on a case of atelectasis pulmonum, in an infant four weeks old, in which the symptoms simulated those of opium-poisoning. The attack was the result of severe and prolonged crying from intestinal pain. It was very successfully treated by complete rest and position.

#### ATALECTASIS PRODUCED BY A BATH.

Dr. SAVERY spoke of a case of atelectasis pulmonum in a child eight days old. It seemed to be the direct consequence of a cold bath. The child became cyanotic, the pulse weak, with some muscular spasm. Death resulted in twelve hours.

Dr. WALKER, during an epidemic of measles, had one case in which there was a very slight eruption which retroceded on the next day. A hot bath was given to bring it out again. This was quickly followed by collapse of the lung and death. There had been some bronchial catarrh before the advent of the measles.

Dr. JOHN F. MEIGS wished again to call attention to the interesting points of his case, which were, in the first place, the remarkable resemblance of the symptoms to those of opium-poisoning; and in the second place, the cause of the attack, which was the prolonged crying. The long-continued violent use of the muscles of respiration had without doubt fatigued them; the result was muscular spasm of some, complete relaxation of others, and collapse of the lung from its own elasticity.

Dr. A. H. SMITH had seen cases of atelectasis pulmonum, the result of sudden shock, but had never thought of the explanation of the condition given by Dr. Meigs.

Dr. PAUL F. MUNDÉ, of New York City, presented to the Society a reprint from the *Trans. Amer. Gynec. Soc.*, vol. ii., of his paper on "The Value of Electrolysis in the Treatment of Ovarian Tumors."

The Society then proceeded to the transaction of its private business.

#### THE PATHOLOGICAL SOCIETY.

The Society met on Thursday, September 12th, at 8 P.M., Dr. H. LENOX HODGE, President, in the chair.

#### NEURALGIC TUMOR OF SKIN.

Dr. H. LENOX HODGE presented a neuralgic tumor of the skin, which had been removed in April last from the forearm of a man forty-eight years of age. Since that time there had been no return of the growth and no pain felt. The tumor was rounded in shape, six-eighths of an inch in diameter at its base, and five-eighths of an inch in height. It was of a bluish color, and extremely sensitive to the touch—the slightest pressure bringing on a fainting-spell. The man first noticed its presence sixteen to seventeen years ago on his forearm, near the olecranon. At that time it was not painful. The pain began seven years ago, and has been on the steady increase ever since. The tumor has been constantly increasing in size, but has contracted no adhesions. It probably originally arose in the connective tissue. In spite of

the pain, no connection could be found with any nerve-fibre. The tumor probably pressed on some neighboring fibre.

Dr. CARL SEILER had examined the growth under a microscope, and reported that it presented on section a net-work of well-developed connective tissue, the meshes of which were irregular as to size and shape, and filled with red and white corpuscles. The derm and epiderm covering the growth were atrophied. The structure of the tumor resembled the corpus cavernosum of the penis.

#### MECHANICAL MICROTOME.

Dr. CARL SEILER exhibited to the members a mechanical microtome of novel construction, designed for the purpose of making large, thin, and even sections of hardened tissues, and said that a mechanical microtome in which the knife was held firmly by parts of the instrument itself had been a desideratum for a long time, and many workers had designed and constructed such contrivances, but all of them had started with the erroneous idea that a slide upon which the knife is fastened, and which runs at an acute angle to the imbedded tissue, would carry the knife through the tissue with a sliding motion, such as is produced by the hand in making a section. That this, however, was not so, but that by means of such a slide the knife acted as a carpenter's plane, pushing through the tissues like a chisel, instead of cutting like a knife. By analyzing the motion of the arms in making thin sections, Dr. Seiler came to the conclusion that if the knife were attached to two arms which were allowed to rotate upon fixed pivots, fastened to the section-cutter, it would pass through the tissue, each point of the cutting edge describing a curve whose radii were the two arms carrying the knife.

That the principle here employed was identical with that upon which the parallel rule was constructed, one blade of which being fixed, the other moves to and fro in the same manner as the knife moved in this case.

After constructing a rough model of the apparatus Dr. Seiler asked his friend, Mr. T. Lentmayer, to construct the instrument for him. In doing so, he, Mr. Lentmayer, had added many improvements in the motion and in the adjustment for different inclinations of the knife, which insured a perfect working of the microtome, even in the hands of unskilled persons. The specimens cut with this machine, which the doctor had brought to show what could be accomplished in the way of large, thin sections, were, viz.: a longitudinal section of the leg of a five months fœtus from the knee downwards, measuring two inches in length and three-quarters of an inch in width at the widest part; a section of an epithelioma from the cheek, one and a half inches long by three-quarters of an inch in width; and a longitudinal section through the upper and lower maxilla of a five months fœtus, taking in the turbinated bone, and measuring one and a half by one and a quarter inches.

That it was needless to point out the great advantage of large sections, especially of pathological tissues, and that there was no doubt that when the instrument came into general use there would be more and better microscopical examination of tissues than at present, because many who would gladly work with the microscope were deterred from so doing by the difficulty of making their sections.

The Society then adjourned.

The Society met on Thursday evening, September 26th, Dr. H. Lenox Hodge, President, in the chair.

## SIX FATAL CASES OF STRICTURE.

DR. JOHN H. BRINTON presented specimens from six fatal cases of stricture. In four of these cases the treatment had been by gradual dilatation, and in two by internal urethrotomy. All these deaths had occurred in hospital practice. Dr. B. had never lost a case in private practice. From the fifty odd cases of stricture which were tabulated some very interesting statistical conclusions were drawn. In perfect accordance with the views of Sir Henry Thompson, Dr. Brinton had found that two thirds of the entire number of strictures were located in the bulbo-membranous portion of the urethra. The average number of years intervening between the attack of gonorrhoea and the appearance of the stricture was found to be six. In three out of the seven cases where divulsion had been performed there had been well-marked urethral fever. In all of the internal urethrotomy cases—four—there had been urethral fever. So, too, in all of those cases in which external perineal section had been performed, viz., four: but of twenty-two cases of gradual dilatation but eight had suffered from urethral fever.

Dr. S. W. GROSS was of the opinion that it was only in hospital practice that death followed the operation for stricture. Hospital patients with diseases of the genito-urinary apparatus were, as a general rule, entirely broken down in constitution before admission; but he had never had a single death from this cause in private practice. From close observation of the cases under his charge he had been able to draw the following interesting conclusions, viz.: That when a stricture was found in the glandular portion of the urethra there were very likely to be more obstructions further back; that protracted gonorrhoea was the most frequent cause of stricture; that divulsion and perineal section were the most fatal of all operations for the relief of stricture; that gradual dilatation was only a palliative measure, whereas strictures could be positively cured by internal urethrotomy.

Dr. CHARLES W. HUNTER had never known a case to be cured by gradual dilatation. He wished to know if urethral fever always followed the passage of urine after an operation.

To this question Dr. Brinton answered that he had known urethral fever to occur both following and also entirely irrespective of the passage of urine.

Dr. H. LENOX HODGE knew of cases where gradual dilatation had been followed by entire recovery.

Dr. HUNTER thought that the cicatrix following urethrotomy would tend to contract like the cicatrices of burns.

Dr. EDWARD O. SHAKESPEARE had examined the structure of a divided stricture microscopically in company with Dr. D. Hayes Agnew, and had found an unusual amount of elastic fibres in the cicatrix, also that in cicatrices of the skin there was little or no elastic tissue.

The Society then proceeded to its private business.

## THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

The Society met on Wednesday, Sept. 11th, at eight P.M. The President being unavoidably absent, Dr. J. Solis Cohen occupied the chair.

## UTERINE SURGERY.

Dr. W. D. R. BLACKWOOD read a paper on "Who is to Blame?" in which he sought to prove by various cases in his own practice, that gynecological operations are performed entirely too frequently nowadays, and in very many instances without proper

cause. The cases recited to strengthen his assertion were four, in which women had been operated upon for sterility by eminent surgeons of this city and New York, whereas the fault lay entirely with the husbands.

After the reading of the above paper, a set of resolutions, which had been drawn up in commemoration of Dr. W. L. Atlee, were offered, and Dr. S. D. Gross spoke at some length of the deceased.

## MOUTH-DISTENDER.

Dr. I. SOLIS COHEN exhibited several instruments: a "mouth-distender," a flexible probe, and an addition to his tracheotomy tube.

The Society then adjourned.

The Society met on Wednesday, Sept. 25th, at eight P.M., the President, Dr. H. H. Smith, in the chair.

## PSEUDO-MEMBRANOUS LARYNGITIS.

Dr. CHARLES B. VANCREDE read a paper "On the Course, Pathology, and Treatment of Pseudo-membranous Laryngitis." The paper was mainly directed to the solution of the questions: "Why and when tracheotomy should be performed?" His remarks extended equally to pseudo-membranous laryngitis and diphtheritic croup.

The conclusions drawn were, viz.: 1. That tracheotomy does not in itself appreciably add to the gravity of the case, as is shown by the results of the same operation when done for the removal of foreign bodies. 2. That tracheotomy does not cause the broncho-pneumonia, so often occurring after the operation, but, on the contrary, removes all the mechanical causes which both chiefly produce and, when originated, aggravate this complication. 3. That when all other remedies fail to afford relief, the case progressing from bad to worse, and when nothing beyond the main divisions of the bronchi seem to be involved, it is *our imperative duty* to perform tracheotomy. 4. That even when, from the auscultatory signs, the lungs seem to be involved, if the other symptoms do not indicate an unusually favorable condition, death being clearly imminent from suffocation and not from deficient aeration caused by pseudo-membranous bronchitis, the operation should not be refused, since auscultatory signs have been proven very uncertain *before* tracheotomy. 5. That all these conclusions are propounded with these two provisos, viz., that the operation be skilfully performed, and, *above all*, that the after-treatment be properly conducted; otherwise the operation, instead of affording relief, hastens death.

The Society then adjourned.

W. S. OLIVER, M.D., Surgeon-Major, R.A., gives the following process for the diagnosis of *thoracic aneurism*: "Place the patient in the erect position, direct him to close his mouth and elevate his chin to the fullest extent, then grasp the cricoid cartilage between the finger and thumb, and use gentle upward pressure upon it, when, if dilatation or aneurism exist, the pulsation of the aorta [shall] be distinctively felt, transmitted through the trachea to the hand. The act of examination [shall] increase laryngeal distress should this accompany the disease."

TREATMENT OF AORTIC ANEURISM.—*The British Medical Journal*, Sept. 21st, says that Drs. Proust and Dujardin-Beaumetz have lately reported "six moderately successful" cases of aortic aneurism treated by electrolysis after the manner advocated by Dr. Charles Bastian, of London.



## Correspondence.

PARALYSIS OF THE DIAPHRAGM vs.  
HAY FEVER.

TO THE EDITOR OF THE MEDICAL RECORD:

SIR:—In THE MEDICAL RECORD of October 12th, Dr. Wm. C. Wey seems to discover "an obscure and rare form of hay fever" in a case reported by me September 20th as one of paralysis of the diaphragm. Even with the light which Dr W. reflects upon the case, I am not prepared to accept his diagnosis.

I am somewhat familiar with hay fever in its varied manifestations, and I fail to discover in the case of Mr. A. any features distinctive of that disease. I may have failed to clearly portray the real condition of my patient and his various symptoms as he actually appeared, and thus unwittingly I may have misled the reader by want of clearness or fulness of description.

We are accustomed to number among the active causes of hay fever the dust of ipecac, mustard, emanations from feathers, the odor of roses, pollen from *ambrosia artemisiifolia* and other plants, emanations from hay, etc., and their influence seems to be exerted upon and through the mucous membrane lining the entrances to the air-passages.

In hay fever, hay asthma, June cold, rose cold, catarrhus æstivus, or catarrhus autumnalis, one or more of the following symptoms, I believe, are invariably present at some stage of the disease: great sensitiveness of the nasal mucous membrane, persistent stertoration, coryza, bronchitis, asthma, naso-pharyngeal catarrh, marked suffusion of the eyes, photophobia, and usually tumefaction of the lids. In the case that I reported, at no time, during nor about the period of the attack, was one of these symptoms present. It seems to me that such a case of *hay fever* is like "Hamlet" with the Prince of Denmark left out.

It is noticeable that Dr. Wey's case of a supposed similar type was attended with catarrhal symptoms, even in the season when from a sudden and severe onset, or the prompt and efficient treatment, it was wholly abated. If also it be true, as stated by some very good authorities, that hay fever occurs rarely, if at all, at the South, the fact that Mr. A.'s first attack occurred while a resident of one of the Southern States is a presumption against the diagnosis suggested by Dr. Wey.

Lastly, I know of no form of hay fever that so affects the respiratory system that upon *inspiration* the epigastric and hypochondriac regions are depressed or contracted, the converse taking place during expiration. These symptoms in themselves alone are almost certainly diagnostic of paralysis of the diaphragm.

BENJ. EDSON, M.D.

| BROOKLYN, OCT. 14, 1878.

THE LOWER FUNGI AND INFECTIOUS  
DISEASES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Possibly some of your readers may not have met with C. von Naegeli's recent work on the lower fungi in their relations to infectious diseases and hygiene, for a careful analysis of which we are indebted to the *Neue Freie Presse*\*. Such as have not will, I am sure, be glad to see a brief summary of the views of so prominent an authority, especially as they

are in many respects so directly opposed to those now generally received.

To begin with, he declares that volatile matters (gases), and likewise inorganic chemical compounds, cannot be active as agents of infection; for in the one case their rapid diffusibility would very soon render them inoperative, and in the other the exceeding smallness of the doses, millions of times less than those of the most active poisons, would not be sufficient for infection. The lower organisms of the class of fungi must be indicated as the agents in the causation and diffusion of various infectious diseases, such as malarial fever, cholera, typhoid, diphtheria, smallpox, etc., and these under the highest powers of the microscope appear merely as granules or rods without further structure, and their weight is estimated at the thirty thousand millionth part of a milligramme. In spite of their infinitesimal size, however, it would be a fatal error to deny them the properties of solid bodies, or to forget the simple physical laws, according to which gases, owing to the mutual repulsion of their molecules, tend to diffusion, while even the smallest solid bodies seek the substratum, and can be only mechanically dislodged.

Now these fungi require certain conditions to keep them alive and in good health; among the most important is water, and water which does not contain more than a certain small percentage of foreign matter. If these conditions are wanting, their activity is lost for the time, but can be revived again, after an indefinite period, under favorable surroundings. A temperature of 104° F. suits them best; they may be frozen without destroying them, but a boiling heat kills them.

Naegeli makes three principal classes of infectious diseases, viz.: the contagious, the miasmatic, and the septic, and maintains that these are not due to as many different varieties of fungi, as is generally taught, but to different manifestations of activity in like fungi under varying conditions of location and nutrition. The fungus of contagion must be introduced into the healthy body either by immediate contact, or through the agency of water or air. The skin offers insuperable obstacles to its entrance, and we are thrown back upon the air-passages and the alimentary canal. Doubtless, he says, we take into our stomachs immense quantities of fungi in certain articles of food: but their harmlessness needs no further proof than the impunity with which persons in all ranks of life consume gamy meat, Roquefort cheese, and other articles in an advanced stage of decomposition. Then, in regard to water: he maintains that water is wholly innocent of conveying infectious diseases, even when very impure. The impurities consist of the same putridities which we take in food in much larger quantities; and even if miasm-fungi should so enter the system, they lose their infective qualities in the foreign elements and meet with such unfavorable conditions in the alimentary canal that they can do no harm. As examples, he refers to the great districts where infectious diseases are unknown, and where still the inhabitants use exclusively putrid drinking-water. He regards it as an error to suppose that filtering water improves its hygienic qualities; for, while certain tangible impurities are arrested, the invisible, tasteless, odorless miasm-fungi pass through any filter. Turning his attention then to the air, he declares that we possess no test of the presence of miasmata in the air which is appreciable by our senses. A bad smell is no proof of their existence. In fact, we are justified in assuming that air is dangerous only when it comes from localities known to be miasmatic, and when we know that the fungi are in a condition to be

\* Die niederen Pilze in ihren Beziehungen zu den Infectiouskrankheiten und der Gesundheitspflege. München. R. Oldenbourg, 1877.

taken up and carried away by the air. Hygienically considered, the important conditions for the production of miasm-fungi are present only when strata of earth which have been long wetted by super- or subterranean water are exposed to the air and become dry. As long as it remains wet, the most miasmatic soil cannot infect the air which passes over it, because the fungi cannot escape. The drought following upon the rainy season in the tropics, on the other hand, supplies all the necessary conditions to fill the air with miasmata. Hence the fatality of an atmosphere so filled with these spores, for the lungs furnish a most accessible and extensive surface for their ready absorption into the blood, and then everything is favorable for their rapid and destructive development.

The practical deductions which follow legitimately from the foregoing premises are then as follows: we cannot destroy the fungi, in most cases, because of the difficulties in the way of using the necessary chemicals or high temperature; but we can confine them to the places where they originate and prevent their diffusion. Let the impregnated soil be kept wet, let the excreta of patients with infectious diseases be not allowed to become dry, and let dead bodies be at once wrapped in wet cloths. Various other suggestions as to matters of municipal and domestic hygiene are based upon the same principle of confining and controlling the diffusion of the fungi and their spores by keeping the places where they are known to exist in a state of moisture, whether it be by the ground water under a city, the sprinkling of its streets, or whether the fungi are believed to make their way in currents of air through the walls of our houses when these are thoroughly dry. The same line of argument furnishes our author with a ready explanation of the alleged greater healthfulness of damp dwellings than dry during the prevalence of epidemics; likewise in regard to those Italian cities which are renowned for the health of their inhabitants, while their filth would seem capable of furnishing all possible miasmata.

Imperfect as the above outline of Naegeli's views certainly is, it may suggest new points of inquiry to those specially interested in this subject, none of whom, I imagine, would claim that many questions connected with the pathological relations of fungi are not still *sub judice*.

J. H. EMERSON.

81 MADISON AVENUE, ARG. 14, 1878.

## PROFESSIONAL SECRETS AND PROFESSIONAL OBLIGATIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

I FIND such a difference of opinion between medical men as to the responsibility of a physician to his patient in certain circumstances, that I am induced to ask for a brief space in the columns of THE RECORD, to refer to the subject.

It is a question of vital importance, and should be seriously considered by those whose lives are devoted to the cure and *prevention* of disease.

A young man, while under treatment for constitutional syphilis, brought to his physician a lady suffering from some slight temporary ailment. Upon leaving the office he remarked, in effect, "Doctor, I wish you to cure this young lady soon, as we expect to be married shortly." The doctor took occasion, privately, to remonstrate very emphatically with the young man, informing him of the evil consequences which were sure to follow. The reply was, "I cannot

help it; the invitations are out, and I cannot withdraw."

The remonstrance was unheeded, the marriage accomplished, and now "the most beautiful young lady" the physician had ever seen is suffering with syphilis in a severe form, the doctor having reason to fear grave, and perhaps fatal, visceral complications. Thus, through ignorance on the part of the lady, criminality on the part of the man, and "*professional obligations*" on the part of the medical adviser, was this work accomplished.

I pass, without comment, the "ignorance" and the "criminality," to dwell briefly upon the "professional obligations." The physician, one of large and long experience, claims that he was not obliged to inform his lady patient of the dangers into which she was ignorantly rushing, but, on the contrary, that his *obligations of secrecy* to his syphilitic patient prevented his going any farther than an earnest remonstrance. This question concerns more than these three individuals; it is as far-reaching as the healing art. Any physician may be called upon in a similar case to decide what course to pursue, and I hold that he should not, *cannot*, shield himself from responsibility behind a false interpretation of medical ethics. He *is responsible*, notwithstanding his asseverations to the contrary, for the terrible results. The unprincipled wretch, it is reasonable to suppose, could not have appreciated the full extent of the misery his act would bring forth, and thus far charity would constrain us to free him from responsibility. Not so with the physician; he fully appreciated and clearly foresaw the dreadful consequences as only an intelligent medical man could, and I submit that it was his imperative duty to have *insisted* upon a postponement of the marriage until it could have been accomplished with safety, or, in case of refusal, *to have warned the unsuspecting victim of the evil results of such union*.

W.

## CHLORAMYL AND CHLOROFORM NARCOSIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The communication in your number of October 5, 1878, from Dr. George E. Sanford, is of decided interest, both as affording a hope that the dangers of chloroform may be diminished, and also as related to one of the most interesting branches of practical medicine. I refer to the simultaneous employment of antagonistic drugs. Those who have read Fothergill's recent work on the Antagonism of Medicines will be impressed with the truth of the author's remark that this counteraction of medicinal agents "promises to be the most potent and withal most precise subject connected with therapeutics."

In a paper read before the Southern Michigan Medical Association, July 13, 1875, by W. N. Smart, M.D., of Hudson, Michigan, he thus refers to an experiment in which chloroform and nitrite of amyl were administered together, and which may be interesting in this connection:

"Gave a half-grown kitten a *mixed vapor* of chloroform and nitrite of amyl, containing about forty-nine parts of the former to one of the latter. I gave this by placing chloroform and amyl in the above proportion, in a thick cloth sack, which was drawn over the head and held close around the neck, the chloroform and amyl being renewed several times, in order to insure a strong vapor. The effect produced by breathing this vapor for fifteen minutes is a rapid, though deep inspiration; a rapid and rather feeble



action of the heart; an inability to co-ordinate movements; a very slight degree of anesthesia, and a species of intoxication resembling that produced by alcohol."

How far chloramyl will answer as a safe substitute for chloroform can only be determined by experiment. Since it is estimated that one death occurs in about twenty-five or twenty-seven hundred administrations of chloroform, it is evident that some time must elapse before the comparative merits of any new anæsthetic can be considered as established. For the present it seems to me that humanity and science alike require that when chloroform is used as an anæsthetic, the nitrite of amyl should be at hand as one of the remedies whose efficiency is to be tested in case of impending danger.

F. A. BURRALL, M.D.

43 WEST SEVENTEENTH STREET.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 6th to October 12th, 1878.*

WHITEHEAD, W. E., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, and to report by letter to the Surgeon-General. S. O. 218, A. G. O., Oct. 10, 1878.

STEINMETZ, W. R., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, and, upon expiration of his present leave of absence, to report by letter to the Surgeon-General. S. O. 218, C. S., A. G. O.

HAVARD, V., 1st Lieut. and Asst. Surgeon. To report in person to the Commanding General, Dept. of the South, for assignment to duty. S. O. 218, C. S., A. G. O.

SEMIG, B. G., 1st Lieut. and Asst. Surgeon. Relieved from duty in Mil. Div. of the Pacific, to proceed to New York City, and, on arrival, report by letter to the Surgeon-General. S. O. 217, A. G. O., Oct. 9, 1878.

CUNNINGHAM, T. A., 1st Lieut. and Asst. Surgeon. Leave of absence extended one month. S. O. 81, Div. of the Missouri, Oct. 8, 1878.

### Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 12, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Oct. 5, 1878.  | 0             | 30             | 52             | 0                          | 1        | 31          | 0          | 0             |
| Oct. 12, 1878. | 0             | 25             | 43             | 4                          | 0        | 35          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., Oct. 12, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of Sanitary Reports received during the past week under the National Quarantine Act:

*New Orleans, La.*—There were 988 cases of yellow fever and 340 deaths during the week ending yesterday afternoon. For the last twenty-four hours, 164

cases and 49 deaths. The disease now prevails throughout the city. Total cases, 11,206; total deaths, 3,400.

*Port Eads, La.*—One death from yellow fever occurred in the past week.

*Baton Rouge, La.*—397 cases of yellow fever and 35 deaths for the week ending 9 A.M. yesterday. Total cases, 1,869; deaths, 113.

*Morgan City, La.*—During the week ending yesterday there were 128 cases of yellow fever and 23 deaths. Total cases, 428; deaths, 71.

*Ocean Springs, Miss.*—25 new cases of yellow fever and 6 deaths for the week ending at noon yesterday. Total cases, 103; deaths, 28.

*Pass Christian, Miss.*—For the past week there were 35 cases of yellow fever and 3 deaths. Total cases, 94; deaths, 9.

*Bay St. Louis, Miss.*—During the past two weeks ending yesterday evening there were 208 cases of yellow fever and 36 deaths. Total cases, 286; deaths, 56.

*Biloxi, Miss.*—From commencement of outbreak of yellow fever to the 11th inst. there have been 275 cases and 28 deaths.

*Port Gibson, Miss.*—The yellow fever has spread into the country; at least thirty plantations surrounding Port Gibson are now infected. The deaths to date are estimated at 190.

*Friar's Point, Miss.*—There have been 13 cases of yellow fever and 4 deaths to yesterday evening.

*Crystal Springs, Miss.*—Total cases of yellow fever to yesterday evening, 81; deaths, 36. The fever first appeared at Dry Grove neighborhood, twelve miles northwest of Crystal Springs.

*Hernando, Miss.*—The first case of yellow fever—a refugee from Memphis—occurred August 31st. 23 cases and 10 deaths during the past week. Total cases to yesterday evening, 83; deaths, 33.

*Grenada, Miss.*—6 cases of yellow fever and 2 deaths for the past week. Corrected total deaths to yesterday evening, 323.

*Spring Hill, Grenada Co., Miss.*—15 cases of yellow fever and 6 deaths to yesterday. First case Oct. 1st.

*Vicksburg, Miss.*—For the past week there were 33 deaths from yellow fever. 96 deaths have occurred in Warren County, outside of Vicksburg. Total deaths in city and county, 978.

*Holly Springs, Miss.*—Total cases of yellow fever to Oct. 8th, 1,064; total deaths to that date, 241.

*Jackson, Miss.*—Between 30 and 40 cases of yellow fever reported to Oct. 5th.

*Memphis, Tenn.*—There were 157 deaths from yellow fever for the week ending the evening of the 10th inst. Total deaths, 2,784.

*Brownsville, Tenn.*—139 cases of yellow fever and 35 deaths for the week ending yesterday afternoon. Total cases, 413; deaths, 121.

*Paris, Tenn.*—The first case of yellow fever among the inhabitants occurred Sept. 6th. The first case of the fever among refugees Aug. 23d. Total cases to yesterday evening, 52; deaths, 22.

*Cairo, Ill.*—Total cases of yellow fever to yesterday evening, 31, besides 5 doubtful cases; total deaths, 25. Assistant Surgeon Waldo, of the Marine Hospital Service, taken sick on Thursday, probably with yellow fever.

*St. Louis, Mo.*—No cases of yellow fever in the city. 3 deaths at quarantine during the past week, two of which were refugees. The superintendent of the quarantine station is sick with yellow fever.

*Louisville, Ky.*—For the week ending yesterday evening there were 10 new cases of yellow fever and 8

deaths, of which numbers 9 cases and 7 deaths were among the inhabitants residing in the infected portion of the city referred to in previous reports. Total cases, 112; deaths, 49; of these, 88 cases and 34 deaths were refugees.

*Cincinnati, Ohio.*—No new cases or deaths have occurred since last report up to the 9th inst.

*Mobile, Ala.*—There were 7 cases of yellow fever and 3 deaths since noon of Oct. 4th to the 11th inst. Total cases, 37; deaths, 20.

*Decatur, Ala.*—The first case of yellow fever occurred Sept. 7th. Total cases to yesterday evening, 82; total deaths, 15.

*Key West, Fla.*—Two cases of yellow fever occurred this week, the first since the 21st of September. Total cases, 37; deaths, 16.

*Canton, Miss.*—From Oct. 4th to Oct. 10th there were 90 new cases of yellow fever and 26 deaths. Total cases to that date, 810; deaths, 139.

*Havana, Cuba.*—26 deaths from yellow fever and 3 from small-pox, week ending Oct. 5th.

No reports received from the following places, where yellow fever exists: Greenville, Miss.; Mississippi City, Miss.; Water Valley, Miss.; Chattanooga, Tenn.; Grand Junction, Tenn.; Hickman, Ky.; South Pass, La.; Plaquemine, La., etc.

*South America.*—At Rio de Janeiro there were 3 deaths from yellow fever and 24 from small-pox during the week ending Sept. 19th. Good health prevails in Birraquilla, New Grenada. Advices Sept. 19th.

*Europe.*—In 132 cities and towns of the German Empire, having an aggregate population of 7,376,861, there were 3,787 deaths from all causes for the week ending Sept. 23d, being an annual rate of mortality of 26.7 per 1,000 of the population. Among the deaths reported there were 104 from scarlet fever, 1 from typhus, 104 from diphtheria and croup, and none from small-pox. At Vienna, Austria, during the week ended Sept. 14th, there were 12 deaths from small-pox, 2 from typhus, 3 from scarlet fever, and 12 from diphtheria.

*Africa.*—A dispatch from the U. S. Consulate at Gibraltar, Sept. 23d, states that private advices from Tangier announce 103 deaths from cholera at Casablanca, Morocco, on the 17th of Sept., Moors, Jews, and Christians being attacked by the disease. At Fez the cholera is reported as increasing. Cholera has broken out in several other places in the interior of Morocco. At Mogadore, Morocco, the deaths from hunger and typhus are reported to be from 60 to 70 per day. The hungry Moors attacked the custom house and British and Spanish consulates at that place, and were repulsed with loss.

*Asia.*—31 deaths from cholera in Bombay, week ending Aug. 20th. No deaths from cholera in Calcutta for week ending Aug. 10th.—Jno. M. WOODWORTH, Surgeon-General United States Marine Hospital Service.

TO PHYSICIANS AND OTHERS RESIDING IN THE CITIES AND TOWNS VISITED BY THE YELLOW FEVER.—Dr. Woodworth has also issued the following circular, under date of Oct. 10th:

Acting upon the advice of members of the American Public Health Association, the Surgeon General of the Marine Hospital Service has organized a Commission to gather and record all important facts relating to the commencement and spread of the present epidemic of yellow fever, with the view of establishing truths upon which the theory and practice of prevention of future epidemics may rest.

The gentlemen composing the Commission—Prof. Bemiss, of New Orleans, Dr. Cochran, of Mobile, and Prof. Howard, of Baltimore—have already commenced

their work in New Orleans, and will visit the principal places in which the yellow fever has prevailed.

The cordial co-operation of all who have facts to communicate, bearing upon the subject under investigation, is earnestly solicited for the Commission.

A preliminary report of the facts, gathered up to the 19th day of November next, will be presented to the American Public Health Association, which will convene on that day in the city of Richmond to discuss the report, and to advise the best course to be pursued in concluding the labors of the Commission.

It is not intended to terminate the investigation on the 19th of November, but it is desirable that those interested in public hygiene, in all parts of our country, should meet in council prior to the assembling of Congress, as it is generally believed that legislative action will be promptly taken in reference to preventing future epidemics. The agitation of the public mind upon this important subject is proper and commendable, but herein lies the peril of hasty or not fully-matured legislation, and it is hoped that by the action proposed Congress may have the benefit of the advice of the representative men of sanitary science.

The invitation of the officers and executive committee of the American Public Health Association, extended for the Richmond meeting, is to "medical and sanitary authorities and other citizens who seek to promote the public health." This will afford an opportunity for all who desire to advise in reference to the work in hand.

If the voluntary contributions of money for the expenses of the Commission are sufficient, it is intended to add to the Commission a Sanitary Engineer, a Microscopist, and a Meteorologist.

The first step in the investigation is, as already stated, an examination into the causes of the commencement and spread of the epidemic, now being prosecuted by the Commission.

The second step is the study of the natural history of the disease itself, which will be undertaken if the contributions of money warrant.

It is believed that the study of the treatment of the disease should not be added to the labors of the Commission. The contributions of experience in this direction will doubtless be numerous, and may be properly left to the medical journals of the country and to individual reports.

**DISEASES OF THE SKIN.**—Dr. Bulkley is giving a course of lectures on diseases of the skin in the Pathological Amphitheatre of the New York Hospital, 7 West Fifteenth Street, Wednesday afternoons from 2.30 to 3.30 o'clock. The course will consist of twenty-four lectures, and will be free to students and medical practitioners.

**THE ROLL OF HONOR.**—Additional deaths of medical men from yellow fever have occurred since our last report:

*Memphis, Tenn.*—Oct. 8th, Dr. O. D. Bartholomew, volunteer from Nashville, Tenn.; Oct. 10th, Dr. B. R. Montgomery, volunteer from Chattanooga, Tenn.; Oct. 13th, Dr. J. R. Force, volunteer from Hot Springs, Ark.

*Vicksburg, Miss.*—Oct. 11th, Dr. Hoppoldt, volunteer from Morgantown, N. C.

*Port Gibson, Miss.*—Oct. 9th, Dr. Thomas Young. *Greenville, Miss.*—Oct. 5th, Dr. J. S. McCall, Dr. A. S. Gardine, Dr. William Montgomery.

*Brownsville, Tenn.*—Oct. 8th, Dr. John J. Ware, President of the Board of Health.

*Chattanooga, Tenn.*—Oct. 13th, Dr. E. M. Baird, Dr. R. N. Barr.

Previously reported, 86. Total to date, 92.



## Original Lectures.

## THE LOCAL TREATMENT OF ECZEMA.\*

By HENRY G. PIFFARD, M.D.,

PROFESSOR OF DERMATOLOGY, UNIVERSITY OF THE CITY OF NEW YORK, SURGEON TO THE CHARITY HOSPITAL, ETC., ETC.

ECZEMA is the most frequent, one of the most obstinate, and certainly the most important of all the cutaneous affections. Its successful management requires a judicious combination of internal and external treatment, with, in addition, proper hygienic attention. Of these the hygienic is the simplest in its applications, inasmuch as a clear conception of the nature of the disease immediately suggests the proper rules of diet, exercise, and the like. The internal treatment—that is, the use of drugs, is the most important, but, at the same time, the most intricate portion of the treatment, and will be considered in its details on another occasion. The local treatment stands midway in importance between the internal and hygienic, and midway also as regards simplicity.

The rôle of local treatment is somewhat limited, but if we desire to do our best for the patient, its proper application should not be neglected. In a few cases local treatment alone will succeed in dissipating the lesion, but will not prevent or retard a relapse; in many cases it will materially assist the internal treatment in abridging the duration of the manifestations of the disease, and in a certain number it will modify the subjective phenomena.

Eczema presents many phases varying with the stage, character of the primitive lesion, degree of inflammatory action, individual peculiarity of the patient, complicating circumstances, etc.; but in all of these cases the indications for treatment are so clear that, once rightly appreciated, many of the apparent difficulties disappear.

In no affection with which we are familiar is it so important that the idea of a routine treatment based upon nosology should be abandoned. As regards the internal treatment, it is the *patient*, with all his functional or organic derangements, that demands consideration; in the local treatment it is the cutaneous *lesion* that must be studied and cared for. We must in both cases remember that the conditions actually present in one patient are seldom exactly duplicated in another, and, consequently, that treatment which is best for the first may not, and probably will not, be best for the second. In other words, we must individualize the cases in the strictest manner.

As the present article concerns the lesion only, we will make a brief allusion to the conditions most frequently present, and indicate the principles of treatment that find their application under the varying circumstances of the case.

Every outbreak of eczema commences with a prodromal period of local cutaneous congestion, characterized by heat, redness, slight or almost imperceptible swelling, and certain subjective sensations, which attract attention to the parts. From the appearances alone it will be often difficult to decide what form of cutaneous disease is impending, just as during the first day of an active febrile movement we may be unable to predict the character of the disease that will be developed on the morrow.

This period of congestion is rarely presented to the

eye of the physician, except when it occurs in patients who are already suffering from more advanced eczematous lesions in other parts of the body, and who have already come under treatment for them.

Under these circumstances we have known the application of solid nitrate of silver to cause a disappearance of congestions that we supposed would have otherwise developed into frank eczemas.

This prodromal congestion, if uninterfered with, usually eventuates in some one of the so-called special primary lesions of the disease. These are six in number. In the first place, the active congestion may give place to a passive one of indefinite duration, characterized by redness, and often a trace of fine desquamation with possibly a little occasional moisture, alternating with the more usual dryness. These cases were formerly classed as chronic erythematata, but a closer study has convinced most dermatologists that they are essentially eczematata. Little attention has been paid to this form in the text-books, but an admirable delineation of the affection will be found in Dr. Dühring's Atlas. The congestion is usually accompanied with a moderate amount of subjective heat, or itching. This form of eczema is more frequent on the face than elsewhere. The most effective treatment for this variety is internal, but still a great deal of assistance is afforded by external means employed in conjunction with the latter. The indications are to reduce the congestion, and to relieve the itching. To accomplish the former the ordinary well-known astringents may be employed. In addition, we have derived benefit from the application of a solution of bromide of potassium in rose-water and glycerine, varying in strength from ten to twenty grains to the ounce. Fluid extract of ergot, rubbed up with cold cream, and a similar preparation of arnica root are also of service. The pruritus, moreover, must be attended to. This ceases with the congestion, but as this latter will not always subside with wished-for rapidity, antipruritics are often advisable. These may be employed separately or combined with the other applications. Besides the well-known antipruritics, hydrocyanic acid, chloroform, etc., the mixture in equal parts of chloral hydrate and camphor, introduced by McCall Anderson, is worthy of special mention. This mixture, in the proportion of ten to twenty grains to the ounce of ointment, will sometimes greatly palliate the itching.

In the majority of cases, however, instead of the simple chronic congestion, we find a development of certain special lesions, which consist in either vesicles, pustules, papules, fissures, or an exfoliation of the horny layer of the epidermis, or there may be a mixture of two or more of them. This condition is usually termed the first stage, and as regards the vesicles and pustules, lasts for a day or two only. It rarely comes under notice, and requires little in the way of treatment other than the application of cooling lotions, or better, either the black or yellow wash (mercury and lime-water). To the first stage succeeds the second, characterized by exudation and crusts, specially marked in the vesicular, pustular, and exfoliative varieties, less so in the others. The accumulation of secretion and crusts in this stage necessitates ablution, but unfortunately the contact with water proves very irritating in many cases, often causing a decided aggravation of the patient's sufferings and a prolongation of the trouble. If, however, we bear in mind the condition present, namely, the skin deprived of its horny epidermis, but with the delicate and succulent cells of rete Malpighii exposed, we can readily understand why the water proves irritating. It is due to endos-

\* Read before the Academy of Medicine, Oct. 4, 1878.

mosis, causing tumefaction, and perhaps rupture of the cells. The remedy is equally apparent. It is only necessary to use, instead of water, a fluid whose specific gravity is about the same as the serum of the blood. A mixture that we frequently employ is rose-water, to which has been added a little glycerine and chloride of sodium. This will be found much less irritating than pure water.

The crusts being removed, the cleansed parts are in a condition to benefit by some medicinal application, usually in the form of ointment. Of these, the oxide of zinc, when nicely made, is perhaps the best when a protective application alone is needed. It is probably not to any great extent curative, its chief office being to shield the parts from friction and atmospheric influences. The tincture of benzoin which it contains, however, probably exerts a soothing influence. The most effectively curative ointments in this stage and condition of eczema, are those containing some preparation of mercury: the ammoniated mercury, the nitrate, and the black oxide. The two first may be employed in ointments of official strength, or somewhat diluted, the third in the proportion of ten grains to the ounce. Lead comes next to mercury in usefulness, and is usually employed in the form of *ungt. diachyli*. This, to be of service, must be carefully made, and quite fresh, as it easily becomes rancid and irritating. The "glycerole of the subacetate of lead" (Squire's formula) is not open to this objection. These ointments must be used with caution if the affected surface is extensive, as we have known both mercurial and plumbic symptoms to arise in consequence of their too free employment.

The pruritus, which is usually present and sometimes severe, invites attention. Unfortunately, it is very difficult to relieve. The chloral mixture above referred to should not be applied to a surface deprived of its epithelium, in consequence of the pain it produces, and chloroform should not be used in connection with the lead or mercurial ointments, as it greatly promotes the absorption of these metals. It may, however, be used with the zinc. The ointment containing it must, of course, be kept closely stopped to prevent its evaporation. Decided relief to the itching is sometimes obtained by adding to any of the ointments mentioned a little tincture of *Hamamelis Virginica*. The best preparation is made from the fresh plant. The various "extracts," "double extracts," "red extracts," fluid extracts, etc., in the market represent but a portion only of the virtues of this plant. Country physicians would do well to make their own tincture of hamamelis, using the bark of the smaller limbs or twigs, and macerating it for a few weeks in sufficient 80 per cent. alcohol to cover it. By this means they can obtain a good tincture very much cheaper than a reliable article can be had in the market. *Hamamelis* is a drug too highly estimated by the public, but too much neglected by the profession. *Stramonium* and *conium* are also useful antipruritics. The white precipitate or black oxide may be added to the *ungt. stramonii*, or tinct. *stramonium* may be added to the *ungt. hydrarg.* nit. In spite of these the itching will often prove obstinate, and disappear only on the cure of the eruption itself.

When an acute eczema has passed through the period of exudation and crusting, and enters the third stage, characterized by redness, dryness, and scaling, the changed condition will demand a change of treatment. Here the mercury, zinc, lead, etc., are of comparatively little service, and should be replaced by some prepa-

ration of tar. Of these the most important are the *ol. picis*, *ol. rusci*, and *ol. cadini*. The last, when genuine (which is seldom the case), is the best. The tar is mixed with simple ointment in the proportion of one or two drachms to the ounce. A useful preparation belonging to the same category is the "*olio di maiz guasto*," much used in Italy. It is prepared from corn.

Thus far we have spoken of acute eczema only, and more particularly of the vesicular, pustular, and exfoliative forms.

In the fissured form, especially on the palms of the hands and behind the ears, we have found plumbago (the best for this purpose is known as "photographic graphite") in ointment (1-10), or mixed with lycopodium or some other inert powder, exceedingly valuable.

When an eczema becomes chronic, it does so either from sheer indolence or in consequence of excessive infiltration. If the indolence is marked by decided venous stasis, dark bluish red color, etc., the *hamamelis* before mentioned will be found specifically useful; if, however, this feature is not present, or the color of the patch is rather paler than is usual in eczema, the *ham. V.* will not be of much, if any use. Under these circumstances we need stimulating, *i. e.*, irritating applications. The basis of these may be hydrarg. biniod., hyd. bichlor., potass. iod., iodine, cantharides, croton oil, and many others that will immediately suggest themselves. The first three may be prescribed in ointment, the last three should be applied by the physician—the iodine in tincture and the cantharides in collodion. The croton oil is very conveniently used in the form of solid cylindrical sticks, made by melting together equal parts of croton oil and white wax, and pouring the mixture into paper molds. A single application of either of these irritants is often sufficient to change an indolent patch of eczema into an active one, which then only requires the treatment appropriate to the second stage of ordinary acute eczema to bring about a cure within a reasonable period.

Quite recently we have obtained excellent results by a process that we believe is original—namely, the hypodermic injection of the arseniate of sodium into the eczematous patch. We use solutions of one-fifth per cent., one-half per cent., and one per cent. If there be a single patch of moderate size, a single injection of five to ten minims of the one per cent. or one-half per cent. solution is made. If the patch is larger, or if there are several of them, the weaker solutions are employed, and two or more punctures made in the larger patches or distributed among the smaller ones. The injections are to be repeated at intervals of two or three days, *p. r. n.*\* As yet we have seen neither abscess nor undue reaction. If the physician will take the precaution to obtain pure arseniate of sodium and distilled water, and make the solution himself, he will be more likely to obtain good results than if he leaves the fabrication of the solution to some apothecary's clerk.

A chronic eczema characterized by excessive infiltration rarely exhibits any tendency to heal until the infiltration has in a measure been dissipated. The lead, zinc, and mercurial ointments will rarely prove of much service in these conditions. The special irri-

\* In the first volume of the *Archiv. f. Dermatologie*, 1869, Lipp reports the use of hypodermic injections of Fowler's solution and solutions of arsenious acid in psoriasis and chronic eczema. The Fowler's solution is objectionable, as it includes a number of unnecessary ingredients, and the arsenious acid is very insoluble. Lipp only obtained solutions of requisite strength by adding carbonate of potassa or hydrochloric acid.



tant applications just mentioned will do more harm than good, and will probably increase the infiltration. Its removal, however, may frequently be accomplished by the strong alkaline lotions. If *liq. potassæ* or a stronger solution of potash be applied to the infiltrated patch, we will observe, in a few minutes, a more or less copious exudation of clear serum, with, perhaps, a slight temporary increase of swelling. The exudation may continue for some hours, and then gradually diminish. Coincident with the decline of the irritation, the infiltration in part subsides. The application may be renewed at the end of three or four days or a week. The *modus operandi* of the alkaline application is not quite clear. The effects are possibly due to exosmosis, as we have seen the same result follow the application of strong glycerine. Instead of the potash solutions, *sapo viridis*, or ordinary soft-soap, may be used. This should be well rubbed on with a bit of moistened flannel, till the exuding serum has a slight tinge of red; the application to be repeated once or twice a week, if necessary—emollients to be used in the intervals.

We may also attempt the reduction of the infiltration by stimulating the absorptive function of the sanguineous and lymphatic capillaries. The pathological condition present consists in a superabundance of small white cells. Whether these are outwandered leucocytes, or proliferated connective-tissue corpuscles, is a question not yet settled. The present problem is to get them away from the part of the skin in which they have accumulated. Which set of capillaries performs the principal, or perhaps the entire work in this matter, we frankly confess we do not know. Certain it is, however, that "stimulation of the absorbents" may be effected in several ways. The most effective of these is kathodic galvanism. When this is impracticable, we are accustomed to rely upon some of the more active so-called "acro-narcotics" of the indigenous *materia medica*. Among these *hydrastis* and its derivatives hold a first rank. Next in usefulness, in our own experience, has been the *iris versicolor*. This is met with in trade as a tincture made from the fresh plant, as a fluid extract, and as a "concentrated tincture" (Keith's) made from the dried plant. Here, again, the country practitioner has an advantage over his urban brother, inasmuch that he can at small expense make for himself a good tincture from either the fresh or the freshly-dried root, as he desires. We prefer to rely upon the fresh tincture, as the virtues of the dried root become impaired by long keeping. (*Vide* U. S. Disp.) If using the *iris versicolor*, from 3 ss. to 3 i. are mixed with simple ointment and rubbed up until the alcohol is evaporated. Another tincture that may be usefully employed in the same manner is that of the *viola tricolor*. This is not strictly an indigenous plant (being naturalized from Europe). The imported tincture is the one we rely on. That made from the garden plant (cultivated for its flowers) is comparatively worthless. We are not aware that the *v. tricol.* grows wild in any part of this country. The *v. pedata* (*vide* Disp.), however, is found from "New England to Illinois and southward" (Gray). As the active principle of the various violets is believed to be the same, it is possible that the native species, especially the *v. pedata* (*vide* Disp.), may prove as useful as the foreign.\*

After the infiltration has been in part or wholly removed by some of the means indicated, the patch of eruption will be in a condition to benefit by the mer-

curial ointments, etc., followed, if necessary, by tarry applications.

The whole of the foregoing relates to eczemas of the general surface. In certain special locations, however, a few modifications of treatment are desirable. When the affection is located upon the scalp in children, and is extensive, the crusting may be very great, and the parts become the home of numerous pediculi. Under these circumstances, delphine or kerosene will destroy the insects. Poulticing will soften and aid in removing the crusts, and cutting the hair will greatly facilitate recovery.

When eczema attacks the hairy portions of the face, the morbid action is sometimes propagated to the lining membranes of the hair-follicles (outer and inner root-sheaths), constituting one of the affections which commonly pass under the names of *mentagra* and *syccosis*. In these cases it is necessary to remove by epilation all the hairs that proceed from the diseased follicles, in order that the remedial application may penetrate them. In fleshy women eczema sometimes succeeds intertrigo of the submammary and genital regions. In these cases dusting powders play an important rôle.

Eczema of the lower extremities, especially of the legs, is not infrequently complicated with varicosis and very considerable infiltration. In the former of these conditions, *hamamelis*, and in both of them elastic compression, will prove of great service.

Lastly, indolent and thickened eczemas of the palms and soles are often exceedingly obstinate. The thickened epidermis may be rubbed down with sand-paper or pumice-stone, and the parts enclosed (at night) with some impermeable fabric (rubber gloves, etc.). The cutaneous exhalations thus retained macerate the parts and excite a healthier action.

The successful management of eczematous lesions necessarily demands an exact appreciation of the conditions present, a knowledge of the means by which they may be remedied, and the proper application of these means.

## Original Communications.

### A CASE OF LATERAL SPINAL PARALYSIS (SPASMODIC SPINAL PARALYSIS OF ERB).

By ALLAN McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS, BLACKWELL'S ISLAND, NEW YORK CITY, ETC.

THE reported cases of *primary* disease of the lateral columns of the spinal cord are exceedingly few in number, eighteen being published by Erb,\* two of which were evidently of congenital origin, and due to imperfect development of the spinal cord. Five were seen by Charcot,† who remarks, in a clinical lecture, "It is a disease which is not very common. I am not able to collect, from a vast hospital service, more than five cases to report, while it is easy to bring together forty ataxics." Other scattered cases have been reported by various Continental authors, but so far the only American cases have been several described by Dr. E. C. Seguin,‡ in an article entitled "Tetanoid Paraplegia," published several years ago,

\* Virchow's Archiv, Bd. 70, H. 3, 5 Juli, 9 Jun, 1877.

† Leçons sur les maladies du syst. nerveux, 4e fasc., 1877, p. 286.

‡ Archives of Scientific and Pract. Med., Feb., 1873.

\* Of the internal use of the *iris vers.* and *viola tricol.*, in eczema, we have spoken elsewhere (Cutaneous and Venereal Memoranda, N. Y., 1877).

which were probably of this kind, and two others recently by Dr. L. C. Gray.\*

Out of nearly one hundred cases of chronic nervous disease examined by my assistant, Dr. Chaddek, and Dr. Dulancy, at the Hospital for Epileptics and Paralytics, but one could be found of primary disease of the lateral columns, and this case is one of extreme interest, from the fact that the central disease has extended slightly into the posterior columns during the past year or two. It is also of interest because the so-called skin reflex is well marked.

John Van Pelt, æt. 28, U. S.; silversmith.

*Family history.*—Parents alive and healthy. One brother died of "bone trouble," another from some affection of the bowels, and a third from an unknown cause. One sister died who had been subject to epilepsy, and he has another sister who is in poor health. He does not know of any hereditary disease.

*Previous history.*—Enjoyed good health up to his twelfth year; at this time he fell and injured his back and head, and was afterward confined to his bed for a month in consequence, but subsequently made a complete recovery, and was well until the onset of the *present trouble*. This began eight years ago (1870). He had been in the habit of going to balls and staying up late, but was not intemperate, either in sexual indulgence or drink. He first noticed a feeling of weariness after any slight exertion, when his legs would feel heavy, and his feet sometimes burn. If he persisted in walking his legs would become stiff, and he often stumbled and staggered, and on several occasions fell. He would occasionally suffer from pains during cold weather, and spinal epilepsy. His general health remained unchanged, and he had perfect control over his bowels and bladder. At this time there were occasional formications in his lower extremities, but never anesthesia. No loss of power or co-ordination in hands, nor any affection whatever of upper extremities. There never has been any pain in the back, affection of the special senses, nor any cerebral trouble whatever; neither were there sharp pains in the lower extremities. For two years he could walk alone, the next two he was obliged to use a cane or crutches. In June, 1875, he was admitted to the hospital, and was then able to move about by clutching chairs or other articles of furniture. He was put to bed, and remained there for a month. About five years ago his feet began to grow stiff, and extended so that he was obliged to walk on their tarsal surfaces, not being able to touch his heels to the ground; about the same time he noticed difficulty in writing and in using his knife and fork, on account of *clumsiness* of the hands. There never has been any constricting band about the waist.

*Present condition.*—Oct. 14, 1878. Is in good general health; appetite good; complexion clear, and lips bright red. He usually sits in an arm chair, very much bowed over, the head quite in advance of the body, but he is able to move it freely. The abdominal fold, so well described by Charcot,† is conspicuous. The belly is prominent, and at the lower border of the ribs is a fissure which extends across the body. The patient cannot straighten himself, though there is no vertebral disease, the spinal column being in no way affected. The thighs and legs are rigidly extended and adducted, and the feet are also stiffly extended. The arms are not involved. When told to raise his heels from the floor when sitting he is unable to do so for more than six inches, and the rigidity

which follows prevents them from falling to the ground immediately, as the muscles upon the anterior aspect of the limbs seem to contract. The feet are somewhat inverted, and by using some force passive motion is possible; but he cannot move them himself, neither can he abduct them nor cross his legs. The muscular rigidity seems to be greatest in the supine posture, and he complains that it is especially troublesome in the night. The joints are well developed, but there is no arthropathy. He cannot now stand nor raise himself from his chair, but when assisted and held on his crutches the characteristic appearance of the lower extremities is well shown. He then stands upon the metatarso-phalangeal part of the foot, and in attempting to walk he painfully drags his feet, and with difficulty forces one ahead of the other, when, by action of the adductors, they become interlocked, and he is obliged to have them disengaged.

In this case reflex excitability is good—that of the tendons quite marked. The act of standing produces quite decided epileptoid movements, and the foot movements (fussphenomenon of Westphal) follow forcible flexion of the feet. Slapping of the muscles of the leg induces fibrillary contractions and movements of the toes. *The tendon reflex varies.* At times a slight tap upon the tendons of the quadriceps or patella will be followed by a vigorous kick. A tap upon the tendinis Achillis will cause the heels to be raised, and the tendon of the triceps when struck will be followed by quite appreciable contractions. A very peculiar feature of the disease is the fact that if the finger be passed ever so lightly over the abdominal parieties, there will follow a general but uneven contraction of the abdominal muscles. Electric irritability of the muscles is fair. There is no conspicuous atrophy—no more than would occur from disuse, and this loss of substance is general. The power in the hands seems to be normal, for with the dynamometer he can force the index to 100° with the right, and 90° with the left. There is slight clumsiness, not amounting to ataxia. The bowels are now slightly constipated, probably owing to his sedentary life; but his micturition is attended by considerable increase in the force of ejaculation.

His cutaneous sensibility is slightly impaired, and there is anesthesia and analgesia, but no plantar anesthesia, however. The skin of his legs is sometimes mottled and cold.

Dr. Dulancy examined his eyes very carefully, and found no evidences whatever of any disease at the fundus. The pupils dilated evenly; vision by test types, twenty-twentieths. No ocular muscular trouble whatever, and there never has been diplopia nor strabismus. His tongue is protruded in a straight line, and without tremor. His mental condition is good.

This case, then, presents the prominent symptoms of the disease: paresis, rigidity, and certain irregular spasmodic movements, chiefly of the lower extremities, without ataxic symptoms, atrophy, or cerebral manifestations; and a great increase of the "tendon reflex." It is true that some evidences of impaired sensibility are present, but both Charcot and Erb have shown that these are sometimes found in the third stage, when some involvement of the posterior columns has taken place. Two forms of the disease have been recognized in regard to symptomatology: 1. The form in which the patient progresses with the body thrown back. 2. That in which the patient walks with his body inclined forward. This last form, which Charcot believes to be more rare than the first, is that under which the case of my patient comes. As to the cause of this man's disease, it is possible

\* Proceedings of Kings Co. Med. Soc., July, 1878.

† Leçons sur les maladies du syst. nerveux, 4e fasc., p. 257.



that his trade had something to do with its development, as he was obliged to work not only in silver, but in lead as well. In one of Betou's\* cases this cause is said to have produced the malady.

## BULLET IMPACTED IN MASTOID CELLS,

EXTRACTED BY TREPHINING MASTOID PROCESS, AFTER DETACHING POSTERIOR INSERTION OF PAVILION AND CARTILAGINOUS MEATUS.

By PROF. GEORGE E. POST, M.D.,

BEIRÛT, SYRIA.

—, DAMASCUS, aged 22 years. His little brother discharged a revolver into his right ear while he was sleeping. The ball entered the meatus and disappeared. He describes his sensation as that of one awakened by a clap of thunder. He says that there was copious hemorrhage from the ear, and that he had violent fever, with loss of consciousness and severe headache and impairment of hearing, with distressing tinnitus. After weeks of grave symptoms, which caused his life to be despaired of, he so far recovered as to be able to leave the house, but he was quite unable to resume his avocation as a tailor.

The military surgeons of Damascus twice put him under chloroform, and endeavored to withdraw the ball from the meatus by forceps and the screw tire-balle, but were only able to remove bits of lead which were impacted in the worm of the screw of the latter instrument.

When the patient presented himself to me he was suffering from hemicrania, dizziness, tinnitus, otorrhœa, and an inability to concentrate his attention on any subject. The ball could be felt at the bottom of the meatus, and the screw of the tire-balle drew bits of lead, but the bullet could not be moved in the ear by its aid. As there was reason to believe that the ball was spread among the mastoid cells, I resolved on the following plan of operation, which I carried out with the aid of Prof. John Wortabet, of the Syrian Medical College, Dr. R. W. Brigstocke, of Beirût, and Dr. Kidder, Surgeon of United States S.S. Vandulia.

The patient being chloroformed, an incision was made from the superior attachment of the pavilion to the inferior, along its mastoid border, and the pavilion was separated from its deep attachments, and the dissection carried behind the meatus externus until it was quite free from the mastoid process. It was then divided from behind forward, along the line of junction with the bony meatus, and the pavilion, with the cartilaginous portion of the meatus, were turned forward on the cheek, and held there by an assistant.

The posterior bony wall of the meatus was found shattered by the bullet, which was then plainly seen, filling the cavity of the tympanum, and extending by many ragged projections back into the mastoid cells. After repeated vain attempts to dislodge it with forceps and the tire-balle, the mastoid process was cleared of periosteum over a space sufficient to permit the working a five-eighths-inch trephine, and a disk of bone was removed extending from the surface to the site of the impacted bullet. It was necessary, however, to remove several spiculæ of bone in order to dislodge the ball. This was done with a gouge and with a hammer and chisel. The bullet was finally removed entire, with the exception of the bits

which had been nipped away by the forceps, or torn away by the tire-balle in the previous efforts.

The patient rallied well from the severe and long-continued operation. The pavilion of the ear reunited by the first intention, save where a tent of horsehair was kept in the wound to favor drainage. Three weeks after the operation he returned to Damascus relieved of all the grave symptoms. He was recommended to dress the wound with the horsehair tent, and syringe it frequently with carbolic acid until it should cease to discharge.

## EMPHYSEMA FROM AN INJURY TO THE THORAX, WITHOUT A FRACTURED RIB.

By G. P. H. POMEROY, M.D.,

STUYVESANT-ON-THE-HUDSON, N. Y.

W. M., male, American, farmer, aged 64, was kicked in the right side by a horse, Thursday, August 29th, at about four o'clock P.M. I saw him a few minutes past five. On examination found he had received his injury in the region of the seventh and eighth right ribs, but with the most careful examination could detect no fracture (on the fourth rib, near its costal end, I found an exostosis, but it was not painful, and I could get no history of it). During inspiration there was forced out between the seventh and eighth ribs a small tumor for which I could not account. There was not the slightest abrasion of the skin, but considerable discoloration. Great dyspnoea and pain on breathing were present.

Friday, Aug. 30th, 7.30 A.M., visited patient in company with Dr. Burrall, of New York. Patient had not rested at all through the night. On examination this morning we found the cellular tissue of the right side in an emphysematous condition. There was a slight tendency to cough; pulse was but slightly accelerated; temperature 97° Fahr.; respiration 44. After another thorough examination, we came to the conclusion that there were no fractured ribs, but that some air-vesicles of the right lung had been ruptured by the blow.

Friday, 6.30 P.M.—Emphysema gradually extending over both sides; respiration a little easier and less frequent; pulse and temperature about the same as in the morning. Saturday, Aug. 31st, 7 A.M.—Slight amelioration of symptoms; rested well through the night. 4 P.M.—No material change from morning.

Sunday, Sept. 1st, 1.15 A.M.—Was sent for in great haste. Found the patient suffering from great dyspnoea and a sensation of choking. Pulse 120 and very feeble; respiration very rapid and shallow, with gurgling and a great tendency to cough. The emphysema had extended to back, neck, and face. He was in terrible agony, being unable to lie down for a minute. I gave him diffusible stimulants and used hot applications externally. Between four and five o'clock A.M., he had three thorough evacuations from the bowels (I had previously given him Sal Rochelle), after which he seemed to feel somewhat easier. 9 A.M.—Saw him again with Dr. Burrall. He recommended the continuance of the stimulants, with quinia, and spirits turpentine externally. 7 P.M.—Considerable delirium during the day; symptoms slightly moderated; not quite such a tendency to cough.

Monday, Sept. 2d, 6.30 A.M.—Rested well through the night; was able to lie down part of the time. Effusion somewhat lessened; emphysema greater. Pulse 100; temperature 98½° Fahr.; respiration 32.

\* Étude sur le tabes dorsal spasmodique. Quoted by Erb.

5.30 P.M.—Symptoms slightly aggravated, with a great tendency to cough.

Tuesday, Sept. 3d, 6.30 A.M.—Passed a very restless night, with a continuous effort to cough and expectorate; pulse 95; temperature 99°; respiration 30. 5.30 P.M.—Slight moderation in circulation and temperature, but quickened respiration, with increased dyspnea.

Wednesday, Sept. 4th, 7.30 A.M.—Spent a very restless night, notwithstanding the administration of one grain of opium every three hours. Effusion somewhat increased, so much so that he was unable to rest in a recumbent position at all. 6.30 P.M.—Slight aggravation of symptoms from morning, with painful efforts to cough.

Thursday, Sept. 5th, 7.30 A.M.—Rested well through the night, but in an upright position, as he was unable to lie down. There was a slight improvement in the symptoms generally from the previous evening. 7 P.M.—No material change from morning.

Friday, Sept. 6th, 7.30 A.M.—Rested well through the night, and continues to improve.

Wednesday, Sept. 11th.—Saw patient this morning with Dr. Burrall. Patient had rested well through the night, being able for the first time since Sunday, Sept. 1st, to take the recumbent position. Emphysema nearly subsided, and a thorough examination was made, having patient move his arms backward and forward, and put his hand on the top of his head, which he could do with the hand on the injured side, as well as the other. We also pressed on the extremities of the ribs, and it caused him no pain, all of which tests seem to indicate clearly that there has been no fracture. Have seen the patient a number of times during the subsequent weeks, and he has almost fully recovered, complaining only of weakness and some pain at the site of injury on too much exercise.

My opinion is that the injury was received during inspiration, while the lungs were filled with air. That the emphysema was due to a rupture of air-cells caused by a tearing off of the pulmonary pleura and the concussion necessary to the blow.

The tumor referred to I believe was pleural, and that it was caused by the calk on the horse's shoe, which struck at that point between the seventh and eighth ribs.

## Reports of Hospitals.

### ROOSEVELT HOSPITAL, NEW YORK.

SERVICE OF WM. H. THOMSON, M.D.

CARDIAC DILATATION AND HYPERTROPHY—AORTIC AND MITRAL STENOSIS—CHRONIC PACHYMENINGITIS—ALBUMINURIA AND SYMPTOMS OF UREMIC POISONING RESULTING FROM DISEASE OF THE HEART.

SARAH F., æt. 50, widow; admitted May 2, 1878. This was an old cardiac case, which had been in the hospital previously. A few days after leaving the house the patient became very œdematous in feet, legs, and face, and soon fell into a semi-comatose condition. Later this changed into entire coma, and then alternated with delirium. She continued in this state for nearly three weeks, and in the meanwhile passed a large amount of urine. At the end of that time there was a marked improvement; she gained strength rapidly, and was soon able to walk about. Just before her second admission her feet and face again became œdematous, and she suffered from severe headache, impaired vision, and frequent attacks of nausea.

When she was brought to the hospital her friends stated that her mental faculties seemed to have been somewhat impaired for some time.

A physical examination showed that the heart was irregular in its action; its sounds very feeble, and an initial systolic murmur was heard. Fluid was detected in the right pleura, as high as the angle of the scapula, and above that level there was a friction-sound. The urine was acid in reaction, of a specific gravity of 1029, and contained twenty per cent. of albumen. The treatment she was put upon consisted of stimulus, and a mixture containing digitalis and acetate of potassium, with half a drachm of fluid extract of pilocarpus at night. Under this the œdema of the feet became slightly diminished, but the quantity of urine passed was small. On May 5th she suffered a great deal from dyspnea, and vomited frequently. The bowels were constipated, there was suppression of urine, and the patient was very stupid. She was ordered a teaspoonful of fluid extract of pilocarpus, and a pill containing two drops of croton oil, but neither of them acted. In the evening she became semi-comatose, and was ordered to be placed in the hot-air bath for five hours, and to have enemata of whiskey, milk, and fluid extract of pilocarpus. All of these, however, were rejected. The next day the patient was comatose, and the dyspnea was very marked. The surface of her body was thoroughly oiled, and then she was wrapped in blankets saturated with hot water. She was then ordered a hypodermic injection of one-tenth of a grain of pilocarpin, and to take by the mouth fifteen grains of calomel with ten grains of jalap; the dose to be repeated if necessary. Although she was vomiting constantly, she retained the powder on her stomach, but no cathartic effect was produced. Moderate diaphoresis, however, occurred, and hypodermic injections of pilocarpin were repeated, at intervals of three-quarters of an hour, until half a grain had been given. By this time very profuse diaphoresis was produced. In addition, claterin was administered hypodermically as follows: one-twentieth grain at two P.M., one-twentieth grain at three P.M., one-tenth grain at four P.M., and one-fifth grain at six P.M.; and in consequence the bowels began to move freely at nine P.M., and continued to do so through the night. She also passed a fair amount of urine. On the following day the patient was found to be much improved and entirely rational, while the œdema was considerably reduced.

On May 10th she complained of slight headache and occasional vomitings, and was put upon soda-powders and Vichy, and, by way of diet, milk and lime-water in equal parts. This regimen was followed by very satisfactory results. On the 12th, however, she had a return of dyspnea, seemed very stupid, and vomited frequently. She was ordered two powders of calomel and jalap, similar to those given before, at an interval of three hours; but they failed to produce any effect upon the bowels. Thirty grains of *puleis purgans* was then directed to be given every three hours until the bowels moved, and a slight evacuation was produced after the third powder had been taken. Two hours later two pills, each containing two drops of croton oil, caused a very free movement. Her condition afterwards improved again, the treatment consisting, for the most part, of jaborandi, Vichy, and whiskey; but on the 17th of May it was noticed that a bed-sore was forming on the sacrum, and the patient was ordered to be removed to a water-bed. The bed-sore was dressed at first with oxide of zinc, and afterwards tannate of lead ointment, but nevertheless it continued to spread rapidly, and on the 28th fre-



quent washing with a solution of bromine (an ounce to the pint of water) was commenced. The bowels and kidneys continued to act freely, but the patient suffered a great deal from dyspnoea, and it was evident that her strength was fast failing. She became comatose at three o'clock on the morning of the 29th, and died in profound coma at seven that evening.

**Autopsy: Brain.**—Thin hemorrhagic layer on inner surface of dura mater. Increase of clear serum under the pia mater, which looks very finely granular. Convolutions rather loose and somewhat atrophied.

**Heart.**—Both ventricles dilated, and wall of left ventricle thinned. Mitral stenosis and insufficiency. Fringe of vegetation on aortic valves. Pericardium coated with a thin layer of fibrin, and turbid serum in its cavity.

**Lungs.**—Well-marked pigment induration. Considerable serum in both pleurae.

**Liver.**—Small and firm; "nutmeg" in character.

**Stomach and Small Intestines.**—General congestion of mucous coat.

**Kidneys.**—Of medium size and normal consistence. Capsule not altered. Surface smooth. Very little gross appearance of disease presented.

The large amount of albumen in the urine, and the uræmic symptoms in this case, seem to have been due alone to the cardiac trouble.

#### DOUBLE MITRAL AND AORTIC REGURGITANT MURMURS —MARKED RELIEF FROM SYMPTOMS.

The great improvement which is so frequently seen in cardiac cases, as a result of the change of manner of life and the care and attention incidental to a residence in a well-regulated hospital, is well shown in the following case:

Catherine C., æt 14; was admitted May 29, 1878. Previous history: Mother died of phthisis. Had acute rheumatism one year before, involving ankles, knees, and shoulders. After that attack the patient felt perfectly well up to three weeks before admission, when she began to suffer from an aching pain in the præcordial region, and was greatly troubled with palpitation of the heart. She also became subject to dyspnoea on exertion, and later she had a slight cough, with frothy expectoration. Her appetite failed, and she became subject to night-sweats.

On a physical examination it was found that the cardiac impulse was in a vertical line from the centre of the axillary space. The area of cardiac dulness was remarkably low down, only commencing at the fourth rib, and the apex-beat was in the sixth intercostal space. There was no increase in cardiac dulness on the right side. Double mitral and slight aortic regurgitant murmurs were detected.

The treatment was very simple, consisting only of good hygienic management and the administration of one drachm of infusion of digitalis three times a day, and already on the 1st of June it was noted that the palpitation and dyspnoea had greatly diminished. By the 4th of June the cough and expectoration were also much less troublesome, and on the 10th the patient stated that the palpitation was now caused only by considerable exertion, and that she had no dyspnoea whatever.

#### ACUTE RHEUMATISM.

The following is quite a favorite prescription:

R. Sol. acid. salicylic. . . . . f. ʒ ij.  
Tinct. gaultheriæ. . . . . f. ʒ i.  
Aque. . . . . f. ʒ iv.

M.

*Dose.*—A tablespoonful.

The solution of salicylic acid is of the strength of forty grains to the ounce.

#### BRONCHO PNEUMONIA.

Some days before admission, the patient, a seaman, aged twenty-five, after exposure to wet was taken with a chill, followed by fever, which was attended with cough and expectoration. The sputa were not at first blood-stained, but soon became so.

He also suffered from dyspnoea and from pain in the lower part of the right side of the chest. The diagnosis of acute bronchitis with pneumonia of the right lung was made, and the patient put upon milk diet, with an allowance of three ounces of whiskey *per diem*. He was also ordered to make use of the following prescription:

R. Ammon. carbonat. . . . . gr. lxxx.  
Mucilaginis,  
Aque. . . . . āā f. ʒ j.  
Spts. vin. Gallici. . . . . f. ʒ ij.

M.

S.—Tablespoonful three times a day.

This was alternated with an expectorant mixture containing compound syrup of squill, wine of ipecacuanha, and sulphate of morphia, which was to be taken three times a day in the same manner.

The attack reached its height the second day after admission, when the temperature rose as high as 103°, and from that time the patient gradually improved. About twelve days later, there still being considerable dulness over the lower part of the right lung, the patient was ordered twenty grains of muriate of ammonia three times a day, and just one month from his admission he was discharged cured.

#### PLEURO-PNEUMONIA.

Henry H., a native of Germany, æt. 29; admitted April 29, 1878. For many years he had been subject to slight cough, attended by expectoration, occasional stitchy pain in the right chest, and dyspnoea if he lay upon the right side. Shortly before admission he was taken with a chill, followed by fever, cough, expectoration, pain in right side, and extreme dyspnoea. The sputa became rusty two days later. At the time he entered the hospital the pulse was 104, the respiration 50, and the temperature 103.1°; and a physical examination showed dulness, bronchial voice and breathing, increased vocal resonance, with crepitant and subcrepitant râles from the spine of the scapula down, on the right side. There were also a few subcrepitant râles on the left side. The treatment ordered consisted of a milk diet, whiskey, and the first prescription given to the last patient.

On the 2d of May the sputa were green and scanty, with small masses of pure blood scattered through them. The dyspnoea was very marked and the respiration panting in character. At this time crepitant râles were detected over the base of the left lung, behind (where there was also dulness on percussion), and it was naturally supposed that the patient was suffering from double pneumonia. The amount of whiskey was increased to twelve ounces *per diem*, and, in addition, the patient was ordered two drachms of infusion of digitalis every three hours. The dyspnoea, however, continued to increase, and late in the evening he became delirious. At two o'clock the next morning the respiration became extremely rapid, and at 2.30 the patient died.

At the autopsy the right lung was found to be completely covered by a thick layer of recent membrane of fibrine and pus. The lower two-thirds of the

upper lobe and the whole lower lobe were in a state of commencing gray hepatization. The bronchial mucous membrane was deeply congested and indurated. The pleura of the left lung was covered in places with portions of recent membranes, while the lung itself was quite normal. It will therefore be seen that the plastic exudation about the left pleura in this case gave rise to physical signs closely resembling those of pneumonic consolidation.

#### CROUPOUS PHARYNGITIS.

The patient, an unmarried female, aged twenty-four years, a few days before admission to the hospital began to suffer from general malaise, and at this time also had a short attack of vertigo. Later she began to vomit, and this symptom frequently recurred afterwards. On retiring she noticed that swallowing caused her distress, and her throat now became very painful. Two days later the glands about the angle of the jaw became enlarged, and in the meanwhile all the symptoms had increased in severity. On the following day she came into the hospital, and on examination it was found that there was great diffused redness about the fauces, and that the tonsils were very much swollen. The treatment she was put upon consisted of a milk diet, four ounces of whiskey *per diem*, and a teaspoonful of solution of bromine (of the strength of one drachm to two ounces of water) three times a day. As a gargle the following was ordered:

|                       |          |
|-----------------------|----------|
| R. Sol. brominii..... | f. 3 ij. |
| Glycerine .....       | f. 2 ij. |
| Aque ad.....          | f. 2 iv. |

The next day, May 30th, the posterior portion of the tonsils and pharynx were covered with a yellowish white membrane. There was considerable dyspnea, while the patient experienced extreme difficulty in swallowing, and continued to vomit frequently. The pulse was 124, the respiration 40, and the temperature in the axilla,  $102\frac{1}{2}^{\circ}$ . The same general treatment was continued.

On the following day it was noticed that the expectoration contained a considerable quantity of blood. The membrane still persisted, and the patient's condition was otherwise unchanged. By June 2d, however, the pseudo membrane had completely disappeared (although the mucous membrane still continued very red and angry-looking), and there was now much less dysphagia and dyspnea. The pulse had become reduced to 72, the respiration to 36, and the temperature to  $99\frac{1}{4}^{\circ}$ . On the 5th of June the patient was able to sit up, and complained of only a slight sense of soreness about the throat. No further trouble ensued, and in a few days later she had completely recovered.

#### CATARRHIAL JAUNDICE OF TWO YEARS' STANDING—PROBABLE CIRRHOSIS OF THE LIVER (STAGE OF ENLARGEMENT).

About two years before the date of his admission, the patient, who was thirty-four years of age, and a porter by occupation, began to suffer from malaise, and gradually became jaundiced, the yellow discoloration having continued to a greater or less extent ever since. During the first five months, however, it had not been constant, but had gone away and then reappeared frequently. For eight months previous to admission he had suffered from a constant and distressing itching of the skin in connection with the jaundice. His appetite had generally been poor, and he had vomited a good deal. He had never had any pain or

sense of fullness in the right hypochondrium, or suffered from colic of any kind. For the past two years he had been a very hard drinker.

When he came into the hospital he was fairly nourished, and his appetite seemed to be good; he had no aversion to fatty food. The tongue was moist and slightly coated. His bowels were loose, the patient having two or three abundant evacuations of diarrhoeal character each day. The stools were almost white in color, and their passage was not attended with any pain. The urine, like the entire skin of the body and the conjunctiva, was deeply discolored with bile-pigment. On making a physical exploration, it was found that both the liver and spleen were larger than normal, the increase in size being much more marked in the latter than in the former. The treatment ordered was half a drachm of the fluid extract of pilocarpus and thirty grains of muriate of ammonia each, three times a day, together with a daily bath of water containing bicarbonate of soda (half a pound to twenty gallons of water).

Ten days later the patient stated that his stools had changed to a yellowish green color. The discoloration of the urine continued. Six days afterwards (May 10th) he perspired profusely after taking the jaborandi, and it was noticed that his clothing was slightly discolored as a result of the sweating. The color of the integument over the extremities was now seen to be clearing up quite perceptibly.

On May 12th, small repeated blisters were ordered over the right hypochondrium, and ten grains of bicarbonate of soda three times a day internally. From this time there was apparently a gradual, but very slow improvement in the icterous condition of the patient, but no very marked change was noticeable. His appetite continued good, and he gained steadily in strength.

#### CIRRHOSIS WITH ENLARGEMENT OF THE LIVER.

The patient, aged forty-nine years, stated that he formerly used to drink, but that for seventeen years past he had been temperate. He enjoyed good health up to three months before admission, when he was attacked with a sharp, shooting pain, accompanied with tenderness, in the left hypochondrium, the pain being increased by a full inspiration. He also suffered slightly from dyspnea, and felt very weak, but had no cough or expectoration. The symptoms lasted about a week at this time, but a fortnight later they returned in an aggravated form, the pain extending rapidly over the epigastrium and right hypochondrium. About a week afterwards he also noticed a tumor in the left hypochondrium, tender upon pressure, which in a fortnight extended beyond the median line and into the right hypochondrium. He continued to suffer in the same way up to the date of admission, May 24th. From the first the pain and dyspnea were much worse at night, the exacerbation coming on about eight in the evening, and remitting about four in the morning. The pain always became aggravated also from a half-hour to an hour after eating. From the commencement of his illness he was extremely costive, and for ten months previous to admission had lived principally upon fluid diet. His flesh and strength had failed rapidly, but he had never been jaundiced. For four weeks previous his feet had been oedematous. A physical exploration showed that the liver and spleen were both enlarged, and that the surface of the liver was apparently smooth. The urine was acid in reaction, of a specific gravity of 1026, and contained urates in abundance. The treatment ordered was twenty grains of iodide of potassi-



um three times a day, and the half of the following mixture in the morning:

R. Magnesie sulph..... ʒ ss.  
 Ferri sulph..... gr. viij.  
 Acid. sulphuric. dil..... f. ʒ j.  
 Aquæ ad..... f. ʒ iv.

M.

Later, a pill containing one-sixth grain belladonna, one-fourth grain extract of nux vomica, two grains of extract of colocynth, and one grain of Socotrine aloes, was given three times a day, on account of the obstinate constipation. On the 4th of June, the patient complaining of very severe pain in the right hypochondrium, four leeches were applied, with the effect of greatly relieving it. After that the patient continued to improve. The abdomen became somewhat diminished in size; there was less distress after eating; the dyspnœa disappeared to a great extent; his strength improved, and the only complaint that he made was of a sense of weight and fulness over the hypochondriac and epigastric regions.

#### CEREBRO-SPINAL MENINGITIS.

Walter T—, ten years of age; admitted May 3, 1878. Was well up to April 29th, when he felt indisposed and went to bed. An hour later his parents noticed that he had a high fever, and was unable to move his legs. In the evening he began to vomit, and to complain of pain in the head, back, and all his limbs. There was also tenderness over the surface of the body, and slight opisthotonos was noticed at the same time. The vomiting was projectile in character, and not attended with nausea. Later in the evening he began to complain of increased sensitiveness and of the annoyance of trifling sounds, but did not give evidence of any photophobia until the night before admission. From the first he was delirious every night, and on May 2d he was also delirious through the day, until late in the afternoon, when he had a profuse epistaxis. After this he was much more rational. Two days after he was taken sick an herpetic eruption appeared about the mouth, and sordes upon the teeth. Headache was constant. During the night of the 2d he constantly ground his teeth, and once passed his urine involuntarily. No twitching of the limbs had been observed. The bowels had not been moved since the illness began. There was no history of otorrhœa, or of any injury to the head or spine.

When he was admitted there was marked opisthotonos, but the patient was entirely rational. He was ordered six grains of quinine three times a day, and one twentieth of a grain of calomel every half-hour. There was no change in his condition, except that he had occasional muttering delirium up to May 5th, when he was ordered a teaspoonful of fluid extract of ergot every three hours. Ten leeches were also applied to the spine, and ice to the head and back.

He was now constantly delirious; but the general hyperæsthesia was diminished. The next day, as the tongue was dry and brown, and the pulse very feeble, he was ordered half an ounce of whiskey every two hours. On May 7th passed feces and urine involuntarily, and had three moderately loose evacuations of the bowels. On the day following, however, he regained control of the sphincters, and also became perfectly rational. Opisthotonos still continued, but not so marked, and there was now no tenderness along the spine.

On the 13th of May the patient vomited a great deal, and had three severe convulsions. Ice and also

a blister were applied to the nape of the neck, and six minims of Magendie's solution of morphia were given, after which there was no return of the convulsions, and he slept well through the night. On the 14th the ergot, which had been discontinued, was resumed, and the nape of the neck was ordered to be rubbed twice a day with biniodide of mercury ointment. During the week following the patient suffered at various times from pain in the back and limbs, and on the 21st he was ordered the following:

R. Potass. iodid..... gr. xl.  
 Ext. conii fluid..... gtt. xl.  
 Aquæ ad..... f. ʒ ij.

M.

S. Two teaspoonfuls three times a day.

On the 29th, the severe pain still frequently recurring, twelve leeches were ordered to be applied to the spine.

On the 2d of June the limbs were flexed and quite stiff, and the effort to move them was attended with great pain. The pain in the back was also more constant, and, in consequence, sixteen leeches were applied to the spine. The next day there was no pain, but the patient was very stupid.

On June 6th strabismus was noticed for the first time, and a small bed-sore was found to be forming on the sacrum. On June 10th the strabismus still continued. Emaciation was extreme, and the patient was obviously losing strength from day to day. Anemia very marked. By the 16th the strabismus had disappeared, but the patient's condition still continued about the same. From time to time the boy would cry out, apparently from pain, but he was scarcely rational now.

On the 19th severe diarrhœa set in, and chalk-mixture, laudanum and tincture of catechu were given, with the effect of checking it. On the 22d the strabismus returned, and it was noticed that the bed sores were increasing. The patient now had lost control of the bladder and rectum. June 30th, when last seen, he was still in a very low state, and refused to take anything except milk and whiskey.

## Progress of Medical Science.

REMOVAL OF A NASO-PHARYNGEAL POLYPUS BY THE TEMPORARY DEPRESSION OF BOTH UPPER JAWS.—Prof. Tiffany, of Maryland, relates a successful case of this novel operation. C. S., a mulatto, entered the hospital with a polypus growing from the base of the skull, occluding the right nostril. The growth was removed by a wire passed around the base, but returned again in four months. It filled the posterior naso-pharyngeal space and was attached to the internal plate of the right pterygoid process, its internal and posterior aspect, and to the adjacent basilar process. As the tumor was large, it was decided to depress the two upper maxillary bones, and to perform a provisional tracheotomy. While the patient was being etherized, when the stage of muscular relaxation came on, the tumor sank down, closing the opening of the trachea. Raising the tumor caused it to bleed, and, asphyxia being imminent, the patient was stood upon his head while the trachea was rapidly opened, liberating an ounce or so of blood. A tube was then inserted, and further interference postponed for the time. Six days later the operation was resumed. To prevent the entrance of blood into the air-passages, a bit

of sponge with a piece of silk attached to it was passed into the opening of the larynx. "An incision was carried down on either side of the nose, at the juncture of the nose and cheek, then around the ala and through the middle line of the upper lip into the mouth. The cheeks were then freely dissected from the upper jaws as high as the nasal bones, infra-orbital foramina, and malar bones. The nose was separated from the upper jaws and turned up towards the forehead. A fine saw was then made to cut each jaw from the malar process into the middle meatus of the nose, passing just beneath the infra-orbital foramen, upward and inward. The posterior wall of the upper jaw, when in contact with the pterygoid process, was not divided, lest the superior palatine artery should be injured. The septum of the nose and the vomer were cut with strong scissors. Both upper jaws were strongly depressed and sank down, hinging upon the pterygoid processes." The tumor was well exposed and the pedicle divided by Paquelin's cautery, and the root of the pterygoid process together with the basilar process thoroughly scraped with the hot curved knife of the same instrument. Bleeding points were touched with the same cautery, and chloride of zinc in crystals was thoroughly applied to the bone from which the tumor grew. The jaws were replaced and held in position by a loop of wire passed through the cheeks near the outer angles of the orbits and joined above the forehead by a rubber band. A celluloid plate was then adapted to the teeth of the upper jaws and grooved, so as to hold the wire securely. The cheek flaps were then united to each other and to the nose by sutures. Finally, the sponge was withdrawn from the larynx. The tumor was between three and four inches long, pear-shaped, and six inches in circumference half an inch from the lower end. The incisions were made as in Cheever's operation, which was fatal after one hundred and twenty hours. Dr. T. calls attention to the advisability of tracheotomy in these cases, and the use of a sponge instead of Trendelenberg's apparatus, which is clumsy and has no advantage over the former.—*Transactions of the Medical and Chirurgical Faculty of the State of Maryland*, 1878.

**TREATMENT OF INTERMITTENT FEVER BY CARBOLIC ACID.**—Dr. Stern treats intermittent fever with a potion containing six minims of carbolic acid in six ounces of distilled water; the dose is a tablespoonful three times a day. He has employed this treatment in twenty cases of malarial fever; in fourteen a single bottle of the mixture was sufficient to produce a cure; four were cured by three bottles, and two proved rebellious to treatment. In six of the cases the fever was quotidian in type; in eleven, tertian, and in two quartan. In the last, no paroxysm took place after the administration of the carbolic acid was begun; in the tertian cases there was as a rule one paroxysm, and in the quotidian two, after the commencement of the treatment.—*Lyon Medical*, July 21st.

**TWO CASES OF DIABETES MELLITUS CURED BY THE EXTRACT OF NUX VOMICA.**—These cases are reported by Dr. Eug. Zarzana, in the *Gazzetta Medica di Roma*. The first patient, a woman, had been passing a large quantity of water for three years; she was very weak, her sight was affected, and her thirst was great. At the time the treatment was begun, she was passing twelve Roman livra of urine in the twenty-four hours; it was not albuminous, but contained a large quantity of glucose. At first she was given daily three-quarters of a grain of the alcoholic extract of nux vomica, dissolved in three ounces of distilled water, and the

dose was increased by three-quarters of a grain every three days, until she was taking four and a half grains per diem. Under this treatment the quantity of urine diminished, and it became very acid, flocculent, and colored by biliary pigment. At the same time the glucose diminished until only traces of it could be discovered. The general symptoms improved, and the patient was restored to her previous good health.

The second patient was a large, robust man, seventy-two years of age. During eleven hours he passed two Roman livra and eight ounces of urine, which was rich in urates and albumen. Under the use of the nux vomica, the glucose gradually diminished in quantity and finally disappeared entirely.

**RAPID CURE OF TWO CASES OF ENURESIS NOCTURNA BY MEANS OF ELECTRICITY.**—In the text-books on electro-therapeutics the treatment recommended for enuresis nocturna is the passage of the galvanic or faradic current through an electrode insulated nearly to the point, which is introduced into the urethra as far as the neck of the bladder. As this method of applying electricity is very difficult in children, Dr. v. Hesse tried the external application of both currents, but without success. Lately he has introduced the end of the conducting cord connected with the negative pole one inch into the urethra, placed the positive pole over the sacrum, and passed an induction current between them for two or three minutes; by this method he cured permanently a boy fourteen years of age, in two sittings, and a boy of thirteen, in five sittings.

Dr. Ultzmann, of Vienna, employs for these cases of enuresis a cylindrical metallic staff, one-fifth of an inch in diameter. This is introduced into the rectum, when the patient is a boy, and into the vagina when a girl, and is then connected with one pole of the battery; the other pole is applied over the bladder. He protests against the direct irritation of the neck of the bladder, as it often occasions decomposition of the urine, and thereby gives rise to cystitis.—*Memorabilien*, June.

**TREATMENT OF CHRONIC PHARYNGITIS.**—Discouraged by his lack of success with the usual methods of treatment for chronic pharyngitis, Dr. Foulis has had recourse to cauterization of the pharynx with the red-hot iron, a method that had already been employed in Germany. He heats the iron to a dull red, and applies it successively to each of the thickened points, but not to the entire extent of the pharynx. The pain is slight, and is easily assuaged by fresh butter flavored with lemon-juice. The swelling caused by the application is not great, and twenty-four hours after the operation all unpleasant reminders of it have disappeared. The cauterization should not be repeated oftener than once a week. Dr. Foulis declares that he has obtained excellent results by this method of treatment. It seems to be unnecessarily severe for a malady so insignificant in appearance, but he asserts that the patients regard the cauterization as a mere bagatelle, when compared with the discomforts of the chronic angina.—*Lyon Medical*, July 21st.

**THE KORONIKO PLANT.**—This plant, which is a species of broom, and is a native of New Zealand, is eulogized as a remedy for diarrhœa, even more certain in its effects than the ordinary astringent mixtures. It is an old and well-known remedy among the Maories and up-country shepherds, especially for intestinal disturbances arising from drinking stagnant swamp-water in dry seasons. The usual method of using it is by making a strong infusion of the young leaves.—*British Med. Journal*.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE NATIONAL HEALTH BUREAU.

THE necessity for the creation of a National Health Bureau is so apparent, that it seems to us the way is prepared for the presentation to Congress of a suitable memorial upon the subject. The arguments which can be used in favor of the creation of such a bureau are all in one direction, and, when fairly presented, cannot fail to produce the desired result. The main idea which must be kept in mind, and around which all efforts must revolve, is that of regulating the sanitary interests of a large country according to some effective and authoritative system. On previous occasions we have referred to the utility of such an organization in arresting the spread of yellow fever, and of possibly preventing it altogether in those portions of the country where it was likely to be invited. But this is merely a part of the work. Not only must towns be controlled, but there should exist the authority to command the highways leading from them, and to guard against every possible chance of spreading disease. It is not alone for the purpose of investigating the causes and methods of prevention of yellow fever that such a board should be created, but of studying likewise every other so-called epidemic or contagious disease throughout the country; of protecting the public health by establishing a uniform system of statistics of mortality and of disease; of establishing a standard of qualifications to be possessed by health officers who may be appointed to such positions by the different State authorities; of controlling the drainage and water supplies of large districts of country; of establishing sanitary regulations along railways and river routes; and, in fact, having a jurisdiction over all matters relating to the preservation of life and the prevention of disease.

There is no doubt that these propositions will appeal with striking force to the popular mind in view of the great and widespread interest taken in the epidemic, and that the opportunity has come for the

profession, to bestir itself in advocating the utility of a National Sanitary Bureau.

With such ends in view, it is exceedingly important that any appeal to Congress, or any attempt at procuring the necessary legislation for the creation of a national board, should be made with great deliberation, and with the fullest appreciation of the responsibility of the undertaking. We say this much not with any desire of disparaging the efforts of certain gentlemen who have already prepared a memorial upon the subject, but for the purpose of presenting their propositions, and of obtaining any suggestions which may tend to increase the efficiency of a prospective law. The following is the text of the bill to which we refer:

I. That the Board shall be constituted of one medical officer from each of the following named departments, viz.: The Medical Department of the Army, the Medical Department of the Navy and the Marine Hospital Service, and of two physicians from civil life, selected on account of their knowledge in matters pertaining to public health. That the medical officers of the Government services for this Board shall be detailed by the Secretaries of War, of the Navy, and of the Treasury respectively, and that the three officers so designated shall select and recommend to the President for appointment the other two members of the Board.

II. That the Board so constituted shall be known as the United States Public Health Board, and that its duties shall be to obtain information upon all matters affecting the public health, to consult with the Superintendent of the Census with regard to the disease and mortality statistics to be collected and prepared under his direction; to advise the several departments of the Government, the executives of the several States, and the Commissioners of the District of Columbia, on all questions submitted by them, or whenever in the opinion of the Board such advice may tend to the preservation and improvement of the public health.

To establish a standard of the qualifications which should be possessed by a municipal health officer, to examine those who may present themselves for examination as to their fitness for such a position, and to furnish suitable formal certificates to those found to be properly qualified.

III. That the detailed Officers shall receive their usual payment allowances from their respective departments, and that the two physicians selected from civil life shall each receive compensation at the rate of \$5,000 per annum, from the funds appropriated for the use of this board.

That the ordinary sessions of the board shall be in Washington, where it shall have its office, and that at least one member of the board shall be always on duty during the usual office hours.

IV. That the board shall prepare and present to

Congress an annual report of its operations, with such recommendations as may seem to it advisable.

V. That when deemed specially desirable by the board, it may send one or more of its members to any point within the United States for the purpose of investigating a disease, or other matter specially affecting the public health,—and that the actual travelling expenses of the members so sent shall be paid from the funds appropriated for the board.

VI. That to carry out the provisions of this act, for the salaries of the civil physicians, office rent, travelling expenses, stationery, clerk hire, and miscellaneous expenses, the sum of thirty thousand dollars be appropriated, to be disbursed and accounted for by the President of the board in accordance with its directions, and on vouchers and forms to be prescribed by the Secretary of the Treasury.

#### AMERICAN PUBLIC HEALTH ASSOCIATION.

THERE is no doubt that a considerable amount of interest will be manifested in the proceedings of the next meeting of the Public Health Association. It is to be hoped that the opportunity will not be lost either upon the members themselves or upon the people. As has already been announced, the meeting is to be devoted to the discussion of the causes and prevention of yellow fever as based upon the report of the Yellow Fever Commission. There is no doubt that much valuable information will be laid before the Association, and much discussion elicited. It is also possible that a good deal of voluntary twaddle will be indulged in. In view of this latter possibility, it seems highly important that means should be taken to give place on the programme to such voluntary papers only as are passed upon by a committee. Again, in view of the probability that many excellent papers may be volunteered, and the time for their hearing be limited, it would be better, in order to give all a chance, that each author should present an abstract of his views, his paper being published in full in the Transactions.

It was certainly a wise forethought in Dr. Woodworth to present the report of the Fever Commission to this Association, as both can work so legitimately together in giving direction to popular opinion regarding the proper means for the arrest and prevention of a future epidemic. We have every reason to believe that the meeting will be a success. It certainly has the hearty good wishes of the profession of the country.

#### THE REPORT OF THE SURGEON-GENERAL.

THE report of Surgeon-General J. K. Barnes states that the work on the surgical statistics of the late war is in full progress, and that five hundred and seventy-one cases of wounds and injuries have been prepared for publication, making the aggregate of two hundred and sixty-eight thousand nine hundred and twenty-seven cases now tabulated. The Medical Library is in a prosperous condition, two thousand volumes and three thousand pamphlets having been

added during the past year. The index catalogue is completed to date, an item of intelligence in which the profession is much interested in view of the possible authorization of the publication of the work during the next session of Congress. The Surgeon-General very properly urges the measure:

"Of its great utility, not only to the medical profession, but through that profession to the people at large, there can be no doubt, and there are special reasons why it should be placed beyond the reach of casualty, and made accessible to physicians with as little delay as possible. I know of no action within the power of Congress which would at this time so greatly aid medical education, the treatment of disease, and the preservation of the public health, as the publication and distribution of this index catalogue among our leading physicians, surgeons, and hygienists."

Three hundred and fifty pages of the second volume of the Medical History of the War have been stereotyped since last report, and the work in the Record and Pension Divisions has also progressed satisfactorily. The latter is in no small degree due to the increase in clerical force authorized by the last Congress.

Some idea of the extent of labor in this department can be gained from the statement:

"The number of official demands upon this division during the fiscal year for information as to the cause of death in the case of deceased soldiers and the hospital record of invalids was 21,074, being rather more than the average number of such demands received annually since 1870. The number of unanswered cases on hand at the close of the previous fiscal year was 18,697, making the total number of cases to be searched during the year 39,771."

Although the number of assistant surgeons has been reduced to one hundred and twenty-five, there are still fifteen vacancies in that grade.

#### VISITS OF OUR BRITISH CONFRÈRES.

SIR HENRY HOLLAND and Marshall Hall were the first distinguished English physicians who paid us the compliment of a visit. They came before the days of steam navigation, when an ocean voyage was a serious affair compared with the rapid transit of the palace steamers of the present day. Sir Henry's visit was principally for literary and political observation, but Marshall Hall's was purely professional. He came to mingle with his professional brethren, and to study the growth of our medical institutions. His welcome here was worthy of the man and the reputation that preceded him. A long time elapsed before we had the pleasure of greeting another of the distinguished medical men from the mother country. Then the illustrious Spencer Wells came in 1867, with his wife and daughter. His visit is still remembered with pleasure by his brethren wherever he went.

Erichsen (with Mrs. Erichsen) made us a visit in



1874 or '75, and was received everywhere with marked attention. The Centennial year brought us Lister, Barnes, Adams, Simpson, and Lauder Brunton, all of whom left a most agreeable impress—socially and professionally. And now we see from the last number of the *British Medical Journal* (Oct. 5th): "That Mr. Callender, F.R.S., the eminent surgeon of St. Bartholomew's Hospital, is about to make a December visit to America, for the purpose of examining the surgical institutions and practice of the United States." We can assure Mr. Callender of a cordial welcome.

## Reviews and Notices of Books.

**STRICTURE OF THE MALE URETHRA: ITS RADICAL CURE.** By FESSENDEN N. OTIS, M.D., Professor of Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, etc. 8vo, pp. 350. New York: G. P. Putnam's Sons. 1878.

PROF. FESSENDEN N. OTIS has collected the various papers with which he has favored the profession on different occasions during the past eight years, and has given us in a manual of three hundred and fifty pages the results of his large experience in urethral surgery. Like all pioneers, the author has experienced much opposition and adverse criticism from those engaged in the same field. Many of those differing from him in opinion have talked and said nothing; others in a more manly spirit have published their opinions, which are quoted and replied to in the present volume.

Improvements, or, as some regard them, innovations in surgery, that differ essentially from the teachings of the past, are always decried by those who prefer to tread the beaten track, those who shirk the trouble of rooting out old doctrines and prejudices and learning anew. It may be disheartening to the author of any new method to meet with tardy recognition of facts which to him are incontrovertible, but it has always been so. Witness the operation of ovariectomy, which thirty years ago was denounced, and its chief advocate pointed at as a dangerous man. The antiseptic treatment of wounds dragged along for many years, was looked upon as the hobby of a visionary enthusiast, and only his unflinching perseverance has placed it where it now stands, accepted by the majority of practical surgeons of the Old and New World.

The views of the author may appear extreme, but they are substantiated by facts and tests that cannot be gainsaid; that they will yield good fruit may be anticipated—in fact, that they have already modified the treatment of the more unmanageable forms of urethral disease must be fairly admitted. Observations conducted in one direction and over a long period of time, must yield results; the very spirit of emulation which it begets in the many toilers in the same department can only be for good.

Dr. Otis advocates the use of bulbous sounds, a modification of the bougie à boule of M. d'Etiolles and of Bell, which he recommended to the profession in a paper read before the New York Medical Journal Association in 1870. With these sounds he has demonstrated the existence of strictures of large calibre, which he believes to be the most prolific cause of chronic urethral discharges. Most careful examinations with these instruments have enabled him to demon-

strate in carefully tabulated reports the existence of multiple strictures which would have eluded the ordinary bougie or metal sound, and have also established the fact that, contrary to received opinion, obstructions are much more frequent in the penile than in the infrapubic urethra. Dr. Otis has also observed a certain more or less constant relationship between the diameter of the flaccid penis and the urethra, or to use his words, he is prepared to state that the relationship is constant and about 1 to  $3\frac{1}{2}$ . In a penis of three inches in circumference the urethra would be 30;  $3\frac{1}{2}$ , 32;  $3\frac{3}{4}$ , 34;  $3\frac{7}{8}$ , 36; 4, 38;  $4\frac{1}{4}$  to  $4\frac{1}{2}$ , 40; and that an estimate of calibre made on this basis is reliable when the "urethra-metre" is not available. This latter instrument is an ingenious device by which the urethra can be accurately measured behind a contracted meatus or other obstruction.

The author claims a distinct individuality as regards calibre, for every urethra, "irrespective of standards." He found in ninety-six carefully measured cases that the average was 32 mm., which is a much higher estimate than we have been accustomed to recognize. To quote Dr. Otis: "Sir Henry Thompson distinctly states that if a No. 8 E bougie (16 F) passes easily into the bladder, we may be satisfied that no stricture, or at most a very slight contraction, exists." Again, quoting from the prize essay of Dr. Curtis, whom he regards as the exponent of the urethral surgery of France: "The treatment shall be considered terminated when you shall have made to enter without effort No. 21." Dr. Otis contends that stricture can be radically cured, but that it must ever remain the opprobrium of surgery if we are content with the standards set up by the English and French surgeons. To effect the radical cure it must be completely sundered, either by division or division, and he has presented us with an admirable orthrotome for cutting on the stretch. It is true that it only applies to strictures of large calibre, and that the tight ones must be dilated to admit the larger and more effectual instrument, which latter is certainly most admirably adapted to stricture of the penile portion. Dr. Otis only regards those obstructions as cured which show no disposition to contract when left to themselves. They must not entail the occasional use of a bougie.

Our author has tabulated a large number of cases that have been treated by his method, and in which there appears to be no disposition to return. The results are certainly surprising, and it is the duty of every surgeon engaged in this department to study the subject for himself; that he will do so profitably, with the light thrown upon the subject by the author, we think there can be no doubt.

**LITHOLAPAXY; or, RAPID LITHOTRITY WITH EVACUATION.** By HENRY J. BIGELOW, M.D., Boston, Mass. Pp. 42. New York: Wm. Wood & Co. 1878.

IN this little book are collected, under one cover, the three papers which Dr. Bigelow has given the profession, describing and illustrating his procedure in the crushing and entire removal, at one "sitting," of stone in the bladder. The whole subject is presented very concisely and yet very clearly. The boldness of Dr. Bigelow's proposition has called forth much criticism, particularly on the part of our English brethren, the *British Medical Journal* having gone so far as to intimate that probably no English surgeon will be induced to attempt so hazardous an experiment. That this method of treating stone in the bladder, however, is a long step in advance of previous methods, we think no candid surgeon who will thoroughly test it

can fail to be convinced. That it will be universally applicable in all cases of stone, even its originator would scarcely assert, but that, in many cases where heretofore lithotripsy, with short sittings, has been considered proper, "litholapaxy" is at least equally safe, and in most cases presents even greater immunity from dangerous consequences, will undoubtedly soon be admitted. The operation has been twice performed in the last summer in this city—once at the New York Hospital, and once at St. Luke's. In both instances the success was very gratifying, the removal of the stone having been complete and the recovery of the patients rapid, and unattended with any complication whatever. The book is one which will well repay careful perusal, and surgeons should honestly examine into the claims of an operation which we venture to assert, will eventually be recognized as the best for a very large proportion of cases of vesical calculus.

## Reports of Societies.

### NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, October 4th, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### THE LOCAL TREATMENT OF ECZEMA.

DR. H. G. PIFFARD read an interesting paper on the above subject. (See p. 321.)

The paper being before the Academy for discussion.—

DR. L. D. BULKLEY remarked that he agreed with Dr. Piffard, especially with reference to placing local treatment secondary to constitutional, hygienic, and dietetic. Except in a very small proportion of cases, the view held by most patients that some kind of local treatment was all that was necessary, was incorrect. The paper being upon the local treatment of the affection, however, Dr. Bulkley made special mention of the good effect produced by *hot water*. With him the hot water was a great addition to the therapeutical measures to be employed, especially in the treatment of eczema of the arms and hands, where there was present a thickened and cracked condition of the skin. His habitual method of treating these cases was to immerse the palm of the hand in hot water, allowing the water to cover only the affected portions of the skin. The water should be as hot as could be borne by the patient, and the immersion should be frequently repeated. After soaking the palms for several minutes he applied the diachylon ointment of Hebra spread upon muslin.

In order to prevent the ointment from becoming rancid Dr. Bulkley recommended that it be prepared according to the following formula:

R. Olei olivarum optimi..... ℥ xv.  
Lithargyri ..... ʒ iiij. + ʒ vj.  
Coque l. a. in ung. molle, et adde  
Olei lavandul..... ʒ ij.

M. ft. unguent.

The oil is to be mixed with two pounds of water, heated slowly, and the litharge to be slowly sifted in. The ointment is to be stirred until cold, and the lavender oil then to be added.

#### COMPRESSION BY MEANS OF THE ROLLER RUBBER BANDAGE.

The bandage suggested by Dr. H. A. Martin was

recommended especially for eczema affecting the lower extremities. It had an advantage over the elastic stocking in the fact that the more the patient walked the more rapid was the improvement.

Dr. Bulkley's method of using it was to have it applied before rising in the morning, to have the patient walk as much as possible during the day, and on going to bed to remove the bandage and envelop the limb in cotton, which could be secured in place by means of a handkerchief.

#### THE POISONOUS ACTION OF WATER.

Dr. Bulkley directed attention to the poisonous action of water in the treatment of eczema, especially as it occurred in children. If an attempt was made to keep the surface clean by washing it with water, the eruption could not be cured. His teaching was, that water and air should be avoided in the treatment of eczema, except in the cases alluded to. He preferred to use calamine and oxide of zinc in solution, because the remedies could be applied more evenly to the diseased surface.

It had been his custom to use *nitrate of silver* in all stages of eczema.

#### ECZEMA OF THE SCROTUM AND ANUS.

He had found it most beneficial in the treatment of eczema of the scrotum, and for that purpose had used it dissolved in nitrous ether, in the proportion of from 10 to 30 grains to the ounce.

He had found the same preparation to be very valuable in the treatment of eczema about the anus.

He had also, to considerable extent, employed the nitrate of silver in stick. In treating what was commonly called washerwoman's itch, he almost invariably touched the fissures with the solid stick of nitrate of silver. He had resorted to the same plan of treatment for eczema of the anus; if fissures were present, he burned them thoroughly, and then introduced a pledget of cotton.

DR. JOHN C. PETERS referred to the use of *Hamamelis Virginiana* in the treatment of eczema. He had employed it with favorable results for more than twenty years, more especially in connection with the eczema associated with a varicose condition of the veins and that which occurred about the anus.

He had used the tincture made from the entire plant. He had also used it internally in doses of one, two, or three drachms, as it was a mild and harmless remedy, and yet it was certainly beneficial. He had also used plumbago with benefit as well as silex.

A large number of remedies had been mentioned by Dr. Piffard, yet Dr. Peters ventured to ask him whether he could reduce their action to any principles of treatment.

DR. GARRISH spoke of the efficacy of baths containing soda or wheat bran, or starch, as a local means of treatment. He also referred to the rubber bandage as a valuable local application.

DR. PIFFARD, in closing the discussion, remarked that in a majority of cases he had not had any unpleasant results from the local use of water sufficient to keep the parts clean. In some cases irritation might be produced, but he believed that, as a rule, there was undue fear with respect to the washing process.

Reference was made to a case in which the patient, under the direction of a physician, had not washed his face for two weeks, and during the entire time had been using an ointment. The man was directed to wash his face, and when he returned the next day his appearance was very much improved.



Dr. Piffard also directed attention to a local application which he had omitted to mention in his paper. It was for the relief of the pruritis, and consisted in a saturated solution of iodoform in ether. When applied, the ether soon evaporated and left iodoform evenly diffused over the surface of the eczematous patch.

With reference to silex, it was to be mentioned that many of our mineral springs, which had acquired reputations in the treatment of skin affections, contained large quantities of silicates. The influence of silex should be studied, especially as it was one of the normal constituents of the body.

Dr. PETERS had asked for principles of treatment. The principles were to relieve the different conditions present, and not to endeavor to treat the disease by name. If we had to deal with congestion, as was commonly present in the first stage of an eczema, means must be employed to reduce it, and also to give relief to the subjective phenomena, such as heat, itching, etc. For that purpose astringents were the most serviceable.

In cases in which there was more or less profuse suppuration, there was no better local treatment than that by the use of mercurial preparations. How they checked the suppuration was not well understood.

In the third stage, or dry stage, applications somewhat stimulating in nature should be used, and experience had proved that the best results were obtained by the use of some preparation of tar.

When the tissues were infiltrated and thickened, remedies must be employed which caused either absorption or effusion.

The Academy then adjourned.

*Stated Meeting October 17, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### THE PROBLEM OF YELLOW FEVER.

DR. OCTAVIUS A. WHITE read a brief paper upon the above subject, in which he first made reference to the voluminous but unsatisfactory literature of the subject, second, to the fact that its origin, nature, and mode of propagation were yet mooted questions, and then passed to the consideration of a few prominent points taught us by experience in connection with the epidemics of former years.

With reference to the present epidemic but little at present was known, except that it originated in a populous city, and from that point had spread over a large area of our country.

Dr. White believed that the present epidemic afforded the most favorable opportunity which had ever been given to this country to investigate certain questions with reference to yellow fever. He further believed that the disease could not prevail as an epidemic in this country without the presence of certain conditions, namely: heat, moisture, and the effluvia arising from decomposing animal matter. A vitiated state of the atmosphere he regarded as a prime condition necessary to its existence, and a protracted high range of temperature was a potent element in the propagation of the yellow fever poison. He thought the general belief was that the disease possessed a specific element, and that the theory of a *contagium vivum* was the most plausible by which to explain its origin and spread. The present scourge originated by importation.

Yellow fever was strictly a disease incident to tropical latitudes, and the germs perished outright

upon the appearance of a heavy frost, or after the occurrence of a succession of light frosts.

Those who suffered first and most severely were invariably freshly arrived emigrants, and the severity of the attack was in direct proportion to the distance of their original dwelling from the tropical region. Reference was then made to cases which seemed to prove that acclimation was not a sure protection against the disease.

There were some distinguished writers who still affirmed that the disease was not contagious.

His own experience in connection with yellow fever had led him to the following conclusions: that the disease was propagated through a specific *matéria morbi*, and that the peculiar conditions necessary for its diffusion were superabundant moisture, intense heat, and general filth.

He believed it to be impossible to introduce the disease except into places where those conditions were present. With reference to treatment, that which seemed successful during one season might differ from that required in another, because of the variation in the type of the disease. For example, the malarial element might prevail in one season and some other element in the next, and thus necessitate a variation in the plan of treatment. In spite of such variations, however, the disease never lost its individuality.

The type of the disease always varied in each particular locality in which it prevailed, the modifications arising from accidental peculiarities of season and sanitary surroundings. Every fact bearing upon those points Dr. White believed to be of vital importance, because of its close relation to the question of prevention.

With reference to the possibility of communicating the disease by contagion, the present system of quarantine in our country had been found inadequate. The quarantine regulations at some of our harbors had proved themselves efficient, but the same vigorous system should extend like a cordon along our entire coast. Arguments alone, however, could not determine any one of the points under consideration in connection with yellow fever, but they must be left to be adjudicated by facts.

Dr. White then directed attention to the extension of the disease as exhibited by Dr. Woodworth's tables. In every instance where the disease made its appearance in a new locality, the first death was in the person of one who had been sent from New Orleans. The deduction was, that if the disease was simply malarial in character, it might have broken out in all those places at the same time.

The paper being before the Academy for discussion—

DR. AUSTIN FLINT remarked that the prevalence of this terrible epidemic might bring great good out of great evil, if it led to investigations which hereafter would enable us to stamp out a similar invasion. The important questions to be placed before the profession should relate to that practical result.

With reference to certain etiological points in connection with yellow fever, the opinion of the profession at the present time was quite unanimous, and these points had an important bearing upon the prevention of the disease. He believed it was generally received that the disease depended upon a specific cause or germ. The term germ might be used figuratively or literally, but he thought favorably of its use in the latter sense.

Again, he thought it was generally accepted that certain accessory circumstances were requisite to give vigor to that poison, such as accumulation of filth and various deviations from good sanitary conditions.

Neither factor alone could give rise to yellow fever, but it was a union of both which led to the development of an epidemic. If such a view was correct etiologically, it should be in the power of the medical profession, aided by the proper authorities, in the first place to prevent, with considerable certainty, by properly regulated quarantine, the introduction of the germ. It should also be in the power of the profession and proper authorities to stamp out an epidemic by the prompt and efficient employment of disinfectants.

He thought one great point to be determined was whether the history of the present epidemic corroborated the views now generally held in relation to yellow fever, or whether they tended to their overthrow.

In studying the problem of yellow fever, it was very important that the facts bearing upon the points stated should be ascertained in most of the places which had suffered from the disease. Citations of authorities, reports of microscopical examinations, etc., would not meet the requisition, but what was necessary was an accumulation of facts which would enable all to study the subject and arrive at conclusions as well as those who were engaged in collecting them.

How far any measures had been resorted to with the view of disinfecting the invaded cities, or what had been done with reference to stringency in quarantine regulations, was not at the present time known, and could only be determined when the epidemic had fully subsided.

Had such measures been efficient, or had they been inefficient?

Dr. Flint expressed his own strong conviction that with timely and efficient measures of quarantine and disinfection, this epidemic disease might be prevented, or, if not prevented, it might be invariably crushed.

Dr. JOHN C. PETERS exhibited maps showing the course of the present epidemic, and stated that yellow fever was introduced by importation into New Orleans as early as May 23d of this year, and that before July 12th, thirty or forty deaths had occurred, the reports of which, at the time, were suppressed.

Commenting upon the origin of the disease, Dr. Peters traced it to the spotted typhus which was carried to Martinique by the French, where, by union with malarial fever, a new disease was developed which was called yellow fever. He believed that in every instance in which yellow fever had appeared in this country it could be traced to importation, and furthermore, that if it was brought into a clean, healthy place it would disappear. Typhus was one of the most contagious of diseases, and yet, with properly regulated hospitals, absolute ventilation, and perfect cleanliness, the disease could be stamped out. Typhoid fever became infectious by changes which took place in the discharges of the patient after they had left the body, and the same was true of cholera and yellow fever. Unless the bed and body linen containing the perspiration from a yellow fever patient was washed very early and disinfected, it became a carrier of the disease. He thought that clothing merely exposed to the atmosphere of the place in which yellow fever was prevailing, or shut up in trunks in such localities, would not convey the disease. It must have been upon the body of the sick, or hanging in the room occupied by the sick, or in those in close proximity to the sick, in order to become so contaminated as to be able to communicate the disease to those who subsequently came in contact with it. He believed that with thorough health officers, and an efficient guard of troops to enforce regulations with reference to cleansing the streets, the disease would

have been stamped out in the cities where it is now prevailing.

Thorough cleansing and careful quarantine were the measures by which an epidemic of yellow fever should be met.

Dr. ELASHA HARRIS remarked that some of the plainest truths, with reference to preventive measures, seemed to have been overlooked in the region where yellow fever was prevailing. He believed that a period had been reached in the experience of the medical profession which would enable them to say what preventive measures were required, and furthermore there was no doubt that the doctrine of stamping out the disease was correct. The single purpose should be to make investigations with that end in view, and to accomplish what was desired involved the whole question of State authority and the supervision of quarantine service.

Dr. A. C. POST suggested questions which he regarded as practically important, especially with reference to the exclusion of the disease. They were suggested as a basis of investigation with reference to preventive measures.

1. Is yellow fever contagious, or personally communicated by contact, or by inhalation of noxious germs from the lungs, or from the external surface of the patient?

2. Are the germs of the disease given off from the excretions of the patient, as they pass from the body, or after they have undergone fermentation?

3. Are the germs of the disease given off from the bodies of those who have died of the disease before or after interment?

4. Is it safe to allow persons who have been exposed to the disease by a more or less protracted sojourn in an infected district to escape to a healthy locality in town or in country, provided that extreme care is taken to exclude fomites?

5. Is the clothing on the body of the person so escaping, when fully exposed to the air, to be regarded as fomites capable of reproducing the disease?

6. When clothing or merchandise has been contaminated by exposure within an infected district, can it be thoroughly disinfected by ventilation in a pure atmosphere, by boiling or steaming, or by the chemical action of gases, such as chlorine, bromine, sulphurous acid, etc.?

7. Is it safe to allow cars or boats to go from an infected locality to a town or city not infected?

8. Would it not be a wise precaution to have passengers conveyed to such uninfected towns by cars or boats which have not been within the infected district?

With reference to the fourth question, Dr. Post expressed the opinion that, if fomites were excluded, it was safe to allow persons to escape.

With reference to the sixth question he thought the hair of females should be excluded.

Dr. HENZOG suggested the following questions:

Granted that yellow fever was an imported disease, why was it that in New Orleans the disease prevailed epidemically one year and the next year the city was exempt? Why was it that Louisville was exempt one year and perhaps invaded by an epidemic the next? Why was it that a large number of towns in the infected region of country escaped altogether? He believed those questions could not be answered within four or six weeks, or by a simple commission composed of three persons, but that an extended investigation was necessary in which there was a co-operation of medical men, engineers, meteorologists, and others.



DR. PETERS, in answer to one of Dr. Post's questions, stated that he believed, however filthy the city might be into which the disease was introduced, if the physicians and nurses and attendants would do their full duty, and disinfect everything which came in contact with the patient, and everything which was discharged from him, that the disease would be arrested in every instance.

DR. ANDERSON remarked that the important question was how to prevent the disease from developing. That being done, other measures were unnecessary.

There being no further discussion, the Academy adjourned.

## New Instruments.

### A CHISEL FOR DIVIDING BONE IN THE OPERATION OF OSTEOTOMY.

By CHARLES F. POORE, M.D.,

NEW YORK.

THE accompanying cuts represent a chisel for dividing the bone in the operation of osteotomy. They should have appeared in my paper on Osteotomy in THE MEDICAL RECORD of September 7th.



FIG. 1.



FIG. 2.

The requirements are: 1st. That the bone shall not be splintered by the instrument being too thick. 2d. That the chisel shall penetrate readily into the bone.

The total length of the chisel is five and one-half inches. The handle is two and a half, and the chisel proper three inches long. I have two chisels, one three-eighths, the other four-eighths of an inch wide.

Beginning at the end of the handle the instrument should gradually slope down to the cutting edge, and from the former to the latter point the flat surface should present a perfectly straight line. The steel should be tempered in such a manner that the edge will not turn, and at the same time not be so hard as to be brittle. Fig. 1 represents a profile view. Fig. 2 shows the flat surface.

QUINIA and tannic acid (4 to 1) in solution in water, syrup, liquorice, etc., so highly recommended by Prof. C. Binz, of Bonn, in the abortive treatment of pertussis, has found a valuable supporter in Dr. C. F. Swan, of South Chicago, Ill.—*Chicago Medical Journal and Examiner*.

JOHN HILTON, F.R.C.S., F.R.S., the eminent London surgeon, formerly of Guy's Hospital, died the 14th ult., in his 74th year. He had been President of the R.C.S., and of the Pathological and New Sydenham Societies. He was Surgeon-Extraordinary to the Queen, etc. His best-known work was "On Rest and Pain;" his other works were "Lectures on the Cranium," "Clinical Lectures on Surgery," "On Puncturing the Bladder per Rectum," and many contributions to various medical journals.

## Correspondence.

### YELLOW FEVER AND FILTH.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR DR.:—In your "editorial," Sept. 14, 1878, you quote from a letter from New Orleans as follows: "The cleaner the streets and the more fashionable the quarter, the greater apparently is the violence; while the filthiest streets are either wholly free from taint, or have only widely-scattered cases of a mild type."

This, you say, of course, combats our generally received ideas.

It only apparently combats those ideas. In yellow fever one attack, as a rule, confers immunity. New Orleans, for years past, has suffered from repeated circumscribed epidemics, *i. e.*, outbreaks of the fever confined to certain localities. These partial epidemics have always originated in the filthiest quarters.

The people of these districts are generally poor and ignorant, neglectful of all sanitary measures, and are unable to flee from the pestilence. Those who recover are not susceptible to another attack. When these partial epidemics occur every year or two, only those children born during the interim, or strangers, or those residents whose good habits and robust health protected them previously, who have since become careless or debilitated, furnish material for the fever.

Thus each succeeding epidemic finds less material, until the disease in these localities becomes almost exclusively confined to strangers. Hence the name, "Stranger's fever," by which it is called in some portions of the tropics.

Everything else equal, the cleaner the quarter, the more manageable the disease. This, I take it, is a universal law, which no imperfect deductions can refute.

Very truly yours,

BENJ. S. PURSE.

SAVANNAH, GA., Oct. 10, 1878.

### YELLOW FEVER AND FROST.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I noticed a statement in the RECORD of September 21st, that the special poison of yellow fever is killed by frost. I believe this has been the general opinion until recently, though many examples have occurred that would seem to render it doubtful.

I therefore beg leave to submit the following experience, which may be of interest at the present time:

A severe epidemic of yellow fever occurred on board the U. S. S. *Susquehanna*, at Grey Town, Central America, in 1858. The *Susquehanna* came direct from England and the Mediterranean a few months before with a perfectly healthy crew, and yellow fever was unknown at Grey Town. As soon as the fever showed itself the vessel went to sea, bound north, but in the course of a few days so many firemen and coal-heavers were prostrated by the disease that she was obliged to touch at Jamaica, *en route* to procure men to work the ship.

By kind permission of the authorities nearly one hundred cases were landed at the Royal Naval Hospital, Kingston, and the ship proceeded on her way north, the disease still continuing its ravages, and on her arrival at New York one hundred additional cases were landed at the Quarantine Hospital.

Yellow fever had prevailed on board the *Susquehanna* on a previous cruise, but in the interim she had

been exposed to the cold climate of the north, and as there was no fever at Grey Town and no record that the scourge had ever visited that place, the supposition is that the poison had remained dormant in the hold of the ship, awaiting the proper surroundings of temperature, moisture, etc., to resume its activity. The bilges of the ship were not accessible at their after part, and on tearing up the planking, were found very foul. Nearly all those who were employed or slept on the lower deck, such as firemen and coal-heavers, contracted the fever, whilst all who were employed or slept on the upper deck escaped, plainly showing the local origin of the disease.

After the ship had been thoroughly fumigated and disinfected, and had remained exposed to wind and weather for several months, two firemen\* who were sent on board to examine the condition of the machinery, contracted the fever a second time, so enduring was the nature of the poison. After this sad experience the *Susquehanna* remained dismantled in the harbor of New York, exposed to the freezing temperature of several winters, and was again put into commission as the Flag Ship of the North Atlantic Squadron; but on her return to the tropics the fever reappeared aboard of her.

From the above facts I am led to believe that frost does not kill the yellow fever germ, but merely renders it torpid until congenial influences and surroundings enable it to resume its activity and reassert its dreadful sway.

Very respectfully yours,

ROBERT T. MACCOUN, M.D.,

U. S. Navy.

## POLYPOID GROWTHS IN THE EAR.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—A friend has called my attention to the fact that in my article, recently published in your journal ("Practical Remarks on the Removal of Polypoid Growths from the Ear," July 27, 1878), I have not stated with sufficient clearness when traction and when simple excision should be employed in the removal of aural polypi by means of Blake's snare. As the criticism seems to me to be justified by the facts, will you grant me the privilege of stating more fully in your columns my views in regard to the point in question?

Where the polypus is moderately firm and of large size,—so large that the exact situation of the peduncle cannot readily be ascertained, and where at the same time its physical characteristics (color, texture, mobility) justify the belief that it grows from the mucous membrane of the middle ear (tympanic cavity proper or some part of the communicating system of cells). I prefer to use traction. The peduncle, in these larger polypi, is often a mere cord, lying in a sinus into which it would be very difficult to introduce a wire loop. In such cases, if traction be used upon the main mass of the growth, one often succeeds in pulling out this long peduncle entire; whereas, if the mass be simply excised, by means of repeated seizures, the last excision will still leave, concealed within the sinus, a peduncle, which it would be very difficult to destroy by caustics, and which—if not destroyed—will almost certainly reproduce another polypus.

On the other hand, if the polypus is soft and of such a size that the point of origin of the peduncle can be ascertained, it is better, I believe, to excise the mass by simply drawing the wire loop into the canula.

without exerting any traction upon the mass as a whole. Owing to the softness of these masses, traction would merely cause the patient unnecessary pain without removing the growth more perfectly than if simple excision had been practised.

Where the polypoid growth is situated in the tympanic cavity proper, excision alone should be practised.

Finally, if the polypus be firm in texture and have a short and broad peduncle that springs from the cutaneous lining of the external auditory canal, excision alone should be employed.

ALBERT H. BUCK, M.D.

## AN INDEX RERUM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Dr. Hurd's mode of noting important facts in medical literature is a good one, but the same end may be accomplished *without spoiling his books*. I have a small set of pigeon-holes made to fit my desk. These holes are four and one-half by three inches in size, and are labelled from A to Z. I take common foolscap, double each sheet twice upon itself, cut it into eight slips, and turn up a margin of half an inch on the left side of each slip, which is about eight inches by three inches in size, and large enough to note any important fact. In reading medical works, journals, or scientific periodicals, I note down on one of these slips any fact or statement I wish to preserve, head it with its appropriate "catch-word" in a larger hand, and note the authority, volume, and page. This slip I place in its proper pigeon-hole, and thus provide myself with an alphabetical register of medical and scientific facts (index and notes combined)—a *ready reference*, which I have found of great value.

The simplicity of this plan (which I have used satisfactorily for fifteen years) will commend it to the student and busy practitioner.

At the end of the year the slips may be arranged in alphabetical order, and pasted together by their folded margins into book form.

C. J. CLEBORNE, M.D.

NAVAL HOSPITAL, Portsmouth, N. H.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department for the two weeks ending October 19, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Oct. 12, 1878. | 0             | 25             | 43             | 4                          | 0        | 35          | 0          | 0             |
| Oct. 19, 1878. | 0             | 28             | 43             | 1                          | 1        | 48          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE  
WASHINGTON, D. C., Oct. 19, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during the past week under the National Quarantine Act:

New Orleans, La.—During the week ending yesterday afternoon, there were 976 cases of yellow fever

\* Vide account of yellow fever on board U. S. S. *Susquehanna*, *American Journal Medical Sciences*, 1858.



and 235 deaths, of which 89 cases and 36 deaths occurred in the last twenty-four hours reported. Total cases, 12,182; deaths, 3,635.

No cases of yellow fever at *Port Eads* or *South West Pass* during the past week.

*Morgan City, La.*—There were 16 deaths from yellow fever during the last week. The number of cases was incorrectly given for last report. Total cases to date reported to be about 432; total deaths, 87.

*Mobile, Ala.*—For the week ending yesterday noon there were 56 cases of yellow fever and 12 deaths. Total cases, 93; deaths, 32.

*Decatur, Ala.*—73 cases of yellow fever and 12 deaths during the week ending yesterday. Total cases, 155; deaths, 27.

*Ocean Springs, Miss.*—During the week ending yesterday noon there were 25 cases of yellow fever and 1 death. Total cases, 128; deaths, 29.

*Pass Christian, Miss.*—There were 32 new cases of yellow fever and 4 deaths for the week ending yesterday. Total cases, 126; deaths, 13.

*Bay St. Louis, Miss.*—During the week ending yesterday evening there were 52 cases of yellow fever and 12 deaths. Total cases, 338; deaths, 68. The fever is on the decrease for want of material. The cases occurring now are more malignant.

*Friar's Point, Miss.*—8 cases of yellow fever and 2 deaths during the week ending yesterday evening. Total cases, 21; deaths, 6.

*Crystal Springs, Miss.*—The yellow fever is confined principally to the country around *Dry Grove* and *Lebanon Church*. No case as yet occurred within the limits of the village of Crystal Springs. During the past week there were 31 cases and 8 deaths. Total cases, 112; deaths, 44.

*Baton Rouge, Miss.*—During the week ending yesterday at 9 A.M. there were 301 cases of yellow fever and 16 deaths. Total cases, 2,170; deaths, 129.

*Pascagoula, Miss.*—Total cases of yellow fever at quarantine to Oct. 12th, 5; deaths, 2.

*Scranton, Miss.*—Total cases of yellow fever to Oct. 12th, 5; deaths, 3.

*Vicksburg, Miss.*—For the past week there were 32 deaths from yellow fever in the city and 64 in the county of Warren, outside of the city. Total deaths in city and county, 1,074.

*Holly Springs, Miss.*—Total number of cases of yellow fever to yesterday evening, 1,117; deaths, 285. About 200 cases under treatment. The fever is spreading into the surrounding country. A slight frost occurred in the night of Oct. 16th.

*Grenada, Miss.*—For the week ending yesterday evening, there were 4 new cases of yellow fever and 2 deaths. The fever is spreading into the country. In 4 families, containing 97 unacclimated persons, there occurred 41 cases and 2 deaths during the past week. Total deaths in Grenada and adjacent country, 327.

*Bilston, Miss.*—Total cases of yellow fever to yesterday evening, 117; deaths, 31. The first case occurred Aug. 12th.

*Hernando, Miss.*—During the week ending yesterday evening, there were 50 cases of yellow fever and 23 deaths. Several of the cases from one to three miles in the country. Total cases, 133; deaths, 56.

A light frost was observed this morning.

*Memphis, Tenn.*—For the week ending the evening of the 17th inst. there were 103 deaths from yellow fever. Total deaths, 2,892.

Dr. Thornton, in charge of the Marine Hospital Service at Memphis, has the fever.

*Chattanooga, Tenn.*—101 new cases of yellow fever

and 30 deaths for the week ending at four o'clock P.M. yesterday.

*Paris, Tenn.*—No cases of yellow fever or deaths for the week ending yesterday afternoon. A frost has occurred, and no further trouble is expected.

*Milan, Tenn.*—The first case of yellow fever (a refugee) occurred Aug. 26th. The first case among inhabitants Oct. 12th. Total cases to yesterday, 3; deaths, 3.

*Cairo, Ill.*—No report of cases or deaths received. Assistant Surgeon Roswell Waldo, of the Marine Hospital Service, died of the fever at his post yesterday.

*St. Louis, Mo.*—4 deaths from yellow fever at quarantine during the past week.

*Louisville, Ky.*—For the week ending yesterday there were 15 new cases of yellow fever and 5 deaths. Of these numbers 14 cases and 5 deaths were among the inhabitants in the locality before described. Total cases, 127; deaths, 54; of which 89 cases and 34 deaths were among refugees.

*Key West, Fla.*—No new cases of yellow fever during the week. One death occurred on the 12th inst. Total cases, 37; deaths, 17.

No reports received from the following places, where the yellow fever exists: *Plaquemine, La.*; *Port Gibson, Miss.*; *Mississippi City, Miss.*; *Greenville, Miss.*; *Spring Hill, Miss.*; *Water Valley, Miss.*; *Biloxi, Miss.*; *Canton, Miss.*; *Brownsville, Tenn.*; *Grand Junction, Tenn.*; *Hickman, Ky.*; and *Gallipolis, Ohio.*

*Havana, Cuba.*—24 deaths from yellow fever and 1 from small-pox for the week ending Oct. 12th. The deaths from all causes for the months of April, May, and June last were 3,030, an increase of 989 deaths over the total for the same months of 1877; of this increase 535 deaths were from small-pox, 98 from yellow fever, and 130 from diarrhoea. The deaths from yellow fever the past summer are recapitulated as follows: April, 28; May, 53; June, 184; July, 504; August, 374; and September (to the 28th), 168—making a total of 1,311 deaths.

*Matanzas, Cuba.*—Official returns of the Board of Health for the months of June, July, August, and September show that during that period there were 279 cases of yellow fever, with 91 deaths. Cases are now rare, and the fever has almost ceased.

*Morocco, Africa.*—Advices from Tangier up to Sept. 21st report the prevalence of cholera, small-pox, and malignant fevers throughout the empire, except in the country fronting the Spanish coast. Small-pox prevails in every port except Tangier and Tetnan. The deaths from cholera at Casahlauca, a port of 5,000 inhabitants, were on the increase, and numbered 103 on the 17th of September. Hundreds have died in the interior from cholera, fevers, and starvation, especially in the middle and southern provinces.—Jno. M. Woodworth, Surgeon-General U. S. Marine Hospital Service.

THE LATE DR. STEPHEN ROGERS.—At the last meeting of the Medico-Legal Society, held October 2, 1878, the following resolutions of respect were unanimously passed:

Whereas, Our beloved associate, Dr. Stephen Rogers, has been removed from us by the hand of death, to show our high appreciation of him as a physician, associate, and friend, we hereby offer the following resolutions:

Resolved, That we, the members of the Medico-Legal Society, tender to the bereaved and intimate friends of the deceased our heartfelt sympathy in the removal of one whose life, though brief, was full of

good deeds; whose example (though life is ended) lives in the memory of his associates and friends; whose character death cannot rob of its lustre; whose pure life, though finished on earth, is but begun in a higher sphere.

*Resolved*, That a copy of these resolutions be sent to the family, and also that they be published in all the prominent medical journals and newspapers in the country.

WILLIAM SHRABY, LL.B.

C. S. WOOD, M.D.

THOMAS C. FINNELL, M.D.

Attest:

G. W. WELLS, M.D., Sec. Medico-Legal Society.

**MEDICAL HONORS.**—At the meeting of the British Medical Association, held at Bath, August 6, 1878, the following eminent foreigners were elected honorary members, viz.: Dr. Theodore Billroth, Vienna; Dr. Charcot, Paris; Dr. Esmarch, Kiel; Dr. O. Liebreich, Berlin; Dr. Ludwig, Leipsic; M. Pasteur, Paris; and Dr. L. A. Sayre, New York.

**USES OF IODOFORM.**—Dr. Cuffer extols the anæsthetic action of iodoform in fissura ani, hemorrhoids, laryngeal affections, and ulcerated cancers, especially those located on the face, in the mouth, breast, and cervix uteri; also its undeniable action on simple ulcers. In the affections of the larynx and uterus he employs a ten per cent. solution of iodoform in ether, by means of spray.—*Centralblatt f. Chir.*, No. 25.

**SQUILLS AS A DIURETIC.**—M. Fort reports in the *Paris Medical*, a case of ascites in which he employed with success the following treatment. The patient was a child of five years. The ascites was of long standing; its cause could not be ascertained, and from its course it appeared to be idiopathic in character. He prescribed moderate frictions over the abdomen, morning and evening, with a mixture of tincture of squills and tincture of digitalis. Every third day a teaspoonful of eau-de-vie allemande (a preparation consisting of jalap, turbith, and scammony dissolved in brandy) was administered as a purgative. Three times a day a teaspoonful of the following was given, either pure or in gruel:

R. Oxymel scillæ..... ʒ iijss.

Syrupi digitalis..... ʒ vi.

Syrupi acaciæ ..... ʒ v.

M.

The cure was complete at the end of two months.

**NEURALGIC TOOTHACHE.**—Dr. Darvaris recommends quinine powder as a local application for neuralgic toothache. The patient should dip a finger into fresh water and then into the quinine powder, and rub it forcibly on the gum in the neighborhood of the painful tooth. The application should be repeated two or three times in succession. The bitter taste of the medicine should be borne as long as possible. Dr. Darvaris tried this remedy first on himself, and then on numerous other persons, among them many who had tried other remedies in vain. It invariably produced a rapid alleviation of the pain.—*Allg. med. Cent. Zeit.*

**MILK AS A PROPHYLACTIC AGAINST LEAD-POISONING.**—The *Journal de Médecine* reports a remarkable instance of the regular consumption of milk by workmen in white-lead factories. It was noticed in some French lead-mills, that among a large number of workmen, two, who daily consumed a large quantity of milk, remained free from the injurious effects of the lead. A daily ration of a quart of milk was then given to each workman, and lead-colic soon became unknown. From 1868 to 1871, no case of colic occurred in these factories.—*Allg. med. Cent. Zeit.*

A NEW medical journal for London, the *International Medico-Chirurgical Gazette of London*, to appear Nov. 1st next, and weekly thereafter. It is to be connected with the *Allgemeine Wiener Medizinische Zeitung*.

**CURARE IN EPILEPSY.**—Kunze states that *curare* is a cure for epilepsy of long standing. He recommends a solution of gr. viij. to ℥ lxxv. of water, and gr. ij. of hydrochloric acid. Inject grt. viij. of the solution under the skin once a week. He has obtained cures from eight to ten injections in cases of several years' standing.

**KUMYSS.**—Chicago has, for several years, been selling *kumyss* as a beverage as well as a medicine. During the summer it is quite fashionable. "Kumyss on draught," say the placards in the windows.

**EDWARD BELLAMY, F.R.C.S.**, advocates, in a recent issue of the *Lancet*, the treatment of wounds of the superficial palmar arch by acupressure when the bleeding points cannot be secured.

**FEMALE PHYSICIANS.**—The following facts, which are taken from *l'Avenir des Femmes*, a paper edited by M. Léon Richer, may prove interesting to our readers.

The Medical Faculty of Boston apparently deserves the credit of being the first to receive female students; this was in the year 1848. Zurich admitted its first female student in 1862; and in Russia, the *Ecole de Médecine de Saint-Petersbourg* was thrown open to women in 1872. In Germany, the Universities have only in rare instances granted diplomas to women. The first female to receive the diploma of Doctor of Medicine in that country was Mlle. von Siebold. Since 1874, Leipsic has graduated three female doctors. In Italy, the higher schools were only established in 1864, the municipality of Milan taking the initiative; and up to the present time only one woman has been granted a diploma. This was Mlle. Giraldi, who received the degree of Licentiate of Letters in Naples. In France, the first "bachelière" (Mlle. Daubic) was received in 1861, and the female physician (Mde. Garret) in 1870. The University of London has been the most recalcitrant. It is only since the vote of the 15th of last January that women have been admitted to the examinations for all the diplomas, viz., those of medicine, arts, sciences, and law.

**CREMATION.**—A decree, legalizing the cremation of human bodies, went into force in Gotha on October 1st. A special edifice has been constructed for the purpose of cremation.

**M. EMILE GROMIER**, Professor of Legal Medicine in the Medical Faculty of Lyons, died recently at the age of 68 years. In 1845, he received the appointment of Medical Expert to the Courts, a position which he held for twenty-five years. At the reorganization of the *École de Lyon*, in 1854, he was appointed Professor of Internal Medicine, and at the creation of the *Faculté de Lyon*, in 1877, he obtained the chair of Legal Medicine, a position to which his labors in the special field gave him a just claim.

**POISONING BY THE CYANIDE OF POTASSIUM.**—Dr. Auguste Fisher, of Prague, believing that he had discovered in the hydrochlorate of ammonia, an antidote for the poisonous effects of cyanide of potassium, recently submitted his discovery to the test of personal experiment. He expired in the most intense suffering a few minutes after taking the drug. He was the author of a work entitled: *The Way to Rend Cyanide of Potassium Innocuous.*—*La France Médicale*



## Original Lectures.

## CLINICAL LECTURE ON UTERINE FIBROIDS.

DELIVERED BY

T. GAILLARD THOMAS, M.D.,

PROFESSOR OF OBSTETRICS AND THE DISEASES OF WOMEN AND CHILDREN IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

## SUBMUCOUS FIBROID.

GENTLEMEN:—The first patient whom I present to you to-day is Margaret C., a native of Ireland, thirty-seven years of age, and unmarried. She comes to us with a very interesting ailment, and as she is unwilling to give the history of it in public, I will run briefly over it for you as she related it to me in my private room. Eighteen months ago, having previously enjoyed good health, she was taken with a violent uterine hemorrhage, without any assignable cause. It has never ceased up to the present time, except for very brief periods, and almost all the other symptoms from which she is suffering, and which will be mentioned presently, are referable to this long-continued loss of blood. As previous to the first appearance of the hemorrhage she had subjected herself to the risk of utero-gestation, she has gotten the idea that she is pregnant, and that the flow is due to the retention of the fetus in the uterus. Indeed, she declares that a physician distinctly told her that this was the case. This belief has naturally caused her a very great amount of mental suffering, and so much has she worried over the matter that she has become almost a hypochondriac in consequence. At present I find that her pulse is 120, and though it is, no doubt, somewhat excited by coming before you, it is probably never below 100. This is because her blood has become so impoverished by the constant drain upon the system, that the heart has to act much more frequently than it ought normally to do. She is very anemic in appearance, and there is a systolic murmur at the base of the heart.

Suppose, now, that, instead of coming here, this patient had presented herself at your office, what would have been the suggestions which would have presented themselves to your mind as accounting for the symptoms which are given? As the woman is thirty-seven years of age, one of the first ideas to occur might be that she was approaching the "change of life," and that the flowing was probably in consequence of this. But you must never take any such thing for granted; and in connection with the menopause it is well to remember that the irregularities incidental to that period are not nearly so marked as in this case. You should, therefore, insist on a physical examination before expressing any opinion whatever upon it.

Accordingly, with the view of finding out, if possible, the cause of this long-continued flooding, I proposed an examination to the patient, but found it somewhat difficult to make on account of her peculiarly excitable condition. The woman being placed upon her back, when I passed my fingers into the vagina I at once felt quite a large mass protruding from the os uteri, which seemed globular in outline, and was altogether too hard for any product of conception. I felt confident that it could be one of only two things: what I show you in this model (a fibroid projecting from the mouth of the uterus), or what I show you in this one (an inverted uterus). Now let

us suppose that you were practising in some remote district, where it was impossible for you to call into consultation any expert in such matters, and this case should come into your hands. It would be very important for you to be able to decide which of these two conditions was present, so that you might know whether to remove the mass or not; and the question naturally arises whether it would be possible for you to determine the matter with absolute certainty. I do not hesitate to say with the greatest confidence that it would; and I will show you in what manner it could be done. In the first place, one is not able to make out the character of the mass by grasping it with the fingers. Some authorities have declared that an anæsthetic should never be given when you are about to remove a fibroid, on account of the value of the sensations of the patient in a diagnostic point of view. I am quite sure that all manipulations would in our nervous patient cause an outcry which would render this means of diagnosis very unreliable. How then shall we settle the diagnosis? The method that I employed in the examining-room was as follows: I first resorted to conjoined manipulation, the patient still lying upon the back. Now, by this means we ought to find simply a vacant space in the ordinary position of the uterus, in case the organ is inverted; but, instead of that, I could distinctly make out a firm, solid body in this situation. Next, I placed the woman upon the side, in Sims' position, and, after the adjustment of the speculum, endeavored to introduce the uterine sound. I had no difficulty in slipping it around past the tumor into a cavity, which there could be no doubt was the cavity of the uterus, to the extent of two and a half inches, and in the normal curve of the organ. Furthermore, I rocked the sound backward and forward while it was still in the cavity, and, placing my disengaged hand upon the abdomen, I could very plainly feel the fundus moving under it. Then, finally, in order to make assurance doubly sure, I passed the sound into the bladder, and, introducing the forefinger of my other hand into the rectum, I could again feel the same hard mass between them which I had detected on conjoined manipulation; while, if the uterus had been inverted, the end of the sound would have been separated from the finger only by the walls of the bladder and rectum. If you were so situated as I have intimated, and had obtained these results by your examination, you could be perfectly certain that you had a fibroid, and not an inverted uterus, to deal with, and need feel no hesitancy about operating.

Now as to the operation demanded here; what is the best method of performing it? As the patient lives in a remote part of the city, and is furthermore not altogether in a normal mental condition, I should not be at all willing to run the risk of operation at the clinic, unless I should put in a very firm tampon before sending her away, and could feel sure that she had some reliable physician to look after her when she had returned home. I want her to enter my service at the Woman's Hospital, so that I can operate under the most favorable circumstances; but she expresses herself as being entirely unwilling to go into the institution. I fear, therefore, that she will pass from our notice, and that these profuse hemorrhages will go on, and perhaps increase, until she will finally succumb to them. The method which I should adopt is this: I would place the patient on the side, and, having introduced the speculum, seize and make moderate traction upon the fibroid by means of a pair of vulsulum forceps. Then with a spoon made of steel, nickle-plated or covered with silver, and having a serrated

edge, which I have described under the name of the "serrated scoop," and which I have found exceedingly useful in such operations, I would cut through the attachments of the tumor, completely severing it at the base. The separation is accomplished with the greatest rapidity and ease in this manner, and such a sawing movement is not accompanied by much hemorrhage, for the reason that the vessels are so much bruised during their division.

This instrument is especially adapted for the removal of fibroids with very large bases, and several times I have been able to accomplish this successfully by it in cases where I had previously failed by other means.

#### INTERSTITIAL FIBROID.

Our next patient to-day is Mrs. Catherine F., a native of the United States, and thirty-nine years of age. She tells us that she has been married twice, but that she has never had either any children or miscarriages. She was first married twenty years ago, and her husband lived for five years. After his death she remained a widow for two years, when she married again, and since then has continued to live with the second husband up to the present time. It is not on account of sterility, however, that she now comes to us for advice. This is the history which she gives of the trouble of which she complains: She says that for the last four or five years she has suffered from a feeling of heaviness and distress, accompanied by bearing-down pain, across the lower part of the abdomen, and that just about a year ago she was taken with a severe flooding, which was accompanied and followed by much more severe pain than she had been accustomed to feel, together with some febrile reaction. For a time she was confined to her bed and was attended by a physician, who told her that she had an "abscess about the womb," and at last recommended that she should go into a hospital. Accordingly, she did this, and remained there for a month, when it proved that she had not an abscess, though the medical men in attendance were at one time on the point of operating upon her. When I ask her from what she is suffering at the present time, she tells me that she has constant pain, and every two weeks a severe flooding, while dyspareunia is also a prominent symptom.

Now, gentlemen, here is a very clear history indeed of a certain set of symptoms, of which the patient comes to us to be relieved. In the first place (and this is by far the most important feature of the case), she is almost bleeding to death. A short time ago, as I had occasion to remark at a previous lecture, a gynecologist of the highest reputation was arguing with me that there should really be no difference in meaning between the terms metrorrhagia and menorrhagia. Now, who is willing to call the hemorrhage in this case menorrhagia, a term that is defined as a too free flow at the time of the menstrual period? The excessive discharge here is not at the menstrual periods; or, at least, is not confined to them. What woman ever really menstruates every two weeks? Yet this patient has a uterine hemorrhage regularly at this interval.

There is not unfrequently a certain periodicity about such hemorrhages, as in the present instance, which is analogous to the periodical epistaxis from which some individuals suffer; and one writer has suggested that it should be called *metrostaxis*.

Metrorrhagia, then, is one of the symptoms of which the patient complains. Violent pain is another, and dyspareunia is a third. These are the most promi-

nent ones, and they are all due to some abnormal condition referable to the pelvic organs. There are plenty of other symptoms present in the case; but they are of minor importance, and we need not concern ourselves about them just now.

The examination *per vaginam* is a very striking one in this case; and, curiously enough, the condition which I detected on making it is exactly represented, as regards the size and shape of the uterus, by this manikin uterus which I show you. You see there an interstitial fibroid, as large as an egg, in the anterior portion of the uterus. No doubt you will remember that when I was speaking recently of the various causes of dyspareunia, I mentioned sensitive fibroid among them. I would not have you forget, however, that, as a general rule, fibroids are not at all tender. But there are occasional exceptions, of which this is one; and I will now explain to you why this is so. When I first inserted my finger into the vagina, I was not able to reach the os uteri at all, and did not succeed until I had introduced two fingers, by which means I was enabled to get further up. I then found that the cervix, which pointed backward, was so firmly fixed that it was altogether immovable; and the effort to draw it forward caused the patient excessive pain. Again, when I resorted to conjoined manipulation, the pressure upon the uterus occasioned her such agony that she almost jumped off of the table. I was quite at a loss how to account for this state of affairs until I had heard the history of the acute inflammatory attack which has been mentioned as having occurred a year ago, and then the whole thing was perfectly clear to my mind.

You remember that the patient told us that her medical attendant apprehended an abscess about the womb, and that when she went into the hospital the surgeons there thought seriously of opening the so-called abscess; perhaps they had become converts to the new doctrine, which now seems to be getting quite extensively circulated, viz., that whenever the presence of pus is detected in any part of the pelvis, you should endeavor to evacuate it. I feel very sure that if, with this design in view, you go probing around the pelvis in search of pus, you will be exceedingly apt to get yourself into such difficulties that you will regret very sincerely having ever adopted any such rule. I do not wish to be misunderstood on this point, however; for, of course, there are many cases in which it is not only justifiable, but imperatively necessary, to open pelvic abscesses; but in every instance we should be guided by the peculiar circumstances of the case.

Well, what occurred at the time of the acute attack a twelvemonth since? The patient undoubtedly suffered from pelvic cellulitis or peritonitis, or perhaps both. The attending physician was no doubt right in apprehending an abscess; but the affection did not progress to the third stage. Now the fibroid was undoubtedly the cause of the attack. At this time it had probably been growing for a considerable period, and at length its increasing weight gradually caused anteversion of the uterus, and gave rise to so much irritation in the pelvis that the above serious results followed. But why this bearing-down pain of which the patient complains? Because the system is offended by the malposition of the uterus. On account of this and the pressure of the fibroid, the organ is kept constantly in a state of marked congestion, the engorgement, of course, being increased at the menstrual periods; and hence the metrorrhagia which is so prominent a symptom of the case. As I have said, this is a fibroid of the interstitial variety. That from



which the last patient was suffering was undoubtedly of the same character originally. Being situated nearer the mucous than the serous lining of the uterus, it was gradually forced into the cavity of the latter by the contractile efforts of the organ, and finally was driven completely out of the cervix, when it became fibrous polypus.

In regard to treatment, I may remark, in the first place, that absolutely nothing should be done in the way of local measures. It would be utterly useless; and if the woman were the private patient of any one of you, the best result that could possibly follow from such a physical examination as has now been made would be for you to find that you know sufficiently about her case to keep your hands off of her, and let her alone entirely. If you should not have learned this from your examination, you would be a very dangerous medical attendant for her. As it is, I feel quite sure that one of the principal dangers to which she is exposed is from some of the various physicians whom she will be apt to consult because we are able to do so little for her. Perhaps you may ask, "Is anything to be done for a woman who is suffering as she is?" Yes, I would reply, a good deal in the way of general management, but that is absolutely all; for any local treatment whatever would be extremely hazardous in this case. Indeed, I would not care to repeat even such an examination as I have made, for fear of lighting up anew some inflammatory trouble in the pelvis. I would recommend that the patient should have complete rest in bed, not only at the menstrual periods, but at all other times when there seems to be a tendency to hemorrhage; while at the same time she should avoid warm drinks and everything else that has any effect in the way of inducing menstruation. She should also take the ordinary astringent remedies, such as tannic acid, the acetate of lead, and sulphuric acid; and it will be found, as a result of this treatment, that her system will be greatly recuperated by the controlling of the hemorrhage.

Furthermore, in order to repair the ravages made by the drain upon her strength, she should have a very nutritious diet and take certain tonics, though carefully avoiding iron and quinine. I am pretty sure that if I were to call upon those present to prescribe for this patient, twenty-five per cent. of you, at least, would order these two remedies. It is not very long since I had occasion to speak of this point before; but I deem it one of such great practical importance that I do not think any apology is necessary for alluding to it again. Acting upon the views which I now hold, and which are based strictly on experience, I should certainly say, give her quinine and iron, if it is desirable to increase the menstrual discharge, but not otherwise. It is true that she really needs both drugs for the building up of her system. But quinine has a distinct action upon the uterus, which entitles it to a place upon our list of parturifacients. Not that I believe that it originates uterine contraction *de novo*, and is, therefore, capable of bringing on abortion when administered to pregnant women, but I am quite sure that when the uterus has once commenced to contract, that action is materially increased by quinine. Then, on the other hand, iron is one of our best emmenagogues; and I have over and over again seen the most happy results from the exhibition of these two remedies in combination in cases of amenorrhœa. But there are plenty of other good tonics besides these; and so we are able to dispense with them. Finally, on account of the excessive pain which the patient suffers from intercourse, she should remain altogether *absque marito*.

## SUBPERITONEAL FIBROIDS.

The last patient who will engage our attention to-day is Mrs. Ann F., a native of Germany, and forty-four years of age. She has had eight children, but 10 miscarriages, and has been a widow for the last ten years. By a very few questions we shall be able to get from the patient all the history that it is requisite for us to obtain in the case. How long have you been complaining, Mrs. F.? Answer: "Five years." What was the first thing that you noticed? "Pain on the right side, pretty low down." Was it very severe? "Not very." Do you have it up to the present time? "Sometimes." Is there anything else that troubles you? "Cramps in the bowels occasionally." Anything else? "I have been growing larger all the time." Is this enlargement greater on one side than on the other? "Yes, on the right side." Do you have your monthly periods regularly? "Yes." You see, gentlemen, that the patient looks like a perfectly healthy person, though she has the appearance of a woman at about the eighth month of utero-gestation. The latter fact is due to the presence in the abdomen of a multilobar tumor twice as large as one's head. It is not solitary, however, for there is another one below it of the size of a coconut, and still others again beside that; and I find that they are all connected with the uterus. A vaginal examination shows that there is a very large mass rising from the anterior surface of the uterus, and connected with it are two or three smaller tumors, about the size of ducks' eggs, while the sound is found to pass seven and a half inches into the cavity of the uterus. Is there any doubt about the diagnosis in this case? Not the slightest. These tumors are almost like masses of ivory, there being no part of any of them where there is any suspicion of fluid. In such cases, however, there very often is, and then we have to resort to the aspirator as a means of diagnosis. But why might not these fibroids be a solid tumor of the ovary? In the first place, such tumors are exceedingly rare, and some specimens which may be seen in museums so labelled are in reality only uterine tumors, the ovary having altogether disappeared on account of the pressure exerted upon it. But there is such a thing, notwithstanding, and I have seen one case of it myself—the tumor weighing some ten or twelve pounds. Secondly, because the sound passes seven and a half inches into the cavity of the uterus; while if it were an ovarian tumor, the cavity would probably measure only two and a half or three inches. Then, another collateral proof can be obtained by rocking the uterus backward and forward, by means of the sound, when it is found that the whole mass moves with it. This is not a conclusive test, but, taken in connection with the other points, is of very considerable value as corroborative evidence.

Now what has been the history of this case? These tumors originally became developed in the parenchyma of the uterus, near its peritoneal surface, and were no doubt, at an early period, extruded and forced up under the peritoneum. They are unattended with hemorrhage, because they are neither submucous nor interstitial in character. By a strange coincidence I have been enabled to show you to-day all three of the varieties of fibroid tumor: the submucous (which in the case that you saw had become a fibrous polypus), the interstitial, and now the subserous or subperitoneal.

The prognosis in this particular case is altogether most favorable, unless the patient should happen to fall into the hands of some one who would be rash

enough to attempt to remove the fibroids by operation. If this were done here, the chances are all that the uterus would have to come out also, and that the patient would almost certainly die within twenty-four or forty-eight hours; so that, under the present circumstances, I should consider such a procedure as positively criminal. But perhaps you may ask me if I would let this woman die rather than undertake such an operation. Certainly not. If her life were in danger, and I thought that by so doing I could give her a better chance of surviving, I would extirpate both the uterus and ovaries. But there is no such danger here, nor is there likely to be.

If the case is not interfered with in this way, I do not see why our patient should not live to an advanced age. She has no menorrhagia or metrorrhagia, and is, no doubt, quite as healthy as you or I. It is true that she has a somewhat uncomfortable weight to carry around upon her person; but an important thing to remember in connection with this case is that the menopause will probably soon occur. Have you ever reflected upon the fact that these tumors receive their nourishment through the uterus alone, sustaining, in this respect, the same relation to it that the mistletoe does to the oak? After the menopause, the uterus will become a very insignificant organ, shrinking so much that its cavity, instead of measuring seven and a half inches, will be only two and a half inches, or even less, in depth. These tumors necessarily, therefore, will also become more or less shrivelled, and it is altogether probable that some of them may undergo calcareous degeneration.

If, before the change of life occurs, they should grow very rapidly, and give rise to trouble which does not now exist, it might possibly be necessary to operate; but such a turn of affairs is exceedingly unlikely to take place. Occasionally, such growths become so large that it is absolutely necessary to remove them. Some time ago a poor woman came under my care who was suffering from a fibroid which weighed no less than fifty pounds. She was extremely anxious to have the tumor removed, but I acquainted her with the extreme danger that would attend the operation, and strongly urged her not to have anything done to it. At the end of a year she came back again, and the tumor had now increased to so great an extent that I admitted the patient to my service at the Woman's Hospital. On a consultation with my colleagues there, I found that they were all in favor of the operation, and, under the circumstances (especially as the woman was more desirous than ever to have it done), I was perfectly willing to undertake it. The tumor was excised quite readily; but in about forty-eight hours afterward, as is not unfrequently the case when the uterus is removed, the patient died. I would have you understand, therefore, that I do not hesitate in the slightest to operate in any case in which I think the patient's chances would be better under the knife than if she were let alone.

The medical man who has been attending the case tells me that in his opinion the fibroids have not increased very much in size during the past year. If the patient were younger, I certainly would not be willing to talk so confidently in regard to the case; but the menopause cannot now be far distant, and when that occurs, there will be little danger of any further trouble. Not that the fibrous masses will disappear as a result of that. They will still remain, but they must necessarily become greatly diminished in size. The only indication for treatment at present, then, is to keep the patient's general system in the best possible condition; and here is a case in which iron

and quinine can, no doubt, be given with great benefit. There is no hemorrhage now, nor are these remedies at all likely to give rise to any. A person whose bowels are in a healthy condition can drink beef-ten with impunity, but if there is diarrhoea present, it would be greatly aggravated by it; and the action of the quinine and iron upon the uterus is somewhat analogous. In conclusion, we find that the patient herself is, very sensibly, opposed to having any operation performed.

## THE TRANSFUSION OF BLOOD AND THE INTRAVENOUS INJECTION OF MILK.

A LECTURE DELIVERED BEFORE THE MEDICAL CLASS OF JEFFERSON MEDICAL COLLEGE.

By JOHN H. BRINTON, M.D.,

LECTURER ON OPERATIVE SURGERY IN JEFFERSON MEDICAL SCHOOL, PHILADELPHIA.

(Reported for THE MEDICAL RECORD.)

### THE TRANSFUSION OF BLOOD.

I wish first to call your attention to-day to an operation which some of you will no doubt be occasionally called upon to perform, and which has long attracted and still continues to attract the attention of the profession. I propose to tell you how and when to perform this operation, and to show you the implements necessary for its performance.

There are, as you all know, many conditions in which men and women lose so much blood as to become exsanguine, and be in danger of dying from its loss. When in this condition the only means at my power which the surgeon has of putting the vital fluid back into the system of his patient is by its transfusion from the veins of a healthy person.

In my estimation, the reason why the operation has always been so unsuccessful has been because it has invariably been performed too late. It should be done early, and before the patient is in a moribund condition.

In what cases should it be done? you will perhaps inquire. The diseases and states of the system in which the operation is demanded are many in number. Among these may be mentioned anæmia and chlorosis, gastric ulcer, post-partum hemorrhage, typhoid fever, puerperal fever—any disease, in fact, in which there is no organic circulatory lesion, but simply a mechanical loss of blood.

How is the operation to be performed? The blood must be drawn from the veins of some one who volunteers to provide it, and then, after due preparation, it must be injected into the veins of the sick person. When we think of the physical and chemical characters of the blood, we see at once how careful this preparation must be. If clots form in the injected blood there is great danger of embolism. The admittance of air into the veins is equally dangerous. I remember one case in my practice when death was instantaneous from the admittance of air. I intend to show you how to avoid the formation of clots and how to keep out the air.

The operation of transfusion is one in which an assistant is absolutely necessary. This assistant must be adroit, must be well acquainted with the phenomena of coagulation, and must attend altogether to drawing the blood from the person offering himself for that purpose and to the preparation of the blood thus drawn for the use of the surgeon.

Suppose, then, that I am called to perform transfu-



sion in a case of intestinal or gastric ulcer, where a large amount of blood has been lost. I take with me an assistant whom I can thoroughly trust. He attends to the donor of the blood and I to the patient.

First, then, as to the withdrawal of blood from the donor. The drawing of blood is one of the rarest of operations nowadays. In old times it was very common. Blood is usually taken from the left arm, as the right arm is used more than the left. The vein from which the blood is taken is either the median cephalic or basilic. As a rule the median cephalic is chosen. My rule is to bleed wherever a large vein can be found, no matter what vein that one may be. Before opening the vein I take a fillet and tie it around the arm just above the point of incision. I give a stick to the donor to hold in his hand and tell him to keep his fingers in continual motion, opening and shutting them upon the stick. This brings all the muscles of the forearm into play and so causes an increased flow of blood to the parts.

Do any of you know the origin of the red and white barber's pole? It is nothing but the bleeder's stick. In old times barbers attended to many points of treatment which nowadays come within the sphere of the surgeon. Among other things they were in the habit of bleeding, cupping, etc., and so the bleeders' red and white pole has come down to us as a symbol of the "tonsorial art," as its professors are pleased to call it.

In opening a vein I generally use a lancet, or rather my assistant uses one. All the blood which is the result of the bleeding must be received in a proper vessel. A great many vessels have been designed for this purpose, but I think that the simplest implements are always the best. I know that most hospitals are provided with a most complicated vehicle for the reception of the blood and the maintenance of its temperature, but I have devised a very simple vessel for use in my private practice. This is a common tin pan with an opening above, *i. e.*, a spout, and a vent below. On one side it has a little slide in which an ordinary thermometer is placed. Inside of the pan are two closed funnel-shaped vessels fitting into each other and provided with lips. The pan is filled with water at 116° F. From repeated experiments made I know that any blood drawn into the inside funnel-shaped vessel in this pan containing water at 116° F. will be kept at a temperature of 98°. Before using any part of the apparatus, however, I soak it all in water raised to 116° F. The spout and vent are very useful to me, for if the temperature is too high I can draw out some of the hot water by means of the vent and pour in some cold water through the spout. Beside the assistant, who draws and whips the blood, another assistant is always necessary to keep an eye on the thermometer in the pan and see that the mercury is kept steadily at 116° F. As common thermometers vary, the one used should be tried before the time of operation.

What kind of an opening is to be made in the vein of the patient who is to donate the blood? A good, large, oblique opening should be made so that the blood may flow rapidly. As some five or six ounces of blood, at least, must be drawn, we do not want the donor to faint, and so we make him sit down while the blood is flowing and administer restoratives at the first sign of syncope.

We will suppose, then, that some six ounces of blood have been drawn by the assistant. The fibrin must be removed from this blood. How is this to be done? The best thing for the purpose of whipping the fibrin out of the blood is a well-cleaned and neatly tied up

bunch of broom. Some physicians use regular egg-beaters for this purpose, but as several beaters are necessary I think the broom much more handy. All the while that the blood is being drawn the assistant keeps stirring it. When he raises one bunch of broom out of the vessel and finds it covered with strings of fibrin he throws it aside and takes another. The broom I use is carefully boiled and dried beforehand.

When enough blood has been drawn all that is necessary to do for the donor is to lay a plug of lint over the vein, pass several turns of a roller about the arm, administer a little brandy and water, and put him to bed.

But the blood which has been thoroughly beaten up still contains air in it. To get rid of this air it is necessary to strain the blood through a fine damask napkin. Here is where the outer funnel-shaped vessel is of value. A damask napkin is stretched over its brim and the blood from the other vessel strained through it.

The blood thus whipped and strained has lost its bright color; is dark in appearance, but still perfectly fluid. All the work thus far has been done by assistants. In the meanwhile I have been opening a vein in the recipient's arm and putting in a tube. There is no difficulty in finding a vein in the living subject except when the patient is unusually bloodless. I have a tube for injecting blood given me by O'Connell, of Dublin. This tube has its eye on the top instead of at the end. This is very useful in some cases, but I generally employ a canula attached by rubber tubing to a syringe. This syringe, which I show you, was chosen by me from a lot of Viennese syringes, and is a most reliable implement. It holds just four ounces. Before using it the syringe must, of course, be dipped in water at a temperature of 116° F. so that it may keep the blood continued in it at 98° F.

After inserting the tube into the vein I am accustomed to tie it in position. This is done by passing a thread beneath the vein. Before putting the tube into the vein care must be had to see that the two currents of blood touch each other exactly and that no bubble of air intervenes. After the tube has been tied in the vein pressure may be slowly instituted on the handle of the syringe and the blood gradually forced into the circulation. During this procedure the patient's face must be carefully watched and the opposite pulse held by the trained assistant. The blood should always be thrown in very slowly. The funnel-shaped pan containing the blood ought to be properly graduated so that we may know exactly how much blood we are using. After the blood has been injected the ligature round the vein must be cut and the tube withdrawn. A plug of lint should then be placed over the wound and gentle compression instituted.

#### THE INTRAVENOUS INJECTION OF MILK.

In consequence of the great percentage of deaths in general practice from the effects of the transfusion of blood a new operation has of late years been proposed—that of the intravenous injection of milk. Thus far only about twelve cases, where milk was injected into the veins, have been put on record: of these three were performed by Dr. Edward M. Hodder, of Montreal; two by Dr. Joseph W. Howe, of New York; three by Dr. T. Gaillard Thomas, of New York, and four by Dr. Charles T. Hunter, of this city.

The advantages claimed for milk which show it to be a fluid more fit for intravenous injection than blood are that there is no danger of coagulation, and none of

the passage of air. Moreover, milk is more allied to chyle, the material of which nature makes blood, than any other fluid with which we are acquainted. We all know that chyle from the *receptaculum chyli* empties directly into the left subclavian vein after passing through the thoracic duct. This chyle, upon its entrance into the blood, is a whitish, oily, milky-looking fluid. Chyle is claimed by Dr. T. Gaillard Thomas (*The Intravenous Injection of Milk as a Substitute for the Transfusion of Blood*. Illustrated by seven operations. By Dr. T. G. Thomas. Reprinted from the *New York Medical Journal*, May, 1878. D. Appleton & Co., N. Y.), to be not very unlike milk in its composition. "Chyle," says he, "is fat in emulsion in a serous fluid. Milk is fat molecularly divided and suspended in water with casein and sugar." The objections which have been raised to the use of milk are that "the casein will cause obstructions in the small arteries; and that the emunctories, in endeavoring to eliminate it, will be overwhelmed by congestion." These objections Dr. Thomas answers by showing how nearly similar in their constitution milk and chyle are.

The kind of milk which is generally used is the milk of the cow, although, in a very celebrated case of intravenous injection of milk which occurred recently in this city, the milk injected was that of a goat, which was brought into the pantry of the house where the patient was lying, and milked there. In one of Dr. Joseph W. Howe's cases also goat's milk was used. The results thus obtained from the intravenous injection of milk have been moderately good, much better certainly than those obtained in surgical practice thus far by the transfusion of blood. Two of Dr. Hodder's, one of Dr. Howe's, two of Dr. Thomas's, and one of Dr. Hunter's cases were followed by very marked improvement. That is to say that out of the eleven cases in all already published, six have been successful, *i.e.*, have been followed by marked improvement. Indeed, the fact seems to be that, had the injection only been made earlier in those cases where bad results followed, its effects might have been most excellent. In one of Dr. Hunter's cases—one of hemorrhage from the bowels as a result of typhoid fever—the patient rallied most wonderfully after each operation, and was only carried off at last by a most copious and draining hemorrhage. In one of Dr. Howe's cases the milk had been carried from such a distance as to be slightly decomposed before injection; hence the fatal result. According to Dr. Thomas, Dr. Eugene Dupuy, of New York, has shown that the intravenous injection of decomposed milk into dogs is uniformly fatal; whereas the same experiment, if practised with perfectly pure and fresh milk, is entirely innocuous. In the other fatal case of Dr. Hunter's—one of Addison's disease—the operation was only attempted as *un dernier resort*.

Dr. Thomas sums up the results of his operations as follows:

1. That the injection of milk in place of blood is perfectly feasible and safe.
2. That none but milk removed from a healthy cow within a few minutes of the time of injection should be used.
3. That the intravenous injection of milk is infinitely easier than the transfusion of blood.
4. That the injection of milk, like the transfusion of blood, is commonly followed by a chill, and a rapid and marked rise of temperature.
5. That not more than eight ounces should be injected at one operation.
6. That lacteal injections should not be limited to

cases prostrated by hemorrhage, but should be employed in disorders which greatly deprecate the blood, such as Asiatic cholera, pernicious anemia, typhoid fever, etc., and as a substitute for diseased blood in certain affections which immediately call for the free use of the lancet—such as puerperal convulsions, etc.

In performing the operation for the intravenous injection of milk certain simple forms of apparatus are necessary. Dr. Thomas uses a glass funnel, having attached to it a piece of India-rubber tubing, with a very small canula at its extremity. The injections were always made into either the median basilic or cephalic vein of the left arm. Dr. Charles T. Hunter, who has performed the operation of transfusion several times, and has recently had the three cases of milk injection to which reference has already been made, uses a form of apparatus slightly different from that of Dr. Thomas. Dr. Hunter, instead of a glass funnel, employs one of brass; his canula is only from one-twelfth to one-eighteenth of an inch in diameter, being smaller in calibre than the cephalic vein itself, and is connected with the funnel by means of a piece of rubber tubing two feet in length and about one-sixth of an inch in diameter. His canula is silver-plated, provided with a carefully constructed stop-cock, and ends in a very fine point. Dr. Hunter does not pierce the vein through intervening skin and tissues, but makes an incision about one-half an inch long over the course of the vein, dissects the vein away from the surrounding tissues, raises it on a grooved director, and then plunges the canula directly into it. He does not consider it necessary to tie the canula in position, but thinks that it is amply constricted by the wall of the vein.

He always strains the milk before injection. The question has frequently been raised as to whether the effects following the intravenous injection of milk are not due entirely to the presence of a stimulating liquid in the blood and its action on the walls of the heart; whether it can, therefore, be said to do anything more than merely tide the system over a state of marked depression—whether, in fact, the result obtained is any other than that produced in certain cases of epidemic Asiatic cholera by the injection of simple salt and water into the circulating fluid of the body. This is a point which has not yet been definitely settled.

With regard to the evident obstruction to respiration immediately following the injection in many instances, and the presence of marked albuminuria, all that I can say to you is that the pulmonary obstruction is said by some to be produced by the formation of casein in the arteries of the lungs, and that the albuminuria which follows the transfusion of blood as well as the intravenous injection of milk, may be produced by the simple ingestion of unusually large quantities of the white of egg.

#### THE INTRAVENOUS INJECTION OF MILK LIKELY TO SUPERSEDE THE TRANSFUSION OF BLOOD.

As far as my own practice is concerned, I think that, in future, I shall try the intravenous injection of milk in preference to the transfusion of blood. I have transfused a great many patients of late years, both in private and hospital practice, and my results have been very far from reassuring. I think the proposed intravenous injection of milk offers us much better results, judging from the cases published by Dr. Thomas and those in this city. The main obstacle to complete cure, as I have already said, thus far has been the very late period of the disease at which the injection has been attempted. Though the exact



*rationale* of the action of milk, thus introduced, upon the system has not been satisfactorily shown, I think this new operation will, in a few years, have entirely superseded the transfusion of blood, which latter operation is even now being rejected as at once dangerous and unavailing in many parts of the country, and by many surgeons of authority and deserved eminence in their profession.

## Original Communications.

### LIGATION OF THE LINGUAL ARTERIES BETWEEN THE EXTERNAL CAROTID AND POSTERIOR BORDER OF THE HYOGLOSSUS—EXTIRPATION OF THE TONGUE FOR EPITHELIOMA.

By JOSEPH W. HOWE, M.D.,

CLINICAL PROF. OF SURGERY, MED. DEPT. UNIV. OF NEW YORK.

JOHN DEAN, æt. 70, occupation, harness-maker, was admitted to St. Francis' Hospital, September 17th, 1878, suffering from an epithelioma of the tongue. The disease commenced eight months previous to admission as a small fissure or ulcer on the left side of the tongue near the lip. It spread rapidly in depth and in circumference, and was accompanied by pain and difficulty in mastication and deglutition. An examination showed that a large, deep, and irregularly excavated ulcer occupied the left side of the tongue, extending from its anterior extremity to within three-quarters of an inch of the insertion of the palato-glossus. The organ was swollen and very painful to the touch. Large quantities of saliva mixed with pus flowed constantly from the mouth. The odor was extremely fetid, and very noticeable some distance from the patient.

The mouth was thoroughly cleansed with a strong solution of carbolic acid, and a nutritious liquid diet ordered.

A few days after admission it was seen that the disease was spreading rapidly, and had already involved the right side of the tongue, near the floor of the mouth, and undermined the greater portion of the left. There was every indication that the lingual artery and its branches would soon be involved in the destructive process, and that death would soon ensue from hemorrhage.

To prevent this accident it was decided to ligate the lingual arteries near their origin between the external carotid artery and the posterior border of the hyo-glossus muscle, in the manner proposed and successfully acted upon by Dr. George F. Shady, of this city. (MEDICAL RECORD, Vol. XIV., page 204.)

I performed the operation on September 30th, assisted by Drs. Shady, Ripley, and Stimson. An incision was first made on the left side of the neck parallel with the hyoid bone, extending from its anterior extremity to about an inch beyond the apex of the greater cornu. The artery was found just above and posterior to this point; a catgut ligature was applied and cut off close to the artery. The wound was then closed in the usual manner.

A similar incision was made on the right side and carried down to the apex of the cornu. Here the artery was given off from the carotid, about the eighth of an inch higher than on the opposite side, and

more dissection was necessary to expose the vessel. A catgut ligature was applied, and the wound closed. As the condition of the patient was good, it was decided to extend the operation and remove the tongue through the mouth. Accordingly, the organ was firmly held by means of a vulsellum, drawn out as far as possible, and its attachments in front and below cut with a blunt-pointed scissors.

This allowed the tongue to be drawn still further out of the mouth, and its root to be more readily reached. A stout ligature was then passed through the base of the tongue near the median line, and held by an assistant. The palato-glossi were then divided, and the tongue cut through at its base, and removed.

A piece of diseased tissue attached to the gum, at the symphysis, and to the floor of the mouth, was also removed at the same time.

The operation was a *bloodless one* up to the time the anterior pillars of the fauces were cut through; then slight hemorrhage occurred, which was readily controlled with a piece of ice.

On the second day after the operation, the patient's temperature ran up to 103°. On the 4th, it ran down to 101°, and he was able to get out of bed and help himself to various articles in the room. His food, which was administered by means of a catheter inserted in the œsophagus, was retained, and he was comfortably free from pain. On Sunday, the 6th day after the operation, he remained up and attended to all his wants. The wounds in the neck were healing rapidly, and there was every prospect that he would make a good recovery. But on the morning of the 7th, he aroused the attendants by a loud cry. The latter ran to his bedside, and found that a large stream of blood was spurting from the posterior corner of the wound, on the right side of the neck. He was unable to control it, and death resulted in three or four minutes from the hemorrhage.

A post-mortem examination showed that the lingual artery on the right side had sloughed from its point of origin, at the external carotid to a couple of lines beyond the point, where the ligature was attached. On the left side the ligature was intact, and a firm clot filled the lingual artery on both sides of the ligature, and extended about the eighth of an inch into the external carotid artery.

*Remarks.*—There was no disease in the neighborhood of the ligated artery, which would account for the secondary hemorrhage. The artery was ligated at a sufficient distance from the carotid to insure the formation of a clot. There was no calcification or atheromatous degeneration of the vessels on that side of the neck. In my opinion, the secondary hemorrhage was due, for the most part, to the extra amount of dissection, which was made in exposing the artery on that side, and which probably cut off the blood-supply to the walls of the blood-vessel. In a younger person, the destruction of cellular tissue around the artery to the same amount would have been unattended by evil consequences; but in an old man, whose nutrition was much below par, little was needed to cause necrosis of tissue anywhere.

As before remarked, the operation was a *bloodless one*. The tongue was cut away with as much ease, and with as little hemorrhage as if removed from a cadaver.

There was no shock following the operation, and every point in connection with the case showed that the ligation of the arteries near their origin was a justifiable, preparatory step towards extirpation of the diseased organ.

## PECULIAR AND UNUSUAL SYMPTOMS OF HAY-FEVER.

By GEORGE M. BEARD, M.D.,

NEW YORK.

I HAVE been much interested in the discussion between Dr. Edson and Dr. Wey on "Paralysis of the Diaphragm as Hay-fever." It seems to me that Dr. Wey, who is not only one of the best physicians in the country, but, as I have reason to know from various correspondence and conversation with him on the subject, has given much thought and attention to hay-fever, is probably quite right in his suggestion that the case reported by Dr. Edson represents a peculiar and unusual symptom of that disease.

Those who thoroughly understand the nerve theory of hay-fever, as it has been presented not only in my own writings, but, still more recently, in Dr. Barbour's Report to the United States Hay-fever Association for last year, are prepared for the discovery of almost any conceivable manifestation of this wonderful malady; new symptoms or phases of symptoms are springing into view constantly.

When we once fully grasp the fact clearly and accurately stated by Dr. Barbour—that hay-fever is a *subjective*, not an objective disorder, coming from *within*, not from without, the numerous and nameless exciting causes being only of secondary or tertiary importance—we cease to be surprised at any new or previously unnoticed trick, or device, or form that it may exhibit. In the family of neuroses, to which hay fever belongs, nothing can surprise, nothing is anomalous, nothing is inconsistent; with the evolution of the modern constitution, new shapes and type of symptoms are every year coming under observation.

Although I have now seen, or studied, in more or less detail, over five hundred cases of hay-fever in its early, middle, later, and winter forms, and therefore might well be supposed to have become familiar with every possible phase and type of the malady, yet every season novel, unexpected, and unimagined caprices in its history and symptoms are brought to my attention.

Dr. Edson, first of all, mistakes in assuming that in hay-fever such symptoms as coryza, persistent sneezing, sensitiveness of the nasal mucous membrane, cough, asthma, photophobia are necessarily present; some of these symptoms, or all of them, are usually found in hay-fever of the regular type, but no one is essential to the disease. Just as in writers' cramp—a disease that I am now specially investigating—there are many cases that do not have the characteristic cramp, just as there may be sick headache without the usual nausea and vomiting, just as we may have locomotor ataxy without the ataxic gait, just as there may be hysteria without hysterical convulsions, just so there may be genuine hay-fever without any of the familiar symptoms in the nasal and respiratory tract.

Let me briefly present a few of the apparent anomalies of hay-fever that can readily be brought to my remembrance.

I saw this summer, with Dr. Sterling, a case where hay-fever was apparently confined to the eyes. The attack of conjunctivitis came on quite suddenly in *one* eye, on a warm day, while in a boat on inland waters. Three successive summers he has been attacked in the same way, and, I believe, under similar circumstances. He is very much worse at night; the usual treatment employed by ophthalmologists did little good. Under local and central galvanization

he was rapidly relieved. At no time, so far as I could learn, were there any other symptoms that suggested hay-fever.

In my treatise on Hay-fever there is recorded a case of a man who, during the regular season for the later form, or "autumnal catarrh," has an eczematous eruption on the face. For many years this eruption has appeared between the 20th and 25th of August, and has disappeared with cool weather. When temporarily suppressed by treatment, a severe attack of asthma at once takes its place. He has no nasal symptoms.

This very season I have seen a hay-fever case in whom the usual symptoms are always preceded by the appearance of a small patch of eczema on the neck.

I have also seen a case where spasm of the oesophagus was one of the symptoms, making it difficult to swallow anything but liquids. This year a case was for a time under my observation where attacks of aphonia appeared now and then during the course of the disease.

This season I have seen a gentleman of intelligence whose attacks are preceded, for two or three days, by profound mental depression, during which immense quantities of alcohol can be taken without any apparent effect; at other times he can drink but little.

Dr. Edson is right in asserting that hay-fever is less common South than North, and yet the disease *does exist all through the Gulf States*. I have seen or have had reports of scores of cases in the South—some of them members of our own profession—and these Southern cases are sometimes very severe. Like all the nerve maladies of the family to which it belongs, hay-fever is far most common in the North, and regularly decreases in frequency as we go South; like these diseases, also a not-to-be-overlooked minority of cases are indigenous in all the Southern States.

In regard to the case cited by Dr. Wey, there can be no question that it was genuine hay-fever, the difficulty of breathing being there associated with more familiar symptoms. It will be interesting to watch the case reported by Dr. Edson in order to see whether in subsequent years he has similar attacks on exposure to the heat, and also whether other symptoms do not in time appear. It would seem furthermore that there was a spasmodic rather than a paralytic condition, and the results of the treatment by chloral is, so far forth, in harmony with this view. For several years I have been accustomed to recommend chloral, either alone or in combination with the bromides, for the various symptoms of hay-fever.

In closing, I may express satisfaction that physicians are beginning to devote to hay-fever that scientific attention which, as one of the most interesting and instructive nervous diseases of modern times, it surely deserves.

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CONSERVATIVE SURGERY.—Dr. Borlée claims that a simple dressing of charpie and compresses wet with spirits of camphor, in connection with thorough drainage, deserves the preference over Lister's method. With this dressing erysipelas scarcely ever occurred, the suppuration, even when the wounds were extensive, was slight, and the secretion did not become offensive. He illustrates the method by the histories of eight cases, comprising one case of "loose cartilage" in the knee-joint, removed by excision, with perfect recovery, two cases of severe, complicated fracture of the leg, an amputation and an excirculation of the upper extremity, and extirpation of tumors.—*Centralblatt f. Chirurgie*.



## Progress of Medical Science.

**SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.**—Mr. Adams, F.R.C.S., exhibited to the British Medical Association the man upon whom he first performed the operation of subcutaneous division of the thigh-bone in 1869, when the patient was twenty-four years of age, at the great Northern Hospital. As a result of the operation, bony ankylosis took place, and the limb soon became strong and useful. He has since remained well and able to walk several miles without fatigue, and to carry weights. The progress of this operation has been from time to time recorded in these columns, but Dr. Adams has collected and analyzed all the cases reported. The total number of cases operated upon amounted to thirty-three, and Mr. Adams had not heard of any unfavorable cases beyond those recorded in the earlier paper, of which one was fatal from pyæmia, and in two others deep suppuration contributed to a fatal termination after many months. As a general rule, the wounds had healed like tenotomy wounds, without any suppuration or local disturbance. In some cases a little suppuration at the wound had occurred, but only in a few cases had deep suppuration taken place; much of the success depending upon a judicious selection of cases, and great attention to the minute details of the operation.—*The British Medical Journal*, August 24, 1878.

**REMOVAL OF THE ASTRAGALUS IN THE ADULT IN A CASE OF CONGENITAL TALIPES.**—Mr. Lund read before the British Medical Association a report of the following case: The patient, a factory operative, tall and well grown, now twenty-nine years of age, had been the subject of talipes equino-varus on the right side from birth. No systematic treatment had been employed, and, as was shown by a cast of the limb, the foot had been inverted and crumpled up to a considerable extent. Yet he was able to walk about and attend to his work until about a year since, when an ulcer following a large corn on the outer border of the foot on which he rested had completely disabled him. Mr. Lund described how, when he had determined to try to correct the deformity by removal of the astragalus, he proceeded on the same plan as that described by him at the Birmingham meeting of the Association in 1872, and made one long, straight incision on the dorsal surface of the foot between the outermost tendon of the extensor longus digitorum and the tendon of the peroneus tertius. But in this instance it was found that instead of coming down upon the projecting head of the astragalus covered by the dorsal ligaments, it was the upper surface of the bone—that which had been placed between the malleoli—which then presented itself; and this was caused by the still persistent infantile form of the astragalus, as described by Mr. William Adams in his work on *Club-foot*, and the fact that there had been partial ankylosis of the astragalus and scaphoid. The latter bone had been so drawn upward, backward, and inward by muscular action, as to dislocate the astragalus from the intermalleolar space and leave it fixed on the dorsal aspect of the foot. The astragalus was extracted by the curved hook previously described; and the present state of the foot, as seen in a cast taken fourteen weeks afterward, showed that a very hopeful result would follow the operation.—*The British Medical Journal*, August 24, 1878.

**REMOVAL OF THE ASTRAGALUS, SCAPHOID, AND CUBOID BONES.**—Mr. West presented at the meeting

of the British Medical Association a paper on this subject, relating a case in which he performed this operation. The case was one of aggravated talipes equino-varus in a woman aged 23, on whom Mr. West operated by the plan suggested by Mr. Richard Davy, of the Westminster Hospital. Models of the limb taken before and subsequently to the operation, and also the tarsal bones, the cuboid, astragalus, and scaphoid, removed at the time of the operation (May 19, 1878), were shown. The result, as seen ten weeks after the operation, was eminently successful. Mr. West considered that, although tenotomy was the most suitable operation, in infants and young children, in adults, or in cases where tenotomy had been tried and failed, resection of a wedge-shaped portion of the tarsal bones was an excellent operation; and that in future no case of talipes, whatever might be the age of the patient or the severity of the deformity, need be looked upon as hopeless. The use of Esmarch's bandage, and the antiseptic method of subsequent treatment, in operative procedures of this kind, deprived them of the risks which such an interference with the tarsus and its numerous articulations would otherwise involve.—*The British Medical Journal*, August 24, 1878.

**ON THE TREATMENT OF SPINAL ABSCESS.**—In a recent clinical lecture on this subject, Dr. Samuel W. Gross stated that he has altogether discarded the theory that the entrance of air into the sac is the cause of the putrid changes in the pus and the fatal systemic disturbance, which so often follow the opening of spinal abscess. In accordance with this change in theory, he has also discarded the operations by valvular incision and by free incision with antiseptic precautions, both of which had uniformly been followed by bad results in his practice. He believes that the evil symptoms after operation must be ascribed to inflammation of the sac of the abscess, induced by the loss of support of its walls and the increased nutritive changes consequent on the increased blood-pressure. The sac of a spinal abscess being formed of a firm (pyogenic) membrane and the surrounding stretched and altered tissues, through which the pus has travelled in its efforts to reach the surface, its sides do not contract and fall together after evacuation. As a result of the tension of its vessels, due partly to the pressure of the accumulated pus, and partly to the infiltrated condition of its walls, its blood-supply before the evacuation is comparatively slight, and the formation of pus is a slow process. From the moment, however, that the circulation and nutrition of the cyst are disturbed by the withdrawal of its contents, from that moment the tension of the vessels is lost, and, as natural consequences, more blood is sent to the hitherto slightly vascular membrane, its surface becomes studded with minute granulations through the dilatation of the old capillaries and the development of new ones, and pyogenesis goes on at a greatly increased rate. So rapid indeed is the production of pus, that a day or two suffices for the abscess to attain dimensions which, in its closed state, were the work of months. After several evacuations, moreover, the pus becomes thin and somewhat putrid, and is streaked with blood from rupture of the softened capillaries.

In accord with this theory of inflammation of the sac as the cause of the consecutive fever after its evacuation, Dr. Gross holds that the essential elements of treatment are, first, to afford rest to the sac by supporting its walls, and, secondly, to tranquilize the system at large and control morbid action by the

free exhibition of anodynes. To fulfil the first indication, after a free incision, adhesive strips, about an inch in width, are applied over the empty sac in such a manner that each strip envelops one-half the preceding one, care being taken not to embrace the entire body or limb, as the case may be. An opening having been made in the dressing to admit of free drainage, a large, soft, moist sponge is confined over the parts by a couple of adhesive straps and a roller, and kept wet to promote its expansion. So long as the discharge is abundant the outer dressing will require a daily change, and during the first few days the adhesive strips will have to be changed every forty-eight hours. As soon as the granulating process has sufficiently advanced, as indicated by the marked diminution in the quantity and the alteration in the quality of the pus, the dressings may be discontinued. With a view to allay nervous and vascular excitement, and thereby more effectually secure rest to the parts and the system at large, opium is given in full doses for the first five or six days after the evacuation of the abscess. In conclusion, it should be stated that Prof. Gross does not claim originality for his theory, but merely advances it as the basis for a mode of treatment that has proved very successful in his practice.—*Medical News and Library*, July, 1878.

**TWO CASES OF DISEASE OF THE BLADDER RELIEVED BY SOMEWHAT NOVEL OPERATIVE METHODS OF TREATMENT.**—The first of these cases, which are reported by Dr. William Alexander, was one of villous tumor of the bladder, which had existed for eight years without being recognized, although the patient had been under medical treatment repeatedly during that period. In 1868 her urine became red, thick, and scanty, without any apparent cause, and continued so for several months. A year afterward the symptoms recurred, this time accompanied by considerable pain in the vesical region, which was greatest during micturition, but was constantly present. Soon after small masses came away, exactly similar to those removed at the subsequent operation. From that time until 1876 the symptoms persisted with more or less severity, the general health at times suffering severely. In 1876 she consulted Dr. Alexander, who diagnosed chronic cystitis, and subjected her for four months to various methods of general treatment, but without any lasting benefit. Finally he concluded to make a thorough examination, and on dilating the urethra and inserting his finger into the bladder, found the floor of that viscus covered with irregular growths of various heights. A few were as much as a quarter of an inch from base to apex, and one seemed to be nearly an inch in height. This large one had a rounded, bulbous apex; the apices of the others were thin and pointed. Small crystals could in several places be felt between the papillæ. A few days later the urethra was dilated with an anal speculum, and the largest growth removed by the écraseur. The tumor was cut through without any feeling of resistance, and in trying to get it out others were displaced from their place of growth by the movements of the finger. Acting on this hint, Dr. Alexander scraped off with his finger all the nodules within reach, and then washed out the bladder with a weak solution of perchloride of iron. During the operation the hemorrhage was not great, but the urine contained a good deal of blood for a week afterward. The patient scarcely suffered any constitutional disturbance. She had incontinence of urine for two days only, during which scraps of the tumor came away. The subse-

quent treatment consisted only in frequently washing out the bladder with weak solutions of carbolie or nitric acid or perchloride of iron. Four months after the operation the patient was able to resume her vocation as cook. In all, about two dozen small growths were removed and five or six were lost; microscopically they presented the appearances characteristic of villous growths. In consequence of the recurrence of the symptoms, the operation had to be repeated in October, 1877, and again in May of this year. The recovery after the last operation was more rapid and more perfect than on either of the previous occasions. The urine has continued clear ever since.

The second case was one of chronic cystitis, the result of stricture and enlarged prostate. As the stricture was of twenty years' standing and the canal of the urethra was hard, indurated, and tortuous at the junction of the spongy and membranous parts, it was treated by forcible dilatation with Holt's instrument. A large catheter was then passed, and the bladder was washed out, with much relief of the symptoms. Despite frequent washings, however, the catarrh continued, and as the passage of the instrument always caused severe pain and spasm, perineal section was finally resorted to. After the operation the patient felt much relieved, and for some time improved considerably in health and spirits, but died four months later of gradual emaciation and exhaustion. The autopsy revealed an enormously hypertrophied and deeply ulcerated bladder and advanced disease of the kidneys, the left one being reduced to a large cyst, the walls of which were formed by a thin layer of renal substance. After the last operation the bladder could be readily washed out through a perineal tube, the washings escaping by the urethra.—*The Lancet*, August 17th.

**DISADVANTAGES OF SALICYLIC ACID AS A MOUTH-WASH.**—Dr. Buch, of St. Petersburg, has found that even a very weak solution of salicylic acid is injurious to the teeth. After it has been used for some time, the teeth appear softer, and feel as if they were covered with some gritty substance. This is due to the acid combining with one or more of the constituents of the teeth, the surface of which becomes soft and granular. Dr. Buch believes that a salicylate of lime is formed, which adheres to the teeth, and is the cause of the peculiar sensation when they are rubbed together.—*Edinburgh Med. Journ.*

**A CASE OF RENAL ASTHMA.**—Dr. Fairfax reports the following case: a woman, who was at the time nursing a child about two months old, suffered for several days from severe pain in the back of the neck, which was aggravated by sudden movements of the head, but was not attended by fever or headache. She was suddenly seized during the night with an attack of dyspnea, and on the following morning the doctor found her sitting up in bed, with an anxious and livid countenance, and breathing like a person with a severe attack of asthma. On examination he discovered no signs of heart-disease, and found that the air had free access to both lungs, with the exception of the infra-scapular regions, where there was slight, fine crepitation. He noticed some cedema of the hands and face, however, and, on examining the urine, found that it contained albumen, casts, epithelium, and blood-globules; it was very scanty, and had a sp. gr. of only 1013. Concurrently with the establishment of free action of the kidneys and skin, which was effected in two or three days, the respiration became easy and natural, and the pain in the neck and the cedema diminished.—*Virginia Medical Monthly*, July.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE STUDY OF EPIDEMICS.

From various parts of the country reports come to us of the prevalence of fevers of low type and long continuance. In some localities a large proportion of the population is attacked, suggesting epidemic influences. That no special alarm is created in consequence of the comparatively widespread nature of the disease is perhaps due to the fact that as a rule the mortality is exceedingly small and that convalescence is rapid and satisfactory. Of course in searching for the supposed causes of such fevers we naturally think of defective drainage, impure drinking water, and of the other accessories with which these unsanitary conditions are conventionally associated. There is no doubt that in many instances in which such conditions are searched for they will be discovered and the usual pains will be taken to bolster up an argument in favor of some germ theory. There is nothing easier to prove on general principles than the relation of filth and other unsanitary surroundings to fevers and epidemics. The association of cause and effect appear to be very direct, and when a plausible doctrine is dovetailed with certain facts the conclusion seems almost irresistible. The danger at present, however, seems to be towards an extreme which may militate against an honest search after truth.

It is barely possible that, in spite of the general belief that bacteria are lurking everywhere, seeking whom they may devour, are dodging even under the knife of the surgeon, are spreading devastation everywhere—that they do not, after all, hold the balance of power between health and disease—in fact, that there may be other causes at work which we do not understand, and which may well repay investigation. This view of the subject will, we think, become more and more apparent as we attempt to investigate the laws of epidemics—as we strive to explain the reasons why, under apparently similar conditions, a disease is more virulent or more widespread in one

place than in another. Filth, bad drainage, and bad water are very constant factors of fevers, but that they are not invariably present is an equally acknowledged fact. What are called unsanitary conditions unquestionably invite epidemics; but, when the latter are once established, their progress is beyond any reasonable explanation based upon any germ theory, cell doctrine, or the like. This has been, in a measure, demonstrated in the spread of the Southern pestilence, and gains additional strength of proof in the unusual tendencies towards fevers over wide ranges of country in the North. Although the fevers in the North have not assumed the dignity of real epidemics, and have not commanded the attention of the Associated Press, they are sufficiently prevalent to militate against the doctrine of local causes and to invite renewed investigations, having the widest possible range of application. It is so tempting to fix a suitable fact to a plausible theory, that there is no wonder a cursory examination of supposed causes has been sufficient with the majority, and that the profession has been tempted to accept conclusions which are not always capable of being substantiated.

What, for instance, is more gratifying than the explanation that the healing of wounds after the antiseptic method is due to the slaughter of bacteria by the spray? If we were not so strongly committed to the theory, there would be something ridiculous in the method of its demonstration, and due weight would be given to the fact that large wounds, wounds complicating important parts, have healed by first intention before the spray-kettle was thought of, and still continue to heal when carbolic vapor is not used. The exceptions to the general rule are sufficiently numerous to command attention. The same might be said in regard to the germ theory and other hobbies connected with the causation of fevers, and the spread of epidemics. Localities which were scrupulously cared for have been the abodes of fever during the summer and early fall; places in which every sanitary precaution has been taken have been visited by epidemics, and the physicians, who have studied the conditions of causation, have been more than puzzled to account for them in accordance with present and generally received opinions. Then again, on the contrary, insalubrious localities have escaped; and ill-ventilation, squalor, bad drainage, and indifferent water have failed to invite disease. These are certainly disheartening facts, but it seems to us that the time has come when they should be looked at fairly and with the single desire of interpreting them in a thoroughly unprejudiced manner. The material for new investigations is at hand, not only in the South, but throughout the North; and the time seems to have arrived when they should be made. Naturally we may look for the initiative in this matter in the work of the present Yellow Fever Commission. If the study of the facts

is made from a thoroughly independent standpoint, we shall have made a start in the right direction, a departure which may be as promising in its results as any hitherto made, and may eventually lead to the reconciliation of apparently conflicting views. In order to fulfil their conditions, however, no man with a hobby should be trusted on any commission of investigation. It is not to such men that we must look for practical facts, or for impartial statements.

#### THE DETERMINATION OF SEX IN UTERO.

In a recent number of the *Boston Medical and Surgical Journal* appears an article by Dr. J. W. Swift, bearing upon the question of the determination of sex before birth. He states that his attention was first directed to the inquiry by Dr. Heitzmann, of this city, who promulgated the following ingenious theory:

The ovum represents the female element, the spermatozoa the male. If the ovum becomes impregnated by a few spermatozoa, the female element will be in excess, and the result a female. If, on the other hand, a good many spermatozoa impregnate the ovum, the male element will preponderate, and a male will be the result.

Now, it is argued, if the ovum is high up—that is, in the ovary, or at the fimbriated extremity of the Fallopian tube—probably only a few spermatozoa will come in contact with it; but if the ovum is low down, then the spermatozoa will be in excess.

If menstruation and ovulation are dependent one on the other, then the situation of the ovum may be determined by the menstrual period. During the interval between the periods the ovum is in the ovary; just before the flow begins, the ovum may be on the surface of the ovary, or in the fimbriated extremity of the Fallopian tube. As menstruation goes on the ovum descends, and the flow may entirely cease before the ovum is discharged. Then it is low down in the Fallopian tube, or even in the uterus itself.

If coition takes place during the interval between the periods, or just before menstruation begins, the ovum being high up, only a few spermatozoa reach it; but if copulation is just after menstruation, then the ovum is within reach of many spermatozoa.

Dr. Swift seems to have been much impressed with these assertions of Dr. Heitzmann, and tested the rule in twenty cases which came under his notice, and with surprisingly satisfactory results.

So far as the illustrations go the theory would seem to be proven, but even the writer of the article in question is not yet prepared to be positive on any of his points. There are too many circumstances to be taken into account before any conclusions can be reached. In the matter of reproduction the theory to be well founded must have an application equal in extent to the whole domain of comparative anatomy. As it is, however, the weight of testimony appears to be on the other side of the question. There are, in

fact, very many conditions to be fulfilled before the facts of experience can be explained even by the most plausible theory. The main difficulty would seem to be in drawing the line when the coitus is not performed according to the rule laid down between the male and female sex with a more than ordinary chance of straddling a so-called hermaphrodite. Then the ovum itself is sometimes quite perverse as to the time when it starts upon its journey, sometimes being far in advance of the menstrual flux and sometimes not leaving the neighborhood of the ovary until many days have elapsed. We know also that despite the times of coition some couples always have boys and others girls. In connection with this part of the subject it may be apropos to refer to one species which during one part of the year produces nothing but females and another part of the year nothing but males, and also that this change takes place without any new impregnation, as one coitus lasts for many generations. But, as we have before remarked, the theory is based upon some very novel and suggestive propositions, and deserves an investigation into the real significance of the facts which have been presented and their particular bearing upon the question at issue.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, October 8, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### LIGATION OF LINGUAL ARTERIES.

DR. J. W. HOWE exhibited a specimen of cancer of the tongue, which he removed by operation, having previously ligated both lingual arteries near their origin. (*Vide* page 347.)

#### CANCER OF RECTUM.

DR. PEABODY presented a specimen of cancer of rectum, with the following history:

Patient was a native of Ireland; 50 years of age; a porter by occupation. Was operated upon for carcinoma of the rectum, by Volckmann's method. Several drainage-tubes were introduced, and the wound dressed according to Lister's method. Operation was not done under spray. Subsequent dressings all were done under spray. Patient died of pyæmia on the third day. Microscope showed carcinoma to be of colloid variety. Heart during life was known to have very feeble action, but was not irregular. There were no murmurs.

At autopsy wound was found to be in excellent condition, though no union had taken place. Heart, with exception of apex of left ventricle was filled with soft, friable, dust-colored clots. Apex of left ventricle on the contrary contained several firm masses of fibrine, which were adherent to the walls. This part of left ventricle was about large enough to contain a chestnut, and formed a sort of secondary cavity by itself, projecting beyond surface of ventricle. Its walls were white, tough, and very uneven, and seemed to contain almost no muscular tissue. I thought it first



either a metastatic deposit of carcinoma, or possibly, a gummy tumor. Microscopic examination, however, decided against both hypotheses. Walls were found composed almost purely of firm, tough, fibrous tissue, with here and there a large, flat cell, and few bundles of muscular fibres. It became evident that I had to do with an aneurism of the heart, situated where aneurisms of the heart very commonly are, and not very far advanced. Beginning of process was most probably, as is usually the case, coincident endocarditis and myocarditis.

Second specimen was from same subject, and was microscopic section from pyramid of one kidney. It showed largest colony of micrococci that I have ever seen of ante-mortem formation. It was distinctly visible to the naked eye. Evidently, on microscopic examination, situated in capillary blood-vessels, whose walls are distended at intervals by its growth in such a way as to suggest the irregular outline of lymphatic vessel. Only other evidence of pyæmia was a few drops of pus in right elbow-joint.

#### CYST OF THE IRIS PRESENTED BY DR. H. KNAPP.

DR. H. KNAPP exhibited a cyst of the iris, and gave the following history:

The small specimen I beg to present, is a typical example of a *cyst of the iris*. Two weeks ago I removed it from a boy who had injured his left eye with a toy pistol, in July, 1874. When I saw him, forty-eight hours after the accident, I found a small wound in the upper part of the cornea, plugged with iris. The lens was uninjured, but with the ophthalmoscope I detected in the posterior part of the vitreous a shining piece of metal—a gun-cap—which had produced a considerable degree of retinal congestion, but scarcely any turbidity of the vitreous. I succeeded in extracting it with a hollow little hook, through an opening which I made in the equatorial region of the globe. The boy was in deep narcosis. Looking through a forehead mirror into the pupil, and keeping in sight both the position of the foreign body and the movements of the hook in the vitreous chamber, I succeeded in extracting the gun-cap. Then I united the wound in the sclerotic with two delicate sutures, removed all the iris that was engaged in the corneal wound, and applied a charpie-flannel bandage to both eyes.

The recovery was undisturbed, prompt, and complete. A white scar, seen with the ophthalmoscope, denoted the place in the equatorial region where I had pierced the eye. The congestion of the inner membranes disappeared; the pupil was slightly oval, being drawn toward the corneal wound, which had left a small adherent leucoma. Tension and shape of the eye were normal, and the patient had recovered almost complete acuity of vision ( $V. = \frac{2}{30}$ ). I saw him from time to time, last in the spring of this year, and found neither irritation nor any other changes in the eye than the scars described.

During my absence in Europe, last August, the boy presented himself at my office to Dr. T. R. Pooley, who replaced me, and at once told the mother that a cyst had developed in the iris. He had the courtesy to advise the mother to wait for my return, which was expected in September. When I saw the patient, on the 21st of last month, I could but confirm Dr. Pooley's diagnosis. A transparent cyst occupied the upper third of the anterior chamber. Its translucent wall was in contact with the cornea, the iris (which it had detached from its ciliary insertion), the free upper part of the lens-capsule, and probably with the head of the ciliary muscle and the trabecular tissue, which constitutes the inner boundary of Fontana's

spaces. The lower convex border of the cyst was in front of the centre of the pupil. (See Fig. 1 of the accompanying wood-cut.) The pupil dilated by atro-



FIG. 1.



FIG. 2.

pine; the media and fundus were found healthy. Sight good.

I operated on the eye a few days later. A Graefe's knife was passed through the upper part of the anterior chamber, extending on both sides beyond the limits of the cyst. The iris, together with the cyst, prolapsed; both were seized with forceps, drawn out, and cut off. The recovery was kind and rapid. There was a large and clean coloboma. Only the upper part of the cornea shows an opacity, about twice the size of a pin-head, evidently a part of the anterior wall of the cyst, remaining in contact with the cornea. Whether or not it will be the starting-point of a new cyst, I am not prepared to state. But from the radical removal of all the iris tissue, in which the cyst originated, I am inclined to frame a favorable prognosis.

The cyst is in intimate connection with the iris tissue. Its wall consists of a hyaline membrane, upon the outer side of which a moderate number of spindle-shaped cells are observed, whereas the inner side is lined with a regular layer of well-developed epithelium cells. (See Fig. 2 in the above wood-cut.) The specimen, therefore, belongs to the group of serous cysts of the iris, which is the more common; the other, the atheromatous, being very rare.

#### A CASE OF EPITHELIAL CANCER OF THE LARYNX—THE VALUE OF TRACHEOTOMY AS A PALLIATIVE PROCEDURE.

DR. BEVERLEY ROBINSON exhibited a patient upon whom he had performed tracheotomy for epithelial cancer of the larynx.

A. C., æt. 31, by occupation a jeweler, came under my care October 18, 1876. Eighteen months prior to this date he began to suffer from pain in his throat during deglutition. Not until fourteen months later did he suffer from cough and expectoration of viscid phlegm. At that period his breathing was easy. He had been hoarse, however, during four to five months, and his cough had a sharp, metallic ring. For the past two months patient had had profuse suppuration from the left middle ear. His general appearance was pale and anæmic, but not cachectic. Upon inspection and palpation of his throat externally, no swelling of the soft parts over the larynx was found, and there was no deviation of this organ. The lymphatic glands of the neck and under the lower jaw were normal. By moderate pressure no additional pain was occasioned. A *laryngoscopic examination* showed considerable thickening of the epiglottis and a well-marked mamillary appearance of its posterior surface. Along its free margin two deep fissures were distinctly visible. The upper two-thirds of the epiglottis were involved by the morbid process. Upon more careful investigation an olivary

growth was seen projecting from the ventricular space on the left side. The vocal cords and ventricular bands were not implicated by the growth. The arytenoid cartilages were swollen and smooth. Physical exploration of the chest furnished only negative signs of morbid changes, although the dyspnea was greater upon slight physical exertion than could fairly be accounted for by the intralaryngeal condition. From Oct. 20th to Nov. 22d, on several occasions I brought away, by means of Mackenzie's tube-forceps, portions of the growth seated in the sacculus laryngis. These were examined microscopically by myself, and afterward by Dr. Satterthwaite, and declared to have, without doubt, the characters of epithelial cancer.

On Dec. 6th the morbid processus had extended visibly to the arytenoid cartilages and the ary-epiglottic folds. Ulcerative action was already considerable, and by Jan. 5, 1877, the disease involved the entire larynx. March 10th, patient's condition not much changed since last seen. I did not see him again until Jan. 15, 1878, when I was requested by Dr. Davidson, at that time house-physician to the Mt. Sinai Hospital, to call and make an examination of his throat. I found him suffering from intense dyspnea and incessant cough. He was very hoarse, pale, and emaciated, and his breathing stridulous in character.

With the laryngeal mirror the epiglottis, arytenoid cartilages, and ary-epiglottic folds were *all* found to be very much infiltrated, but smoother than when last examined. During phonation these masses approximated so closely that the vocal cords could not be seen, and the superior opening of the larynx was entirely occluded.

March 29th, was called to see patient at his own home. He told me that tracheotomy had been performed upon him by Dr. Guleke nine weeks previous. He was still wearing a tracheal tube. This tube was in silver, with an oblong opening on its convex surface to permit the passage of air through the larynx. For some days past patient had had increasing difficulty in introducing and withdrawing his tube. This difficulty I found to be occasioned by the median portion of the thyroid gland elongated downward, and which partially filled up the opening of the tube. After removing his tube by forcible traction, I introduced an ordinary tracheotomy canula, and patient was able to talk very intelligibly.

Sept. 29th.—Patient came to see me, breathing easily through his tube. His whole aspect was greatly improved, and he had grown quite stout. His face, though somewhat pale, presented a healthy hue. There was no engorgement of the submaxillary ganglia. He swallowed without difficulty, and coughed infrequently. He then wore a canula perforated with several small holes as large as No. 5 to 6 shot upon its convex surface. These openings enabled him to talk intelligibly when the outer orifice of the canula was closed. Without these small holes, when the tube was closed with a finger, he could only make himself understood imperfectly and by a strong effort of articulation. The mucous membrane of the trachea and the surrounding soft tissues had no tendency to become impacted in the orifices of the canula, so that the patient could introduce or remove it with perfect ease. The superior opening of the larynx was not larger than one of the openings of the tube, and during inspiration none of the intralaryngeal parts could be seen. This small orifice was surrounded by the thickened and infiltrated epiglottis, arytenoid cartilages, and ary-epiglottic folds, which were *all* now

smooth, and offered the appearances of a hard edematous condition.

The points of special interest in this case, and to which I would call your attention, are the following:

1. The rarity of this *form* of disease. Out of thirty-seven cases of cancer observed by Dr. Charles Favvel, of Paris, he has only seen one case in which it took origin in the epiglottis.

2. Absence of engorgement of ganglia of neck, which hitherto has been considered a *constant* sign of this disease.

3. Changes undergone in the laryngeal appearances, more particularly after the performance of tracheotomy.

4. Great improvement in deglutition, cough, and general health.

Are not these different favorable modifications of the patient's condition, both general and local, due to the *rest* afforded the larynx by the presence of the tube and equally, too, by the absence of the frequent and irritating contact of the atmospheric air with eroded and irritable mucous surfaces?

5. The small holes in the convex portion of the tracheotomy canula, enabling the patient to talk intelligibly through a single, equally small opening in the larynx. This fact shows how small a column of air arising from the larynx can produce good vocal sounds. In my case the patient cannot breathe sufficiently through an opening, which is, nevertheless, quite large enough for the transmission of moderately powerful vocal sounds. The practical deduction is that the large oval opening left in certain exterior tracheotomy canulae are not essential, and that one or more smaller openings is all that is required in instances where the column of expiratory air cannot pass *around* the outer canula.

In connection with this case, I take pleasure in showing to the Society a solid tracheotomy guide, which I had made for myself, in order to facilitate the introduction of the canula after an incision has been made into the trachea. The use of this guide precludes the use of all forms of tracheal dilators, and thus one of the drawbacks in many operations of tracheotomy is almost entirely removed.

Dr. BRIDGON thought that the case exemplified the utility of giving rest to the larynx in serious diseases of the organ. Such a principle of treatment was well founded in cases of syphilitic disease, and there was no reason why equally good results should not follow in cases of epithelioma. He referred in this connection to a case of syphilitic disease of the larynx, in which the patient wore a tube for six months, with great comfort, and with a corresponding relief of his laryngeal symptoms. Finally the necrotic processes became so extensive, that extirpation of the disease was considered necessary. Death resulted soon afterward.

Dr. HOWE stated that he understood Dr. Robinson to say, that the disease in the larynx disappeared after the operation. If this were a fact, he doubted the correctness of the diagnosis of epithelioma.

Dr. ROBINSON remarked, that he did not wish to be so understood. The disease in the larynx had not disappeared, but was made stationary, and there was an absence of the evidences of irritation.

Dr. HOWE had never seen a case in which such a condition obtained. In fact, he could not conceive how ulcerations, due to malignant disease, should show any signs whatever of healing.

Dr. BRIDGON—That may be possible to a certain extent.



DR. RIPLEY—The rule is when ulcerations have commenced, that the disease progresses very rapidly.

DR. BRIDGON—That is the rule; but there are exceptions to it.

DR. RIPLEY said that Dr. Robinson's case illustrated an important fact in regard to the small size of the opening really required to admit the necessary quantity of air. He believed, ordinarily, that openings made into the trachea were too large. He had a canula, which was small enough to use upon a child one year old, and yet large enough for an adult.

DR. BRIDGON thought that the tube should, in any case, be large enough to prevent any noise in inspiration. As a rule, he thought, that the smaller the opening consistent with a sufficient supply of air, the better.

#### DEATH IN CONFINEMENT—PULMONARY THROMBOSIS.

DR. E. M. CUSHIN presented the lungs and heart removed from a patient, who died in the confinement ward of the N. Y. Infirmary, on Aug. 10, 1878. The following was a history of the case:

Louisa M., aged 28, native of this country. Entered the infirmary for her sixth confinement. Her condition was excellent; the only symptom complained of being a frequent desire to urinate. The urine, upon examination, being found quite normal, this symptom was attributed to pressure of the fetal head. On August 2d, labor began; it was normal throughout, lasting about ten hours from the beginning of dilatation of os. At about 5 P.M., a male child was born, which weighed 11½ lbs.; the uterus contracted well. At 9 P.M., there was some pain complained of. Upon examination, the uterus was found reaching nearly to the umbilicus, and firm to the touch; a clot being suspected, the bladder was emptied, and a digital examination was made; no clot was found, however, and the size of the organ was attributed to incomplete retraction of its muscular fibre. Ergot and an anodyne were given, and from this time, although the uterus remained large, the lying-in was apparently normal in every respect. The pulse and temperature, taken night and morning, were normal throughout. The temperature being elevated but one degree on two occasions, and the pulse varying from 68° to 72°, excepting on two occasions, when it rose to 80°.

On the morning of the 9th day, I gave the patient permission, for the first time, to sit up. The record shows on this morning a temperature of 99°, pulse 80, and respiration 20. At about eleven A.M. I was hastily summoned, the messenger saying that the patient in question had fainted. Upon arriving in the ward, I found her unconscious, with the eyes fixed, and the pupils dilated. The pulse was beating moderately full and regular, and she was making violent respiratory efforts. I learned from the nurse, that the attack had come on suddenly. Upon the patient sitting up and attempting to move to a chair, she made an exclamation, and fell back upon the bed. Soon after my arrival consciousness returned, and the patient gasped out that she should die, and begged for air. The restlessness became extreme. The history of the attack, and the symptoms leaving no doubt as to the diagnosis, and the prognosis being almost equally certain, the patient's bed was rolled from the wall to an isolating room. At this time the heart's action became very weak and irregular. An attempt to administer a stimulant was followed by an agonizing attack of suffocation, and the heart ceased beating. The application of a Faradic current, which was at hand, and hypodermic injections of brandy, restored

the heart's action. Consciousness returned, and the patient spoke intelligently. A few moments after she turned suddenly upon her side, and as suddenly the heart again ceased to beat. The respiration ceased at this time also; all efforts at restoration were unavailing. The attack, from its onset until death, lasted about thirty minutes.

*Post-mortem*, four hours after death.—Moderate rigor mortis; fine muscular development. Upon opening the thorax, the pericardial sac was found very much distended towards the right side. The diaphragm was elevated. The lungs were collapsed, lying in the upper portions of their respective cavities. There was but the normal amount of fluid in the pleural cavities. The lungs were free, excepting at a circumscribed point at the apices of each, where there were slight adhesions. Upon opening the pericardial sac, only the normal amount of fluid was found, and the distention proved to be due to the size of the right ventricle and auricle, which were expanded to their utmost. Upon opening them, a large amount of entirely fluid blood escaped. The heart and lungs were then removed together for further examination. The liver and spleen were congested, otherwise normal. The kidneys, especially the left one, were also congested. The uterus reached three and a half inches above the pubes. Its tissue, and that of its appendages were quite healthy.

The veins of the pelvis were then examined. The left uterine vein contained a soft clot, which extended into the internal iliac as far as the common iliac. The ovarian vein of the same side also contained a clot, reaching almost its entire length. No clots were observed in any of the other veins. The bladder was very much diminished in size, and its walls greatly hypertrophied; the mucous membrane was healthy. At the internal meatus there was a slight stricture. The heart and lungs were then more carefully examined. Upon seizing the pulmonary artery, a resistant mass could be felt, extending as far as the entrance of the vessel into the lung. A triangular incision was then made in the right ventricle, and upon lifting the flap, and exposing the pulmonary orifice, the latter was found to be entirely occluded by a firm, irregular, and pale-red clot. The right oricular ventricle valve was normal; the left ventricle was firmly contracted. The valves of the left heart were normal, and there were neither fibrous clots nor strings in any part of the cavities of the heart. The lungs were diminished to about one-third.

#### EXTIRPATION OF CANCER OF RECTUM.

DR. BRIDGON presented a specimen of cancer of the rectum, which he had removed by amputation from a maiden, æt. 36, a native of Ireland, and a dressmaker by occupation. She was admitted to the Presbyterian Hospital, Sept. 14th, 1878. He then gave the following history as prepared by Dr. Lacayo, house surgeon of the hospital: Patient's father, mother, and two brothers died of phthisis. Two sisters have had hemorrhage from the lungs. One of her aunts died of a tumor in her uterus, the nature of which she is not able to say. She has always been very healthy up to two years ago, when she began to complain of slight nocturnal backaches. About six months ago the pains increased in severity, and were accompanied by tenesmus and bleeding from the rectum; this condition lasted for two months; the following two months she was free from suffering. Two months ago, the pain, tenesmus, and bleeding returned in a more aggravated form; they were constant, and accompanied by constipation; she has gradually lost flesh.

Patient was a thin woman, apparently of a weak constitution. Appetite good. Bowels constipated. She suffers from a great deal of pain and bleeding from the rectum.

Between two and a half and three inches above the anus the finger comes in contact with an irregular, nodular growth, involving principally the anterior and right lateral half of the gut; it extends up at least two inches, and it is only with difficulty, crowding the finger upward, that its superior limit can be reached. On the right side it appears to be continuous, with a solid mass as large as a hen's egg, and through which it is fixed to the pelvic wall.

Sept. 19th, the operation of extirpation of the rectum was performed by Dr. Briddon. The patient being put under ether, the operation was designed so as to spare both sphincters, and, in fact, all the healthy gut below the tumor. The perineum in front was transfixed by a long, straight, sharp-pointed bistoury entering immediately behind the fourchette, and coming out in the rectum one inch above the internal sphincter; by a sweep of the knife all the intervening tissues were severed; the fingers were then entered into the connective-tissue space between the rectum and the vagina, and the former was peeled off as high as the fingers could reach; the perineum behind was then transfixed by entering the bistoury one inch above the sphincter internus through the posterior wall of the gut, and out through the integuments in front of the point of the coccyx; these incisions in front and behind the anus divided the whole perineum into two flaps, and in each lateral flap was half the sphincter and a longitudinal strip of undisturbed mucous membrane reaching from the verge of the anus to the seat of the disease; traction on the lateral flaps through these strips of membrane served to bring down and steady the gut above; next the connections between the gut and sacrum were broken up as high as the middle of that bone; and now, having pretty good control of the tumor, a transverse section was made below the growth, leaving the strips of mucous membrane below intact; it now became manifest that the solid mass of the tumor was firmly adherent to the right sacro-iliac ligament, and it was very difficult to sever this connection; it was also found that the upper limit of the growth was incorporated with the perineum, the outside of which was visible, and demonstrated to those around; in attempting to dissect this off, it was opened to the extent of two inches; it was, however, promptly closed by a number of carbolized catgut sutures, and the process of separation was continued upwards until we got fairly above the limit of the growth; this, of course, opened the meso-rectum, but it was unavoidable. The gut was now divided above the limits of the disease and stitched to the mucous membrane left in the lateral flaps; there was no traction on the sutures, in fact there was, if anything, a redundancy of tissue; deep drainage-tubes were introduced, and the perineum was restored by deep silver-wire sutures, supplemented by superficial ones of carbolized silk, and the wound was thoroughly irrigated with carbolic acid solution.

The operation lasted two hours and a half, and the evidences of shock, although the loss of blood was not very great, were pronounced; but, of course, a good deal of this might be attributed to the prolonged etherization.

Twenty-four hours after the operation symptoms of peritonitis set in; these subsided, however, in four days under the free use of opium and cold water applied to the abdomen. The wound was kept clean, though there was very little discharge. With the ex-

ception of vomiting every now and then the patient got along very nicely until the eighth day after the operation, when she commenced vomiting continually. The discharges from the wound were grumous and very offensive at this time. On the ninth day the vomiting was controlled, and the patient felt very easy and comfortable all day. At 8 p.m., she went into a state of collapse, and died next morning at 8 a.m. Her temperature ranged from 97° to 101°; her pulse, 105 to 135.

At the autopsy all the organs, except the kidneys, were found normal; they were in condition of chronic diffuse nephritis; right weighing 4 oz., left 2 oz.

There was unexpected absence of the evidence of those destructive processes which would be looked for after an operation of such magnitude, and in which there was so much separation of connective tissue; there was simply no union anywhere, no process of repair, and at some points the surface was covered with slough. The upper portion of the rectum was separated from the lower by an interval of about an inch. Evidences of peritonitis limited to the Douglas cul-de-sac; wound in peritoneum ununited.

Examination of growth, by Drs. Satterthwaite and Porter: The tumor involved the right lateral portion and posterior half of the rectum, commencing three inches above the anal orifice, and extending up about three inches. It occurred as a deep funnel-shaped ulcer with irregular and raised edges, the mucous membrane around being thickened to a slight extent. The gut was contracted at two points, its lumen at the lower stricture being about one-half an inch, and the upper about one-third. The gut above opened principally into the ulcer, the same condition existing below. The diameter of the ulcer was two and a half inches; the depth one and a half inch; it was in the hardened mass behind the deepest portion of the ulcer that evidences of cancer were found.

In making a microscopic examination of the rectum at a point midway between the anal orifice and the sigmoid flexure, where the diameter of the strictured gut was not more than one-half inch, it was found that an active infiltration of the parts existed; the new corpuscles being apparently lymphoid, they existed in the epithelial coating of the surface of the intestine about the crypts of Lieberkuhn, in the submucous and muscular tissue. The crypts were lengthened, measuring on an average from  $\frac{1}{37}$  to  $\frac{1}{28}$  of an inch; muscular tunics only slightly thickened; the circular chiefly. Posterior to the gut, in the thickened substance which formed the mass that was adherent to the right sacro-sciatic ligament, the evidence of cancer, in the shape of epithelial nests in connective-tissue alveoli were found.

DR. STIMSON referred to a case in which, he said, a similar operation had been performed by Dr. Keyes, and with the same object of saving a portion of the mucous membrane between the verge of the anus and the seat of the disease.

#### RUPTURE OF THE URETHRA FROM A KICK.

DR. W. T. BULL exhibited a specimen of rupture of the urethra, the result of a kick in the perineum. The patient was forty years of age, and was not seen until thirty-six hours after the accident, when he was admitted to the Chambers Street Hospital. On admission he complained of intense pain in the hypogastric region, cedematous swelling of perineum, and the other symptoms of urinary extravasation. No instrument could be passed in the urethra beyond a distance of five inches. An incision was promptly made in the median line; both ends of the urethra were secured,



and free communication established. The patient did well for three days, when he died suddenly, the result of cardiac thrombosis.

At the autopsy the bulbous portion of the urethra was found torn across completely, the two ends having been separated from each other fully three-quarters of an inch. In the intervening cavity were some broken down blood-clots. Anterior to the rent there was a contusion of the mucous membrane of the urethral wall, due to efforts at catheterization.

#### HAIR-PIN IN THE FEMALE BLADDER.

Dr. J. C. PETERS exhibited some calcareous deposits and a hair-pin four inches in length, which were removed by operation from the bladder of a young female. For fourteen months she had been under the care of an homœopathic practitioner, who had diagnosed cancer of the uterus. The remedies prescribed were the juice of six lemons daily, rhubarb and aloe pills, codeine, arsenic, and quinine. When Dr. Peters was called to the case, on the first examination of the bladder, he struck a calculus. As felt through the vagina, the stone seemed to be as large as the end of the thumb. An operation was suggested at once. The urine, having been examined, was found loaded with albumen, but the kidneys themselves were sound. The operation was performed, Oct. 2d, by Dr. Snelling. The urethra was dilated, and, after considerable difficulty, owing to the peculiar shape of the foreign body, the latter was removed along with a considerable quantity of calcareous matter. The time occupied was about one hour. The removal of the hair-pin was effected by the introduction of one finger into the bladder and the other into the vagina. When the young lady recovered from the effects of the ether, she was merely shown the calcareous matter removed from the bladder, giving her an opportunity for supposing that the hair-pin had been absorbed.

Dr. BRIDGON remarked that there were quite a large number of instances in which female patients had introduced foreign bodies into their bladders. He had in his possession a hair pin, also removed from the bladder, where a calculus as large as a walnut attached. It was given to him by Dr. Walter Gillette, who extracted it through a vaginal incision. In this connection he referred to a female patient in the Presbyterian Hospital, who acquired the habit of introducing foreign bodies into her bladder. He finally concluded to stop the practice by encircling the orifice of the urethra with a silver wire, leaving just space enough for the passage of the urine.

The Society then went into Executive Session.

#### NEW YORK ACADEMY OF MEDICINE.

##### SECTION ON OBSTETRICS.

*Stated Meeting, Oct. 24, 1878.*

Dr. SALVATORE CARO, CHAIRMAN.

#### ABSCESS OF THE KIDNEY OCCURRING IN A CHILD THREE WEEKS OLD.

Dr. CHURCH related the history of a case as follows: A child, born apparently healthy, was, when three weeks old, suddenly attacked with severe pain in the abdomen, the cause of which was not at once diagnosed.

There was considerable febrile movement, and it was thought there might be some enteritis present, although there were no well-marked symptoms of any

abdominal disease. Pain being the chief symptom, it was controlled by the use of opium.

At the end of ten days a circumscribed swelling appeared in the left hypogastric region. It was dull upon percussion. Fluctuation was recognized at the end of two or three days, and a considerable quantity of pus was drawn off by means of the aspirator. Only a short time elapsed before the swelling had regained its original size. The child continued to lose flesh and strength, and finally died. At autopsy the capsule of the left kidney was found filled, and the kidney itself infiltrated with pus. Dr. Church thought that abscess of the kidney was an unusual occurrence at such an early period in life. Abscess rarely occurred in that region, except in connection with calculi, and it could scarcely be supposed that a calculus had formed at such an early age. The urine was not examined.

Dr. POST referred to a pamphlet recently translated from the French, in which were given certain interesting facts relating to the urine of new-born infants, both in health and in disease. One interesting fact, as stated by the author, was that the specific gravity within the first thirty days did not rise above 1007, and that a low specific gravity continued for some time. He further remarked that abscess of the kidney occurred not very infrequently independent of calculi.

Dr. I. E. TAYLOR referred to cases of perinephritic abscess reported by Dr. Gibney, and questioned whether, in Dr. Church's case, the abscess did not originate outside of the kidney. He also referred to two cases which came under his observation in hospital practice, in which abscess in the region of the kidney was supposed by the surgeons to have had its origin in a chanerous condition of the vulva.

Dr. J. C. PETERS referred to a case of abscess of the kidney, the cause of which was determined only at post-mortem examination.

The child was perfectly well, was rolling upon the floor, when it was suddenly seized with the most intense pain, which could not be attributed to any cause. It was supposed that a pin or a needle was pricking the child, but the most careful search failed to detect any trace of a punctured wound. The child died, and at autopsy a needle was found which had completely transfixed the kidney.

#### MANAGEMENT OF THE BREASTS IN CASES IN WHICH IT IS IMPOSSIBLE FOR THE MOTHER TO NURSE HER CHILD.

Dr. JOEL FOSTER reported two cases in which he had followed the "let-alone" plan of management for the breasts of women who were unable to nurse their children.

In one instance the child was still-born, and in the other the child died a few hours after birth. In both cases the secretion of milk occurred as usual, and the breasts became filled. The breasts were left entirely without treatment, and no trouble whatever ensued. Dr. Foster believed that such a plan of treatment produced far better results than could be obtained by the use of belladonna, by strapping the breasts, or by any other plan of management.

Dr. CARO remarked that the "let-alone" plan of treatment was generally accepted by the Section for those cases in which there was no occasion for nursing from either breast. The question which he had raised when the subject was before the Section for discussion on a former occasion was, what was to be done in cases in which the woman was obliged to give nurse from one breast, but, on account of ab-

sence of the nipple or a like cause, it was impossible for the child to nurse from the other breast? In such cases his plan of treatment was to paint the breast with belladonna.

Dr. CHURCH remarked that the milk could be dried up in one breast with great certainty and safety, by simply covering the breast with diachylon or adhesive plaster. Cut a piece of plaster large enough to cover the breast, apply it, and direct the woman to wear it constantly.

Dr. I. E. TAYLOR remarked that, in cases in which the woman had nursed her child for a few days, and the breasts had become distended, his general plan of management was to do nothing whatever for the breasts, if it was desirable to discontinue nursing. He simply directed the woman to abstain from taking any fluids for a few days, and let the breasts entirely alone.

In cases in which the distention became very great, he occasionally directed that the milk be drawn; but it should be drawn only at long intervals.

Dr. F. V. WHITE asked whether, in ordinary cases in which the milk had been dried up, the general condition of the mother had remained as good as in the cases in which the laws of nature had been more fully regarded and the secretion of milk maintained for some time? His experience had been that it was better for the woman to have the milk drawn for from four to six weeks after confinement than to check the secretion at once.

Dr. FOSTER remarked, it was a received opinion that the secretion of milk should be maintained for a considerable length of time after confinement, and that ten years ago he himself entertained that opinion. But his experience since had convinced him that no ill-effects arose from allowing the milk to dry up at once, and that was the plan of treatment which of late he had adopted.

#### RELATION OF THE UTERUS TO THE MAMMARY GLANDS —PREVENTION OF POST-PARTUM HEMORRHAGE.

Dr. I. E. TAYLOR believed, with reference to the question asked by Dr. White, that it was necessary to consider the intimate physiological relation which existed between the uterus and the breasts. There were cases in which the condition of the woman subsequent to confinement was greatly benefited by nursing; as an illustration, the history of a case was related. The woman had suffered severely from post-partum hemorrhage at her previous confinements, which had usually had a duration of fifteen or twenty hours. To prevent post-partum hemorrhage, the case was managed as follows, the object being to relieve the uterus from prolonged expulsive efforts.

The dilatation of the neck had reached the size of a two shilling piece when the doctor arrived, and the os was soft and yielding. The membranes were ruptured in the interval of pain, and, with the third pain which followed, the child was partially expelled from the uterus. It would have been entirely expelled had not the doctor held the lower extremities and part of the body in the uterus for the purpose of exciting vigorous uterine contractions.

The child was occasionally slapped, and held in the uterus for ten or fifteen minutes (the time might have been longer, if necessary), when it was gradually withdrawn, and firm contraction of the uterus followed. No hemorrhage occurred. The next object was to prevent hemorrhage and secure a good recovery for the woman. To aid in that direction the woman was induced to nurse her child, for Dr. Taylor believed that nursing would assist the process of involu-

tion of the uterus. At the end of four weeks, the woman having been kept perfectly quiet in bed for three weeks, the uterus was well reduced in size, and the doctor was able to report a much more favorable progress in the case than was anticipated. He thought the uterus was much smaller than it would have been had the woman not nursed her child. There were cases, of course, in which it was eminently proper to prevent the mother from nursing her child. The physician should be the arbiter in all cases, but in his decisions he should endeavor, as far as possible, to imitate Nature's indications.

Dr. CARO thought the view entertained by Dr. Taylor, with reference to this case, was probably correct. He had also resorted to the same measure for preventing post-partum hemorrhage.

There was one interesting point in his case, however, and that related to the duration of the previous labors. Dr. Caro thought that the post-partum hemorrhages from which the woman had suffered might have been due to inertia of the uterus consequent upon prolonged labor. Dr. Taylor had, by mechanical and skilful interference, expedited the process of parturition, and therefore prevented the uterus from falling into a condition of inertia, consequently no post-partum hemorrhage occurred. The process of involution, therefore, went on much more rapidly than after former confinements. He believed that the benefit to the mother came more from the mode of delivery than from nursing the child. He further believed that the child was benefited more than the mother by nursing. It was a popular view if the mother was sickly after confinement, she not having been permitted to nurse her child, that it was due to that fact; but Dr. Caro regarded the view as incorrect. If the subsequent health of the mother was not good, it was not due to the fact that she had not nursed her child, but it depended upon some other cause.

Dr. TAYLOR thought that a labor fifteen or twenty hours in length did not necessitate inertia of the uterus. The treatment which he adopted in cases in which he feared that post-partum hemorrhage would occur was to keep the lower portion of the child in the uterus, occasionally slapping the part delivered, until the uterus contracted firmly; he then withdrew the child slowly, and held the uterus with the hand upon the abdominal wall.

There being no further discussion, the Section adjourned.

**NEW METHOD OF COVERING THE TASTE OF COD-LIVER OIL.**—Dr. Ponteres mixes a tablespoonful of cod-liver oil with the yolk of an egg, and when they are thoroughly combined adds to them a few drops of spirits of mint and half a glass of sugar-water. In this way he obtains a sort of mulled-egg, which differs very little from ordinary mulled-egg, and which presents neither the taste nor the odor characteristic of cod-liver oil. It can consequently be taken without repugnance by the most fastidious patients.—*Union Médicale*.

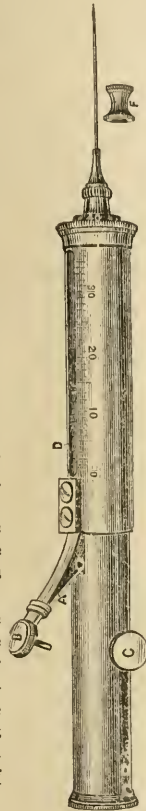
**VULVAR PRURITUS.**—M. Marius Key recommends the glycerole of cade as a local application in the treatment of pruritus of the vulva. The formula he employs is one drachm of oil of cade to half an ounce of glycerole of starch. In combination with it he uses tonics, hip-baths, and emollient injections, to which laudanum is freely added. He has only tried this treatment in one really rebellious case, but that time with success.—*Gaz. Méd. de Paris*.



## New Instruments.

## PARKER'S HYPODERMIC SYRINGE.

DR. T. S. PARKER, of Cohoes, N. Y., has devised a very convenient and useful hypodermic syringe, which is operated upon a somewhat novel principle. It consists of a metallic case, enclosing a graduated glass tube of uniform calibre. The piston is made into a rack, the serrations of which are all mathematically correct, each of said serrations representing the projection of a minim of fluid. This rack piston, which, when the instrument is filled with fluid, is contained in a separate compartment behind, is worked by means of a small thumb-spring. Each depression of this spring causes its angular bar to catch into a notch and move the piston a corresponding distance forward. This contrivance does away with the necessity of setting the instrument for any particular quantity to be used, requiring only the counting of the clicks of the spring to ascertain the precise number of minims injected. The instrument is kept constantly loaded, and when not in use a cap is screwed upon the extremity of the barrel, in place of the needle. The filling of the barrel is accomplished by sliding the ring (O) of thumb-bar downward, lifting the bar from the rack, and allowing the piston to be worked by the sliding button (C). On the whole, the instrument is a very handy and effective one, and, with reasonable care, is not liable to get out of order. It has, besides some other advantages, that of being easily operated with one hand.



## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 20th to October 26th, 1878.*

BAILY, J. C., Major and Surgeon. Granted leave of absence for one month, with authority to go beyond the limits of the Division. S. O. 159, Div. of the Pacific and Dept. of California, October 15, 1878.

CORSON, J. K., Capt. and Asst. Surgeon, relieved from temporary duty at Fort Whipple, A. T., and assigned to duty as Post Surgeon at Fort Yuma, Cal., S. O. 119, Dept. of Arizona, October 10, 1878.

AINSWORTH, F. C., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Whipple, A. T. S. O. 119, C. S., Dept. of Arizona.

BARNETT, R., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 93, Dept. of the Platte, October 14, 1878.

**TREATMENT OF MIGRAINE.**—Dr. Schartzke speaks highly of salicylate of soda in the treatment of nervous migraine. He gives at the onset of the headache, thirty grains of the drug dissolved in half a glass of sugar-water.—*Berliner klin. Wochen.*

## Medical Items and News.

**CONTAGIOUS DISEASES — WEEKLY STATEMENT.**—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 26, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Oct. 19, 1878. | 0             | 28             | 43             | 1                          | 1        | 48          | 0          | 0             |
| Oct. 26, 1878. | 0             | 19             | 43             | 2                          | 1        | 33          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE, WASHINGTON, D. C., Oct. 26, 1878.

**NATIONAL QUARANTINE REPORT.**—Abstract of Sanitary Reports received during the past week under the National Quarantine Act:

*New Orleans.*—During the week ending yesterday evening there were 699 cases of yellow fever and 229 deaths. Total cases, 12,881; deaths, 3,864.

*Plaquemine, La.*—Total cases of yellow fever to Oct. 20th, 1,159; total deaths, 125.

*Baton Rouge, La.*—For the past week there were 170 cases of yellow fever and 15 deaths. Total cases, 2,340; deaths, 144.

*Morgan City, La.*—There were 7 deaths from yellow fever during the past week. Total cases to date, 510; deaths, 94.

*Port Hudson, La.*—Report to Oct. 20th gives total cases of yellow fever, 75; total deaths, 10, including four resident physicians. The first case of the fever occurred Sept. 9th; first death, Sept. 13th.

*Mobile, Ala.*—There were 71 new cases of yellow fever and 17 deaths during the week ending yesterday evening. Total cases, 164; deaths, 49.

*Ocean Springs, Miss.*—No deaths from yellow fever during the week ending at noon yesterday. There were 8 new cases in Ocean Springs, and 9 cases in the country not previously reported. Total cases, 145; deaths, 29.

*Pass Christian, Miss.*—For the past week there were 44 cases of yellow fever and 5 deaths. Total cases, 170; deaths, 18.

*Water Valley, Miss.*—Total cases of yellow fever to yesterday evening, 146; total deaths, 60. Six new cases yesterday.

*Port Gibson, Miss.*—The yellow fever has spread into the country. As near as could be ascertained, about 30 deaths occurred in the past week. The colored people in the country repel the friendly aid offered them, for fear of having the yellow fever brought to them by nurses, while they are dying from it without knowing that it is yellow fever.

*Hudson, La.*—To Oct. 13th there had been 75 cases of yellow fever and 18 deaths.

*Germantown, Tenn.*—The first case of yellow fever occurred August 20th. First case among inhabitants, August 25th. Total cases to noon, Oct. 16th, 65; deaths, 36.

*Memphis, Tenn.*—For the week ending the evening of the 24th inst., there were 50 deaths from yellow fever. Total deaths, 2,942.

*Brownsville, Tenn.*—During the week ending yesterday evening there were 16 deaths. Total cases, 560; deaths, 152.

*Chattanooga, Tenn.*—For the past week there were

80 cases of yellow fever and 23 deaths. Of these, 51 cases and 9 deaths were among colored people.

*St. Louis, Mo.*—At quarantine, during the past week, 3 residents were admitted and died of yellow fever. One patient, previously reported, also died of yellow fever.

*Cairo, Ill.*—For the two weeks ending yesterday evening there were 44 cases of yellow fever and 6 doubtful cases. Deaths for the same period, 16. Total cases, 76; deaths, 41.

*Louisville, Ky.*—There were 4 new cases of yellow fever for the week ending yesterday evening, and 7 deaths. Total cases, 131; deaths, 61, including refugees.

*Cincinnati, Ohio.*—No new cases of yellow fever during past three weeks. One death reported for the past week.

*Detroit, Ala.*—During the week ending yesterday evening there were 23 new cases of yellow fever and 13 deaths. Total cases, 178; deaths, 40.

*Biloxi, Miss.*—Up to Oct. 17th there were 295 cases of yellow fever and 40 deaths.

*Greenville, Miss.*—To noon of Oct. 11th there were 301 deaths from yellow fever, 21 of which were in the country outside of Greenville.

No cases of yellow fever or deaths during the past week at *Port Eads, La., South-West Pass, La., and Key West, Fla.*

*Havana, Cuba.*—23 deaths from yellow fever and 1 from small pox for the week ending Oct. 19th.

*Hernando, Miss.*—During the week ending yesterday evening there were 32 cases of yellow fever and 7 deaths. Total cases, 165; deaths, 63.

Deaths from four *presentable diseases* reported for the week ending Oct. 19th:

*Enteric fever.*—In Baltimore, 5 deaths; Boston, 2; Brooklyn, 2; Charleston, 3; Cleveland, 1; Philadelphia, 9; Richmond, 1.

*Typhus fever.*—One death in Brooklyn.

*Scarlet fever.*—In Baltimore, 6 deaths; Brooklyn, 5; Cincinnati, 14; Cleveland, 2; Philadelphia, 13; Richmond, 1.

*Diphtheria.*—In Baltimore, 6 deaths; Boston, 14; Brooklyn, 15; Charleston, 2; Cleveland, 13; New Haven, 5; Philadelphia, 13; Richmond, 2.

*Great Britain.*—During the week ending Oct. 5th there were 3,409 deaths in 23 large cities of the United Kingdom. The mortality was at the average rate of 21 annually per 1,000 of the population. In Brighton the rate was 14—the lowest; in Liverpool, 28—the highest. In the same cities, not including Edinburgh, there occurred 11 deaths from small-pox, 161 from scarlet fever, and 33 from diphtheria.

*Paris, France.*—There were 30 deaths from enteric fever during the week ending Oct. 3d. The annual rate of mortality per 1,000 of the population, based on weekly mortality, was 22.5.

No deaths from cholera in Calcutta for the week ending Aug. 24th, and none in Bombay for the week ending Sept. 3d.

No reports received from the following places, where yellow fever exists: Vicksburg, Miss.; Holly Springs, Miss.; Canton, Miss.; Grenada, Miss.; Bay St. Louis, Miss.; Friar's Point, Miss.; Mississippi City, Miss.; Spring Hill, Miss.; Crystal Springs, Miss.; Hickman, Ky.; Grand Junction, Tenn.; Paris, Tenn.—JNO. M. WOODWORTH, *Surgeon-General United States Marine Hospital Service.*

**HEAVY SENTENCE OF A DENTIST.**—The Court of Assizes of the Seine-Inférieure, France, recently condemned a dentist named Paul Lévy to ten years' im-

prisonment for the crime of rape. His victim was a young girl, 20 years of age, and the crime was committed while she was under the influence of an anæsthetic. Lévy is married and is the father of three children. He has practised his profession for some time in the city of Lyons.

**MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.**—The following officers have been elected for the ensuing year:—President, Dr. Freeman J. Bumstead; Vice-President, Dr. A. E. M. Purdy; Recording Secretary, Dr. F. A. Castle; Corresponding Secretary, Dr. W. M. Carpenter; Treasurer, Dr. H. P. Farnham; Censor, Dr. P. F. Mundé.

**THE ROLL OF HONOR.**—The following physicians have died since our last report while in attendance upon patients suffering from yellow fever:

*Memphis, Tenn.*—Oct. 18th, Dr. M. T. Keating, volunteer from New York.

*New Orleans, La.*—Oct. 18th, Dr. Wilhelm Zinsser.

*Brownsville, Tenn.*—Oct. 18th, Dr. Gundtadt, volunteer from St. Louis, Mo.

*Tangipahoa, La.*—Oct. 15th, Dr. Carter.

*Angola, La.*—Oct. 20th, Dr. Heath.

*Pattersonville, La.*—Oct. 17th, Dr. M. A. Roche.

*Vicksburg, Miss.*—Oct. 23d, Dr. Gilliland.

*Holly Springs, Miss.*—Oct. 24th, Dr. Compton.

Total to date, 100.

**CREATION OF A GASTRIC FISTULA IN A CASE OF STRICTURE OF THE ŒSOPHAGUS.**—Prof. Trendelenburg, of Rostock, reports the case of a boy, eight years of age, who suffered from stricture of the œsophagus, caused by swallowing sulphuric acid. The boy was admitted into the hospital towards the end of 1876, and gastrotomy was performed on March 28, 1877.

It is worthy of note that Prof. Trendelenburg prefers a narrow opening, which can be closed by a simple drainage-tube, to a free opening, which would require a special apparatus for its closure. With the exception of a slight eczema about the fistula, the case presented no special features after the operation. A fruitless attempt was made to pass a sound through the stricture from below upward. The patient is now in good health and well nourished. He chews his food as usual, and takes also his drink in his mouth, and passes them into the stomach through a rubber tube.

Prof. Thiersh has been convinced by the examination of some preparations in the Leipsic Museum that the chief difficulty in passing a sound through a strictured œsophagus is due not to the narrowness of the stricture, but to the fact that three or four strictures, separated by two or three centimetres of normal mucous membrane, exist one over another. The bougie usually slips through the first one easily, but is arrested by the second, because the openings lie eccentrically, and not centrically.—*Alg. Med. Cent. Zeit.*

**ASPILIA LATIFOLIA, A NEW HEMOSTATIC.**—Dr. Roberts, of Liberia, Africa, speaks very highly of the hemostatic qualities of this plant, which is indigenous to the country, and is used by the natives in preference to all other drugs and methods. He has himself in several cases of wounds of arteries seen the hemorrhage stop in a few minutes, and the wounds heal in a few days, under a dressing of the bruised leaves and blossoms of the plant. It is still uncertain whether it acts mechanically like matico, or, like the juice of the *Jatropha curcas*, by coagulating the fibrin of the blood.—*Alg. Med. Cent. Zeit.*



## Original Lectures.

## LECTURES ON THE LOCALIZATION OF SPINAL AND CEREBRAL DISEASES.\*

By E. C. SEGUIN, M.D.,

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## LECTURE VIII.

SUMMARY:—SURGICAL ASPECTS OF THE QUESTION OF CEREBRAL LOCALIZATIONS—CRANIO-CEREBRAL TOPOGRAPHY, AND ITS UTILIZATION IN DIAGNOSIS AND FOR OPERATIVE PROCEDURES.

GENTLEMEN:—The question of the utilization of the doctrine of localization in surgery remains for study. This, the most novel part of the subject, is, I think, of great present interest and of much promise in the future. Already several brilliant surgical operations have been performed upon indications derived from the newly acquired knowledge of cranio-cerebral topography. By this term we mean the determination of the relations between the external surface of the skull and the principal gyri and sulci of the brain. So little was done toward ascertaining these relations that up to 1861 the position of the fissure of Rolando relative to the coronal suture was wholly unknown. In that year Prof. Broca invented a scientific procedure for the study of the subject; he inserted pegs into the cerebral substance through holes drilled into the skull at given points, and then, removing the skull-cap carefully, was enabled to determine exactly what convolutions corresponded to the pierced regions of the skull. He thus discovered that the parieto occipital fissure lies under the lambdoid suture, and that the fissure of Rolando slopes backward, so that its posterior extremity is placed at more than forty millimetres behind the coronal suture. Since that year the subject has been thoroughly studied by Broca, Bischoff, Heftler (1873), Prof. Turner, of Edinburgh (1874), Ch. Féré and Broca (1875), and others. Perhaps the best and most applicable of these contributions is that of Féré, and I shall follow it closely in the following remarks. It should be borne in mind that for purely anthropological purposes the determination of the relation of gyri and sulci to certain sutures or processes of the bare skull is sufficient; but that for use in the regional diagnosis of cerebral injuries, and in practical surgery, the cranial landmarks should be such as are easily determined upon the scalp and face in the living man. The *résumé* of cranio-cerebral topography which I offer for your guidance is based upon the latter principle of study.

As shown in Fig. 10, I shall sketch the situation of the principal convolutions, fissures, and central gray bodies of the cerebrum upon an outline figure of the profile of a skull. The skull is represented as resting upon a peculiar plane, one passing under the condyles of the occipital bones and the alveolar processes of the superior maxillæ—the alveolo-condyloid plane of Broca. Upon this horizontal line, which can be determined with reasonable accuracy in the living human being, we erect other lines and measure distances which enable us to solve almost the whole problem.

1. A vertical line (A) drawn from the alveolo-con-

dyloid plane through the external auditory meatus upward will pass through or very near to the bregma or line of junction of the frontal and parietal bones at the vertex; it passes through the anterior (lower) extremity of the fissure of Rolando.

2. If from the upper end of this vertical line A, we measure a distance of 45 mm. backward toward the occiput and draw a descending vertical line (1-2), we mark out the location of two most important parts of the cerebrum, viz., the posterior extremity of the fissure of Rolando, and the posterior limit of the thalamus opticus in the hemisphere [at c].

3. To conclude with the occipital end of the skull; if we can make out with the finger the lambdoid suture at the median line, we thus learn the situation of the subjacent occipito-parietal suture, which separates the parietal and occipital lobes.

4. The last vertical line worth noting is one drawn at a distance of 30 mm. forward of the auriculo-bregmatic line. This vertical line (3-4) will pass through the middle fold of the third frontal convolution (just forward of the speech-centre), and will also indicate the anterior limit of the central cerebral ganglia, viz., the head of the nucleus caudatus in the hemisphere [at (d)].

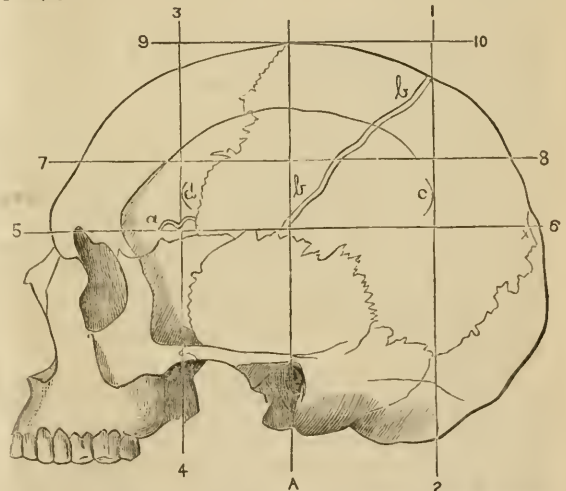


FIG. 10.—Outline of skull resting upon the alveolo-condyloid plane of Broca: modified from Topinard (*Anthropology*). Vertical line A, or auriculo-bregmatic. Line 9-10 drawn parallel to the plane of Broca. Upon this line, at a distance of 45 mm. posterior to the bregma, a vertical line, 1-2, will pass through the upper (inner) end of the fissure of Rolando, b b, and through the posterior extremity of the thalamus opticus, c. A third vertical line, 3-4, drawn at 30 mm. forward of the bregma, will pass through the fold of the third frontal gyrus, a, and through the head of the nucleus caudatus (d). The horizontal line 7-8, at 45 mm. below the bregma (scalp), indicates the upper limit of the central ganglia. The third horizontal line 5-6, passing through the external angular process of the frontal bone and the occipito-parietal junction, approximately indicates the course of the fissure of Sylvius, and serves for measurements. At 18 or 20 mm. behind the ext. ang. process on this line is the speech-centre of Broca; 5 to 8 mm. behind the intersection of 3-4 and 5-6, is the beginning of the fissure of Sylvius, and at 28 or 30 mm. behind this intersection is the lower end of the fissure of Rolando, b, l, placed a little too far back in the ent. At x (near 6), near the median line, is the location of the occipito-parietal fissure.

5. The upper level of the central cerebral ganglia may be quite exactly indicated by a horizontal line drawn at a distance of 45 mm. below the surface of the scalp at the bregma (or 35 below the surface of the bare skull at the same point). This line (7-8) also runs across the middle regions of the motor district of the convolutions, containing centres for the face and upper extremities.

6. The external angular process of the frontal bone, not difficult to define in the living subject, is the

\* Delivered at the College of Physicians and Surgeons during the months of December, 1877, and January, 1878.

starting-point of another horizontal line (5-6), whose posterior extremity passes a little below the lambdoid suture. Upon this horizontal line we can, by measurement, determine the location of certain parts. Thus, at a distance of 18 or 20 mm. behind the external angular process lies the folded part of the third frontal convolution (*a*). This point in many heads will correspond with the vertical line 3, 4.

7. The situation of the fissure of Sylvius may be approximately ascertained in the following manner: Its middle portion extends horizontally, almost under the upper part of the squamous suture, which in the living subject is to be found a little below the horizontal line 5-6. The anterior extremity or beginning of the fissure of Sylvius is a little below this horizontal line, at a distance of some 5 to 8 mm. posterior to the intersection of 3-4 and 5-6, and consequently about 22 or 25 mm. anterior to the auriculo-bregmatic line A. Lastly, according to Turner, the parietal eminence almost always overlies the supra-marginal gyrus (*P*<sub>2</sub>, Fig. 9), consequently the posterior extremity of the fissure of Sylvius is likewise in this vicinity.

8. The angular gyrus is to be found below and behind the parietal eminence, a little above the horizontal line drawn from the external angular process (5-6).

9. The anterior (lower) end of the fissure of Rolando lies at a distance of 28 or 30 mm. behind the line 5-6, and a little above it. It is therefore a few mm. anterior to the vertical line A.

The application of these data to practical medicine and surgery is quite obvious.

In medical cases, when tumors of the skull develop externally, we may determine by cranio-cerebral topography whether their extension inward can give rise to the motor symptoms which are present (convulsions and paralysis), according as the excitable districts of the brain are threatened by extension of the growth from the inner surface of the skull, or not.

In surgery, the utility of cranio-cerebral topography is much greater.

For example, as far back as 1871, Professor Broca was able to correctly diagnose an abscess of the left third frontal convolution, and was successful in trephining directly over it. In 1876, Proust and Lucas-Championnière successfully trephined the skull, in two cases, for the removal of fragments which were compressing the ascending frontal and parietal convolutions, and causing paralysis.

In the case of a patient who is paralyzed on one side of the body, after an injury to the skull, the following considerations might justify, or contra-indicate an operation for the removal of bone, of blood, or of pus:

1. If the hemiplegia (or hemi-spasm) be very complete, it is probable that the injury to the brain is considerable in extent, and extends deeper than the special centres for the face, arm, and leg.

2. If the externally evident injury be over non-excitable convolutions, and the paralytic or spasmodic phenomena be marked, it is more than probable that the brain is torn or compressed at other points than under the seat of injury, and an operation is contra-indicated.

3. If the paralytic or convulsive symptoms be on the same side as the evident cranial injury, it is probable that there are cerebral lesions on the other side produced by *contre-coup*, hence interference will be undesirable.

4. Even if a cranial injury be directly over excitable convolutions, if the resulting paralysis or convulsions be accompanied by marked anæsthesia, an opera-

tion cannot be expected to do much good, because the presence of anæsthesia makes it highly probable that the white substance of the hemisphere (posterior half or third of the internal capsule) is involved in the lesion.

5. A favorable indication for trephining is when aphasia supervenes immediately, or in a few weeks after an injury to the skull in the region of the left third frontal convolution (see Fig. 10). It is extremely likely, in the first case, that a clot or spiculum of bone will be found compressing or lacerating the centre for speech; in the second, that an abscess has formed in the same part (Broca's case).

6. Another combination of symptoms which makes an operation desirable, and holds out a hope of its being successful, is when an injury to the skull over the fissure of Rolando on one side is accompanied by slight hemiplegia, or by paralysis of the face, or arm, or leg, or of any two of these parts combined, on the opposite side of the median line, without anæsthesia. Under such circumstances, the probabilities almost amount to certainty that the centres for (see Fig. 9) the face, arm, and leg are separately or collectively involved in the lesion (cases of Proust and Lucas-Championnière).

7. A contra-indication to operative interference, even in apparently favorable cases, would be symptoms of basal lesions, such as palsy of cranial nerves, neuro-retinitis, Cheyne-Stoke's respiration, and vomiting.

*Addendum.*—A number of corrections to the propositions in these lectures have been suggested by my friends, or have occurred to my own mind, but I believe that only one is worth inserting here. The other corrections and additions are right enough in a theoretical sense, but as I have tried to adhere to my rule of making no statement which does not receive support from several sources, normal anatomy, pathological anatomy, and clinical observation, I prefer not to publish them.

The correction which I wish to make is to the paragraphs *a*, *b*, and *c*, in Lect. V., p. 103, descriptive of the crossed paralysis caused by lesions of the crura. It should be added in each of these paragraphs that the lower part of the face is usually paralyzed on the same side as the body palsy, *i.e.*, on the side opposite the lesion. In case of a lesion involving both crura, the two halves of the face will be parietic.

## THE GERM THEORY OF DISEASE, AND ITS PRESENT BEARING UPON PUBLIC AND PERSONAL HYGIENE.

A LECTURE DELIVERED BEFORE THE PHILADELPHIA SOCIAL SCIENCE ASSOCIATION, OCTOBER 17, 1878.

By JOS. G. RICHARDSON, M.D.,

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(Reported for THE MEDICAL RECORD.)

THE devastating epidemic of yellow fever now raging in some of our Southern States has called forth so much discussion in regard to the nature of this and kindred maladies, that few persons of culture have failed to hear more or less in the last six months of the germ theory of disease.

This hypothesis, of which for more than ten years I have been an earnest advocate, notwithstanding its unpopularity both within and outside of the medical profession, has, in consequence of some recent dis-



coveries, begun to be received into favor by many physicians, although many more still look upon it with distrust, if not with contempt.

Hence, without attempting to convert you all to a faith in the absolute truth of its tenets, I believe the time has now come for me to point out exactly what its doctrines are, to enumerate the chief facts which form their support, and to indicate the precautions which, if we admit it is probably true, wisdom enjoins upon us towards preventing the propagation and spread of disease.

In order to render myself clearly understood, I will begin by explaining, in the first place, that the germ theory of disease, which was originally propounded by the celebrated Linnæus, the father of botany, more than a century ago, but has since been somewhat modified by its successive advocates, professes to account for the phenomena of small-pox, yellow fever, typhoid fever, relapsing fever, measles, scarlatina, diphtheria, chicken-pox, erysipelas, etc., by attributing them to the more or less mechanical irritation and other disturbances set up by masses of spores and mycelial threads developing in the blood and in the affected tissues. The period of incubation or hatching out (by which is meant the time between exposure to small-pox, for example, and the development of the complaint) is supposed to correspond with that required for the germination of these spores or seeds of the fungi. The gradual increment of the symptoms is attributed to the growth of the millions of minute fungoid plants, whose period of greatest luxuriance marks the acme of the attack, and the death and destruction of which correspond to the decline of the disease.

The contagiousness of the communicable maladies is accounted for very beautifully by the existence of the immense number of spores (the true seeds of disease) constantly produced in, evolved from the affected individual, and carried through the air of a room or house, either alone or attached to some of the innumerable epithelial cells which are constantly being rubbed off by millions from the surface of our bodies.

The general absence of second attacks is admirably explained by the hypothesis that the parasitic fungus on the first occasion has exhausted all, or nearly all, of some peculiar (unknown) organic ingredient in our bodies, which is absolutely requisite for its support, according to the very same law that will, as every farmer knows, cause his wheat to fail if he plants it repeatedly in the same ground, and neglects to secure a due rotation of crops.

At the outset of my plea in favor of this doctrine, let me say that, in spite of the bold assertions of certain enthusiasts and savans with whom zeal outruns knowledge, no really skilful microscopist will at present maintain that minute vegetable organisms found in connection with contagious maladies are as yet *proved* to have any definite relation to them as causes of disease.

Nevertheless, the presumption that such causal relation does exist is, in my opinion, so strong that I intend to ask you to accept (as far as is readily feasible) my judgment that it will be proved in the near future, and I therefore seek in this brief address to popularize the conception that contagious diseases are conveyed from one person to another by the transplanting of microscopically visible spores or seeds, which have a separate vitality of their own, each after its kind, and which are to be escaped just as we would escape hordes of animals or swarms of insect pests, by shutting them out or killing them off, before they can succeed in fastening upon our bodies.

All true philanthropists must, it seems to me, desire that humanity should benefit by this knowledge, even at the present hour, although the conservative opponents to the germ theory, whilst evidently wavering in their defence, are not yet driven into the last ditch on this side of complete surrender.

I believe, as I wrote some years since in regard to favus, a parasitic skin disease of children, "we see to-day the same old battle fought (in regard to this skin disease, and also to small-pox, diphtheria, and their cogeners) which fifty years ago was so strenuously contested by Bielt and Morgagni on the one hand, and the microscopists on the other, in relation to scabies or the itch, at present universally admitted to be due to a minute insect, the *acarus scabiei*; and to the student of human nature it is a most interesting confirmation of the wise king's dictum, 'there is no new thing under the sun,' to observe how the same doubts, followed by the same objections, were urged against the parasitic character of the itch that are now put forward in opposition to the vegetable nature of the cause of ringworm or favus. Thus, Bielt, Caze-nave, Lugol, etc., denied *then* that even with the aid of microscopes of high power any insect whatever could be discovered. When, by a succession of lucky accidents, so many observers blundered into seeing the insect, that this position was no longer tenable, opponents to the parasitic theory changed their base of operations, and, admitting the occasional existence of the *acarus*, stoutly maintained that, instead of being the cause of scabies, it was a secretory product of that affection, and by no means a constant one. Finally, when proof that the whole disease could arise from the deposit of a single itch insect upon the skin of a previously healthy person became incontestable, the anti-microscopist took refuge in the assertion that in such cases 'the insect taken from the scabious vesicle, being charged with the virus, the fluid of the vesicle, by penetration of the cuticle, inserted this virus, and produced the disease,' as the inoculation of cow-pox is accomplished."

One of the strongest arguments against the doctrine that living germs can enter into the human organism from the alimentary canal is that derived from the *a priori* probability that the solvent action of the gastric and intestinal juices must destroy all vitality in the microscopic organisms which, on this hypothesis, constituted the morbid matter, the contagium vivum of disease. A fundamental step towards establishing the germ theory, therefore, was manifestly by proving that bacteria or analogous low forms of life could penetrate from the stomach to the blood, to be thereby carried into all parts of the system, and this I was, I believe, the first to demonstrate. My observations were detailed in the *American Journal of the Medical Sciences* for July, 1868, from which I extract the following as the most important:

"Experiment 4th.—At 7.45 PM., May 17, 1868, I drank four fluid ounces of water similar to that employed in the preceding investigations and containing multitudes of bacteria, estimated as numbering 27,000,000,000. At a quarter past eight I examined a drop of blood drawn with the aid of a cataract needle from the tip of my finger and confined between a slide and cover cleaned with strong hydrochloric acid. Under the field of the one-twenty-fifth inch objective, the interspaces between the rows of blood-corpuscles were found to contain multitudes of apparently spherical molecules in rapid and erratic motion, but so very minute as to readily escape notice, even with this high power, except under the closest scrutiny; in the course of half an hour not less than



one hundred were observed. At 9 P.M. another drop of blood examined with the same precaution exhibited, in addition to these minute particles, other bodies less active in their movements, of much greater magnitude, and which, under an amplification of 1,100 diameters, appeared precisely similar to the bacteria I had been studying a few hours before in the identical decomposing beef-juice imbibed. Five of them were thus enlarged so as to exhibit an unmistakable organized structure totally different from their associated aggregations of Beales' germinal matter. Three of these bacteria were each about  $\frac{1}{12,000}$  of an inch in length, and  $\frac{1}{25,000}$  of an inch in width, very distinctly constricted in the middle; a fourth was obviously composed of four, and a fifth of six joints, arranged in a straight line, the motion of which was of that peculiar waving character so universal among the oscillatoriaceae. The last two were most clearly visible when they happened to lie vertically to the surface of the glass, and would probably escape observation under the one-eighth inch except in that position, or be therefore mistaken for simple globular bodies, although in several cases I detected in the second and third experiments (with a lower power) a shadowy elongation of one diameter of the revolving molecule thus observed."

These results of mine were corroborated soon after by the researches of Dr. Neftel, of New York, upon some of the inferior animals, in regard to which he informs us (N. Y. MEDICAL RECORD, July 15, 1868, p. 226): "My experiments so far lead me to the conclusion that the lower vegetable organisms can continue to live and multiply in the tissues of living animals, and that they can enter into the general circulation either through the intestinal canal or respiratory organs, or by means of hypodermic injections. What is their ultimate fate in the animal organism, and what their importance in producing disease, further investigation will have to show."

M. E. Semmer, in Virchow's Archives, April, 1870, in his paper on the "Results of Injection of Fungous Spores and Fungous Cells into the Blood of Animals," gives additional corroboration of the conclusions to which I arrived by personal experiment.

Notwithstanding these and other investigations, the germ theory of disease made but little real progress, at least in English-speaking countries, until about three years since, when the researches of Prof. Burdon Sanderson and E. Klein, of London, as set forth in Mr. Simon's Report for 1874, as Medical Officer of the British Privy Council, commanded much professional attention, and doubtless led many who had previously ignored the theory to examine anew its claims to credibility.

In this report are endorsed the next two great steps towards the establishment of the germ theory, namely, the experiments of Oertel and Wassiloff, who showed that if the cornea of a rabbit is lightly pricked with a needle that has been thrust through diphtheritic false membrane, the wound does not heal up as similar tiny punctures with clean needles do, but becomes in a few days the centre of radiating streaks of brownish opacity, which, under the microscope are seen to be made up of colonies of the vegetable spores (micrococci) of diphtheritic disease. The other important step was the detection by Obermeier, of Berlin, of a minute fungoid growth (spirillum) in the blood of patients suffering with relapsing fever, a fact which Prof. Stricker, of Vienna, whose world-wide fame as a most skillful microscopist renders his testimony conclusive, told me only a few weeks ago he had fully confirmed.

These and other researches led Dr. William Roberts, of Manchester, England, in his annual address before the British Medical Association last year, to assert that the germ theory of disease "is now established upon a firm experimental basis, and if fairly grasped in capable hands, will very soon give us most important aid in our struggle with disease." And a recent eminent German writer on Pathology, Prof. Orth, late of Berlin, now of Göttingen, declares: "Of all the modifications which the blood undergoes, the least understood, and at the same time the most important, is unquestionably that which is due to the admixture with low organisms. Recent researches leave no doubt whatever that in some diseases the blood contains during life, though to a far higher degree after death, certain low forms of animal or vegetable life. Those organisms which have a thoroughly characteristic appearance can be detected without any great difficulty with very high powers, provided the layer of blood which is examined be very thin, or that the red corpuscles have been destroyed with acetic acid or alkalis."\*

The latest, and perhaps most important, advance towards actual proof of the germ theory has just been made by my friend, Prof. E. Klein, F.R.S., of London, who, in a series of admirable investigations, partly communicated to the Royal Society in February, 1878, shows that a kind of bacterium found in the peritoneal exudation of pigs affected with a disease sometimes called typhoid fever (but more properly entitled pneumo-enteritis contagiosa), may be cultivated in different fluids outside the animal's body for eight consecutive generations, and then produce the original malady in healthy animals upon which it is innoculated.

The daily success of Lister's antiseptic method of dressing wounds, now firmly established in the London and many of the Continental hospitals, is a further and almost unanswerable evidence of the infective power of germs, and the wonderfully lucid explanations and ingenious experiments of Prof. Tyndall have done much to enable all to realize the intimate relation which exists between dust (which consists largely of germs) and disease.

It may not be amiss, before leaving this part of my subject, to reply to an objection which has been frequently offered to observations upon bacteria met with in connection with various diseases, namely, that such organisms, apparently quite identical, are often detected in absolutely healthy animals, and therefore cannot be causes of disease. Those who urge this argument, however, seem to forget that since the bacterial spore and rods are only the analogues of the seeds and roots of larger plants and by no means entire organisms, it is, therefore, no more reasonable to expect us to distinguish the bacterium which develops into the cause of yellow fever, for instance, from that which produces simple putrefaction, than it is to demand we should discriminate at sight the root and seed of a choke pear from those of a Seckel. In either case it may be only by cultivating the plant to its full perfection and testing its ripe fruit that we can determine its place in nature.

Abandoning, however, as I said before, all claim at present to certainty that the germ theory of disease is true in every detail, let us consider what modification

\* Dr. Orth describes the gray coating on wounds affected with bacterial gangrene, and lining the uterus in puerperal fever, as being made up chiefly of micrococci and bacteria. He also asserts what long ago believed and taught, that in metastatic abscesses, and probably in carbuncles and boils, the starting-point of the slough which forms the core is found in a small artery plugged up by a little wadding mass of micrococci or fungous spores.



of the ordinary sanitary precautions we can wisely adopt in view of the probability that bacteria or closely allied organisms are the actual causes of constitutional diseases.

In the first place, it seems to me that great benefit would result from its being understood by every man, woman and child that the contagion of small-pox, yellow fever, typhoid fever, scarlet fever, measles, diphtheria, cholera, etc., is probably composed of exceedingly minute seeds called spores, so small that a mass the diameter of one of the dots or periods (.) upon a printed page might contain over 50 millions.

Each one of these 50 millions of seeds is capable under favorable circumstances of reproducing its kind with almost inconceivable rapidity, so that supposing, for example, the zygodesmus of Prof. Letzerich is really the morbid agent causing diphtheria, a particle of the grayish false membrane which appears in the throat of patients ill with this complaint, although no bigger than the dot just mentioned, might contain separate seeds enough to infect every inhabitant of the whole continent of North America with diphtheritic disease.

The obvious deductions from these facts tend to strengthen the urgent recommendations of sanitarians that every effort should be made: 1st, to prevent these morbid germs from being let loose upon the world, and, 2d, when they have made their escape into the *free* air or water, to destroy all spores likely to come in contact with unprotected persons, that is to say, human beings, from whose bodies one crop of small-pox (or cow-pox) fungus, yellow fever bacteria, relapsing fever spirillia, etc., have not already been issued.

Each individual affected with small-pox or any other of the diseases above mentioned is according to his theory to be looked upon as a sort of *hot-bed* or forcing-house for the seeds or spores of that malady. From his or her body are continually given off in all directions by the skin, the breath, the perspiration, and the other secretions, millions of spores, of the extreme minuteness I have described, each one of which, if it were received into a human system under favorable circumstances, would rapidly reproduce itself and after a few days or weeks (corresponding, as already stated, to what is known as the period of incubation) give rise to a new case of the disease again—a new hot-bed of contagion for other unprotected organisms.

Now these pores, just like the seeds of larger noxious weeds which when allowed to gain a foothold in our fields and gardens propagate themselves with such immense rapidity, have no power to move of their own accord, and can only develop if they meet with air, moisture and congenial soil suited to their peculiar requirements. That is, if a small-pox patient is shut up in a germ-tight room so that the seeds cannot escape, or if whilst in the open air that air is stagnant so that no seeds are wafted away from the immediate neighborhood of the individual, or if when carried along by the wind they are blown away from any human habitation, are desiccated in a dry atmosphere, baked by the sun's rays or by artificial heat, frozen by extreme cold (as seems to be the case with yellow fever germs), or, finally, if they happen to meet with no persons but those who have had small-pox or been sufficiently vaccinated, in other words, if they do not "fall upon good ground," all this wealth of provision by which nature tries to secure this perpetuation of the poisonous plant causing small-pox in our systems proves unavailing and her malevolent design against

our race, carried out with such a multitude of murderous weapons, utterly fails.

This brings me to a notice of one of the most mischievous popular errors which a general acceptance of the germ theory would necessarily subvert, namely, the belief that small-pox and other contagious maladies often arise without previous exposure to the seeds of disease. This doctrine, frequently advanced in private life as an excuse for neglect of proper care and caution in regard to children, etc., and occasionally sustained by public authorities as an apology for violation of quarantine and other sanitary regulations, is exceedingly pernicious, and our warmest gratitude would be due to the germ theory of disease, even should its establishment render no other service to humanity than the explosion of this fallacy. The fact is, as I firmly believe, that (inverting the scriptural aphorism) we can as little gather thorns from grapes or thistles from figs, as we can be troubled, for instance, with germs of yellow fever growing from clean cotton, or those of cholera developing from uninfected rice.

Putting aside the primary origin of diseases, which, with one or two doubtful exceptions, is a question of prehistoric time, the germ theory teaches us that every new case of the contagious maladies already enumerated is the immediate offspring of a preceding case, and the direct result of exposure of an unprotected human being to the chance of having the spores or seeds of disease implanted in its system, *an exposure which it only required sufficient knowledge, sufficient foresight, and sufficient care to avoid.*

In all such instances, indeed, isolation from unprotected persons, carried out with every due consideration and kindness, is therefore to be practised, if possible, and, under other conditions, means which will destroy the life of the spores, such as dry heat of high degree, superheated steam, prolonged boiling in water, caustic acids, or alkali, etc., are to be used with a firm confidence that if they are employed thoroughly enough they will absolutely put a stop to all spread of the disease.

A very important suggestion in regard to the use of disinfectants, arising from our knowledge of the germ theory, is that since these spores doubtless float in the atmosphere, as do the seeds of the thistle or dandelion, and are no more susceptible to the action of chemicals with which the air containing them is impregnated, it is useless to expect any certain and complete result from the milder aerial disinfectants as usually employed, that is, by scenting the medium in which they are suspended with carbolic acid, camphor, acetic acid, and similar non-corrosive agents.

As to the lesson we may deduce from these teachings in regard to public hygiene, I think its importance is only surpassed by its simplicity. For such contagious and infectious maladies it is: *Avoid at any cost the entrance into communities of living spores, or seeds of disease.* And this should be insured, not as in former times, with the mere hope that somehow we might escape the visitation, but with the absolute certainty that with proper care infection cannot occur. No doubt many of us have smiled at the story of certain terror-stricken authorities in a German town, who, when a single potato bug was discovered in a field near them, immediately covered the whole plantation with straw soaked in kerosene, and setting fire to it, destroyed every vestige of animal and vegetable life for acres around. And yet, if we consider a moment, we realize the fact that this apparent waste of time, trouble, and potato-vines was the wisest and

most economical expenditure that could possibly have been made.

How much more, then, when our own lives and the lives of those that are dear to us, in addition to scores of millions of dollars, are at stake, as they are now in the South, should sanitary authorities be armed with almost despotic power, in order that they may shut out or kill every one of those actually visible, or even tangible, seeds of disease. Quarantine, disinfection, and prolonged detention of persons, with disinfection or frequently total destruction of goods from infected districts, is, it appears to me, the *right* of the many at the expense of the few; and even if, as I should advocate for the sake of strict justice, ample compensation for loss of time and loss of property were allowed by law to those who suffered, I believe the community at large would be tenfold better off pecuniarily, to say nothing of the far more important saving of human life and human suffering, which would be secured.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### NOTES OF TREATMENT AND PECULIARITIES IN PRACTICE.

##### THE TREATMENT OF TYPHOID FEVER.

In looking over the records of cases of typhoid fever in Bellevue Hospital, the wide variety of treatment is quite noticeable. Even in the past eight years the gamut of therapeutics has been quite well run through, reaching from ninety grains of quinine a day and baths every hour to simple expectancy with milk and egg diet. Considering the class of cases, the results have been satisfactory as regards final cure, and seem to show this at least very clearly, that the system in typhoid fever is quite tolerant of tentative therapeutics.

As the treatment of this disease, so far as active measures are concerned, is still far from being settled, some examination of the cases at Bellevue may not be uninteresting.

The patients are chiefly laborers and domestics, and have been healthy and hard-working persons. Most of them are found to have been living in poorly ventilated, crowded tenement-houses, and they often give a history of there being stinking sewers or water-closets, or bad smells in the vicinity. Very rarely another case of typhoid fever has been in the same house or family. Sometimes the disease has originated in the hospital. In one case the patient had been lying in a bed by the entrance to the water-closet. In another she had been for over a week in the cells for female alcoholic, hysterical, and insane patients. The cases are brought in, or oftener walk in, at about the sixth or seventh day of the disease. They have been trying to keep at their work, and have been living on ordinary diet.

They are put to bed, and papules appear on the next day. Within the last two or three years the only precaution taken against contagion is to disinfect the stools. This is done generally with sulphate of iron, which is placed in the bed-pan previous to its being used. Commercial muriatic acid diluted is poured into the pan after the passage. The stools being disinfected, no further attempts at protecting the household, nurses, or other patients are employed. The old

idea that there is infection and danger in the patient's breath is disregarded, if at all believed in. The house physicians examine the lungs for evidences of pneumonia or bronchitis several times a week, they bend over the patients in examining the tongue and abdomen, and must inevitably inspire some of the patient's exhalations. No case of typhoid fever has occurred among the staff for several years.

The class of cases is in no respect unique as regards symptoms. There are mild and severe forms; there are obstinate diarrheas; there is uniform constipation; delirium so wild as to oblige transfer from the wards; temperatures running to 106° and 107° or keeping as low as 102° and 103°. It is not often that the initial temperatures can be obtained. In cases where they have been, there has been no such characteristic rising as is described by Wunderlich and the German observers, though there is often a gradual rise in the first week.

The treatment at present in vogue is that of quinine and baths. This was begun four or five years ago, and has received such favor that it is quite the routine now. The quinine is given differently. Perhaps the most popular way has been ten grains two or three times a day, the evening dose being doubled if the temperature rises above a particular height, say 105°. It sometimes causes gastric irritation, being given in powder form. If it is vomited, pills are tried, and finally double doses by rectum. Quinidia was used for a short time, and it reduced temperature like quinine, but irritated the stomach more. Baths in every shape are used, but the sponge-bath is the form most adopted. The patient's temperature is taken; if found above a certain height, he is stripped either entirely naked, or perhaps only the upper half of the body. He is then sponged over with water at a temperature of from 60° to 80°. If only half the body is uncovered at a time, that part is allowed to dry and it is then covered and the rest of the surface sponged. This process is kept up for fifteen minutes. If that is insufficient to reduce the temperature, it is prolonged to half an hour. It is repeated every one, two, or three hours, according to the result obtained. At the end of the bath a little whiskey is generally given.

The effect of the quinine on the temperature is to reduce it slightly in a considerable number of cases. Its effect on the patient is to produce nausea, and vomiting in a smaller number. Its effect on the disease we will consider later.

The sponge-baths are almost always pleasant to the patient, if not too frequently repeated. If given every hour, or two hours even, they seem to weary and annoy him. They certainly reduce the temperature in most of the cases. In a small number of these the reduction seems to last for many hours. Sometimes two or three baths given in the afternoon and evening reduce the fever two or three degrees, and it keeps down for twelve hours. But it is not very rare that the baths are given every hour even, without producing very marked effect. The sponge-bath is a much more efficient antipyretic than quinine. The wet pack is hardly used now. In one case where it was employed pneumonia complicated the disease. The plan of placing the patient in water at a temperature of 98°, and then gradually lowering it, has been tried a number of times, and so far no deaths can be traced to it. In this respect the result differs from the application of the same therapeutic agent to pneumonia. Cold baths kill Americans when they have that disease. But these gradually-cooled baths are uniformly annoying and depressing to the patients. They



don't like them. Neither have they been proved to reduce temperature permanently any better than the sponge-baths do.

Several cases were treated this fall upon the Kibbe bed. Its action and effectiveness were similar to immersion in the bath-tub. It did not eliminate the fever from the disease, nor were the patients pleased with the moist luxury of its antipyretic appliances.

The use and value of cold water and quinine are quite uniformly taught at the Bellevue Hospital clinics, and the students there assembled probably go away in the belief that with a moist sponge and quinine pills the mortality rate of their typhoid cases will be wonderfully lessened. There is nothing in the statistics of the cases that have been thus treated at Bellevue Hospital to warrant such confidence.

The antipyretic treatment began to be popular in 1873, and it has gradually become more uniformly adopted in the wards since then. In 1873 and 1874 there are records of twenty-three cases. Of these, three died, or about thirteen per cent. Of those that died, two had a regular antipyretic treatment of quinine and baths, and one of them died from hemorrhage. The third had quinine only, and died from a complicating pneumonia. Of the cured, eleven had only mineral acid or some refrigerant drink; five had quinine in antipyretic doses and three had both quinine and baths. This record does not prove much in favor of the new treatment.

In 1877, and up to October, 1878, there are records of thirty-eight cases with fourteen deaths. Three of the fatal cases were brought in either moribund or so exhausted by previous neglect that they should not be reckoned in the percentage of mortality. This would then be twenty-nine per cent. Of these thirty-eight cases, thirty-four were treated antipyretically, twenty by quinine and baths and fourteen by quinine alone. Of those who died four had hemorrhages and one perforation; the rest died from paralysis of the heart. Of twelve cases found recorded in the year 1868, all were cured. The treatment was expectant, with perhaps a mineral acid or spirits mildereri.

At the Massachusetts General Hospital, from 1828 to 1836 inclusive, there were two hundred and nineteen cases, of whom thirty-one died, or about fourteen per cent. The percentage given for the hospital at other times, and previous to antipyretics, is thirteen.

At Bellevue Hospital, in the years 1868, 1873, 1874, 1877, and 1878, there were seventy-three cases. Of those treated antipyretically, twenty-four per cent. died; of the others, twelve per cent. died. Out of this seventy-three, of the seventeen that died, five had hemorrhages, two perforation, three were brought in moribund and are not reckoned in the percentage, while one had a double pneumonia. Of these seventeen there were six who had no antipyretics applied; one of these had a hemorrhage. Of the other eleven, four had hemorrhages, two perforations, one a double pneumonia. In September last two cases were treated successfully on Kibbe's bed.

It will thus be seen that since the introduction of antipyretic treatment into Bellevue Hospital the percentage of mortality has doubled; and further, that the mortality is nearly twice as great as the averages given by Jackson and Murchison. We do not, however, place any overestimate upon the value of these statistics; but at their very lowest it seems reasonable to assume that they do not prove the value of the antipyretic treatment.

The theory of this treatment, as is well known, is based on the belief that eighteen or twenty days of an average temperature of  $104^{\circ}$  will cause degeneration, and

possible paralysis of the heart, or a like effect upon the brain. Also upon the belief that the frequent and energetic abstraction of heat will at length reduce the quantity generated. As regards the first point, it is perfectly well established, that a human being, with the digestion not seriously impaired, can live for five weeks at a temperature of  $104^{\circ}$ . Those who have watched cases of catarrhal phthisis, with a high temperature for months, must wonder how only ten days of the extreme temperature of typhoid can be so very pernicious. It may be that caloric is proportionately much more vicious at  $106^{\circ}$  than  $104^{\circ}$ , and that digestion and assimilation are much more impaired. We are not attempting to refute antipyretics, but only to show that, perhaps, in America its value is not proven.

Niemeyer expresses much delight at the discovery of the gradually cooled bath. Wet packs, he admits, while they abstract heat, increase its production also. On the contrary, the baths, he asserts, not only abstract heat, but reduce the production thereof. How they achieve this marvellous superiority he does not explain; nor have we been able to find any one who could make it clear. Practically, the baths are as exhausting as the wet packs. The percentage of relapses, it is not denied, may be increased by their use. In the only case with relapse among the seventy-three at Bellevue, baths and sponging were most energetically used. The possible increase of danger from intestinal hemorrhage is also admitted by the Germans.

Of twenty-four cases treated at Bellevue by baths and quinine both, two had hemorrhage. Of fifteen cases not having antipyretic treatment, one had intestinal hemorrhage.

The antipyretic treatment of typhoid fever by baths and quinine, then, has not been proven to be of certain therapeutic value in one large American hospital, and as no small number of students carry away many of their therapeutic beliefs from clinics in that institution, we think it not improper to state the facts which may lead them to suspend their judgment for a while.

In our reading and recollection of the cases at the hospital, it has seemed that quinine and its possibly attendant emesis are not proven to be necessary. It does reduce the temperature in some cases, but generally in those where the disease is mild and the reduction not necessary. As for the baths, as long as sponging off the surface is grateful to the patient, it is useful in the disease. The further and more energetic use of water, then, has yet to be shown of value, in all ordinary cases. The employment of mineral acid and of symptomatic remedies is sufficient.

#### THE USE OF JABORANDI AT BELLEVUE HOSPITAL.

Within the past year or two jaborandi has become a very popular and useful drug at Bellevue. In uremia and in acute and chronic parenchymatous nephritis, it has accomplished especially good results.

In uremia it is a very effective substitute for the old hot air bath, acting more quickly and surely. As it has been shown to increase markedly the excretion of urea, it is probably more efficient also than the baths in relieving uremic phenomena. A patient was brought into the hospital some weeks ago, suffering from convulsions and delirium. She had no oedema, but her urine was nearly solid with albumen, and contained small casts and blood. She was given a drachm of the fluid extract of jaborandi, hypodermically, and  $\mathcal{U}x.$  of Magendie's solution. In fifteen minutes she was sweating profusely, and the convulsions had ceased. She was restless and wandering in mind for



the next twenty-four hours, but had no other bad symptoms. A drachm of jaborandi was given every other day subsequently, and in a week the albumen had nearly disappeared from her urine, and she felt quite well.

Cases of chronic nephritis have been treated with the drug very satisfactorily. Some who did not improve or get rid of the œdema under digitalis and potassium have shown immediate improvement under jaborandi. It is given in drachm doses every other morning, the patient being kept in bed until dinner-time, when the sweating is over. It is better not to give it at night, as the bed-clothes become saturated with perspiration and sleep is disturbed and uncomfortable.

Jaborandi weakens the heart. It is dangerous when the pulse is poor and the system debilitated. If given to a patient in this condition with uremia, he falls into a cold perspiration, and œdema of the lungs, coma and death follow.

Yet it has been used several times in the treatment of pulmonary œdema in doses of ℥x. to ℥xv. every one or two hours. The autopsies have shown the usual changes.

It has been used also in pleuritic effusions, but does not seem to "sweat out" the intrathoracic liquid very much. Besides, it produces a nausea and salivation not at all pleasant.

The drug loses its effect in some cases, and the dose has to be increased. The usual variety in its action has been noted. Sometimes it causes salivation only; most frequently salivation and diaphoresis. If the dose is carefully regulated, nausea and vomiting need not be a frequent complication. The urine is, in cases of chronic Bright's disease somewhat diminished in amount, unless renal congestion or an acute nephritis is complicating the case. Jaborandi has proved, so far, of most certain service in the chronic stages of Bright's disease and in uremia brought on during its initial attacks. When an acute attack is lighted up on a chronically inflamed organ, and when the system has already become weakened and anæmic, the drug may be useful, but it will also be dangerous.

## Progress of Medical Science.

**SPAYING FOR FIBROID TUMORS OF THE WOMB.**—The removal of the ovaries for the production of the menopause has been again brought prominently before the profession by Goodell, in an article entitled, "Spaying for Fibroid Tumor of the Womb." The growth of these tumors, he says, and their morbid effects, are notably increased at each monthly flux, and notably diminished after the climacteric. Now, by the removal of the ovaries, the menopause is artificially produced, the sexual and periodic congestions of the womb lessened, and the blood rations of the growths shortened, placing the patient in the most favorable circumstances for the further treatment of the disease. Clinical experience has so far demonstrated the correctness of this logic, for the five cases collected have been followed by satisfactory results. Of these five cases, one was reported by Prof. Trenholme, of Montreal; two by Prof. Hegar, of Freiburg; one by Prof. Nussbaum, of Munich; and the fifth occurred in Dr. Goodell's own practice. In all the cases the operation was followed by the establishment of the menopause, the cessation of the pain and hemorrhages, and subsequent decrease in size of the

tumor. Since this operation was first introduced by Battey, it has been performed thirty-three times, with eight deaths. In sixteen cases the organs were removed by the abdominal incision, with six deaths; in seventeen, by the vaginal incision, with two deaths; and this latter route Dr. Goodell recommends as the safer, adding that, should it be attended by failure, a resort to the former is always open, the abandoned vaginal incision being utilized for drainage. That the removal of both ovaries is not always followed by the change of life, Dr. Goodell cites twenty cases to prove; but seventy-eight cases, probably a very imperfect list, show that such change is the rule. The operation is but seldom followed by a loss of sexual appetite.—*American Journal of Medical Sciences*, July, 1878.

**A NEW NERVE.**—In a communication to the French Academy, Cyon claims that the eighth pair of cerebral nerves contain two nerves of entirely distinct senses—the auditory and the nerve of space (*Raumnerf*). He considers the latter the source of all our ideas of extension, and of the three dimensions of space.—*The Doctor*.

**CHLOROFORM NARCOSIS.**—Wachsmuth, of Berlin, asserts that much of the danger from the administration of chloroform may be averted by adding to it twenty per cent. of oil of turpentine, which, he says, stimulates the lungs, and thus protects them against the great enemy of chloroform narcosis—pulmonary paralysis.

**A CASE OF HYSTERICAL HÆMOPTYSIS.**—At a recent clinic in the Pennsylvania Hospital, Prof. da Costa presented a woman with the hysterical diathesis, who had suffered from cough at various periods, but particularly during the preceding six months, and had had repeated pulmonary hemorrhages, on one occasion raising, it is stated, nearly a pint of blood. There was some consolidation without softening at the right apex, but otherwise the lungs were normal. The Professor believed the case to be one of hysterical hæmoptysis, basing his diagnosis on the presence of the hysterical diathesis, the irregularity of the menses, the even temperature record, and the absence of expectoration, except at the time of the bleeding. The consolidation at the right apex was, in his opinion, of inflammatory origin, and he confidently expected that it would disappear under treatment by chalybeates, good food, rest, and blisters.—*Medical and Surgical Reporter*, July 13th.

**ANEURISM OF THE INNOMINATE ARTERY CURED BY TUFNELL'S METHOD.**—In July, 1877, a gentleman, while calling on Dr. Head, of Dublin, mentioned that he had a dusky spot, about the size of a five-shilling piece, on the chest below the right collar-bone. On examination a distinct pulsation was detected over this spot, and although there was no bruit, no double impulse, and no evidence of pressure on the trachea or the recurrent nerve, the diagnosis of aneurism of the innominate was made. The patient had suffered a good deal from neuralgia in the back and shoulder during the preceding two years, but at the time of the examination complained of little or no pain, except a burning sensation. The impulse slightly preceded the apex-beat of the heart. The patient was at once subjected to Tufnell's method of treatment, which consists in the horizontal posture, absolute rest, and a minimum of liquids, the food consisting as much as possible of solids, so as to diminish the quantity of blood, and at the same time keep up its healthy condition. No medicine was



given, except occasional small doses of aconite when the heart was beating too fast. The recumbent posture was faithfully maintained from the last week of July to the middle of October, when the patient showed signs of great restlessness, and was, in consequence, allowed to get up. Soon afterward he became sleepless and fell into a state of great mental depression, in which he terminated his life by throwing himself into the Liffey.

At the autopsy a solid tumor was found occupying the entire mediastinum, and firmly attached to the under surface of the sternum and the cartilages of the first and second ribs. The heart was slightly enlarged and flabby; the wall of the left ventricle was thin, and the cavity a good deal dilated. The aorta was very atheromatous, and dilated to an extent almost amounting to true aneurism. The original aneurism occupied almost the whole of the arteria innominata; its sac was filled with firm, closely laminated layers of fibrin, which were as thin as sheets of paper. At the back of the aneurism the vessels were pervious. Three or four inches farther down the aorta there was another small aneurism, the size of a walnut, which was also almost filled up with fibrin.—*Canada Med. and Surg. Reporter*, August.

ON THE TREATMENT OF ACNE BY THE INTERNAL ADMINISTRATION OF SULPHIDE OF CALCIUM.—Dr. Howard Cane, of London, states that he has had very gratifying success with the sulphide of calcium in the treatment of acne. He tried it first as a *dernier ressort*, because he knew that most, if not all, of the remedies commonly recommended for this troublesome affection must have been tried. The patient, a young lady, aged nineteen, had been troubled for five years with acne of the most severe kind, and during that period had been almost constantly under treatment, the disease becoming progressively worse. Her face, especially the forehead, was thickly covered with acne spots in all stages of development, the inflamed and suppurating papules being very numerous. The eruption was so thick that she was obliged, when out, to wear a veil, and it precluded her from entering society to any extent. Dr. Cane prescribed the sulphide of calcium in doses of one-tenth of a grain four times daily, with four grains of powdered loaf-sugar. At the same time he directed her to hold her face over a vessel of very hot water night and morning for some ten minutes or more, and then to rub the parts where the comedones were very thick with a towel, after which she was to apply a face powder of precipitated sulphur, colored with Armenian bole. He also regulated the diet, forbidding pastry, salt meats, stimulants, etc., and enjoining fresh, green vegetables and exercise in the open air. At the end of a fortnight there was some improvement, and the sulphide was prescribed six times daily. Subsequently the dose of the sulphide was increased every fortnight, until at the end of three months she was taking a grain six times daily, the improvement being meanwhile rapid and constant. From that time no fresh spots appeared, but she continued to take the sulphide for two months longer, gradually decreasing the dose to one grain per diem. By that time the black-topped comedones had all disappeared, and the complexion was very much improved, the slight scars left, which were at first red, becoming pink. Eight months afterward no fresh spots had appeared, and the scars were rapidly fading in color.

In the second case the acne was also severe, but it had existed for only a year. The same diet and face powder were prescribed as in the above case, but the

sulphide was given at once in doses of one-quarter of a grain four times daily, and the dose gradually increased to a grain six times daily. At the end of six weeks the patient was nearly well, and in another month she was quite cured. She had taken the sulphide in all two months, gradually diminishing the dose during the last fortnight. Dr. Cane has also treated fourteen other cases in exactly the same way. The results in eleven of these cases were perfect, whilst in the remaining three, though great benefit was derived, the cure was not complete.—*The Lancet*, August 17th.

HEALING OF PIECES SEPARATED FROM THE HUMAN BODY.—Two cases occurred in the clinic of Dr. Maas, in which pieces separated from the body were replaced, and had united. In both cases the nose was the portion injured, and in both the epidermis sloughed off, leaving the rete malpighii exposed. The pieces were sewed on with fine sutures, between which strips of adhesive plaster were applied, and, over all, oiled silk and cotton batting, to prevent evaporation and maintain warmth. The two following rules are drawn: 1. The piece separated must be kept warmed to the temperature of the human body. 2. It must be replaced, whether with sutures or adhesive plaster, or both, directly the flow of blood ceases. The nutrition of the piece is supposed to be maintained by the speedy re-establishment of circulation through its vessels.—*The Cincinnati Lancet and Clinic*, August, 1878.

THEORY OF CONTAGIUM.—In a paper read before the British Medical Association, Prof. J. Lane Nottger gave a short *résumé* of the views held in relation to the spore theory of disease, and compared this with the chemical theory of contagium. To what may be termed the theory of solid particles, he does not object; but why, he asks, limit contagium so far? Why can it exist in no other form? Too much importance, he thinks, is attached to the coincident appearance of microscopic forms with certain diseases, ignoring purely chemical causes. Take, for example, a poisoned wound. If the bad consequences depended upon the introduction of such germs into the living body, one would say that more grave results would happen after sufficient time had elapsed to favor their further development; but this is notably not the fact, for we know that the virulence of the fluids is in proportion to their freshness, and, therefore, to their freedom from bacteria. In conclusion, he desires to impress upon all the necessity of persisting in their endeavors to rid the atmosphere of infective places of their chemical poisons, as well as of the spore or germ, regarding both as dangerous and injurious—calling in first Nature's great means, namely, diffusion, dilution, and oxidation, and supplementing these with aerial disinfectants, the action of which, though imperfect, is not to be condemned in the wholesale manner we have been accustomed of late to hear.—*British Medical Journal*, July 20, 1878.

THE MONOBROMIDE OF CAMPHOR AS A HYPNOTIC.—Fankhauser recommends the monobromide of camphor as a hypnotic in cases in which the narcotics proper are not borne, or in which they have lost their efficacy from long use. The doses required to produce sleep (he gives generally 2 to 2½ grains in powder) are entirely harmless; unpleasant effects—such as a feeling of fulness in the head, nausea, excitement—occur but rarely, and even then are only transitory. In most cases the drug is well borne, even though gastric catarrh, cardialgia, etc., exist. The hypnotic effect follows rapidly, as a rule; and in many cases, even when the drug has been used re-

peatedly, lasts for a considerable time. It other cases it passes off in a relatively short period. In some cases these small doses failed to produce sleep, but it is probable that larger doses would have been more successful. Three and three-quarter grains, and even more, have been given without injury.—*Deutsche Med. Woch.*

ON THE USE OF CARBOLIC ACID IN SURGICAL DRESSINGS.—Bryant saw severe collapse occur in two cases, as a result of the external application of carbolic acid. In one of these cases he had used a twenty per cent. solution of the acid in oil for a slight wound, and in the other a ten per cent. watery solution to dress a resection of the hip. Both cases recovered after the acid was discontinued; the urine soon became clear again. Hence he discards carbolic acid as a surgical dressing. Howse, however, claims that Bryant erred in using such strong solutions of the acid. He has himself used it for seven years in the proportions recommended by Lister (five to ten per cent. for carbolic oil, two-and-a-half to three per cent. for the watery solution used as an irrigating fluid), and has never met with any alarming symptoms. The discoloration of the urine, which appeared in some of his cases, disappeared without treatment, and without necessitating the discontinuance of the dressing. He does not consider it necessary to stop the use of the acid unless albuminuria should set in, in addition to the discoloration of the urine.—*Guy's Hospital Reports*, 1877.

INCUBATIVE PERIOD OF SCARLET FEVER, AND OF SOME OTHER DISEASES.—Dr. Murchison read an abstract of a paper upon this subject at a recent meeting of the Clinical Society of London. The article was based upon observations made in seventy-five cases, and extending over a period of twenty years. Observations upon the incubative periods of small-pox, varicella, measles (about ten days), whooping-cough, typhus fever (supplemental to observation published some years ago in the *St. Thomas' Hospital Reports*), enteric and relapsing fever were given, but with the result that in none of these diseases was the period of incubation fixed. The eruptive fevers in this respect fell, however, into two classes: one class comprised variola, varicella, measles, typhus, enteric fever, relapsing fever, mumps; these had a long period of incubation, whilst erysipelas, diphtheria, dengue, and scarlet fever had a short incubative period. The incubative period of scarlet fever is variously given, at from two days to one month, but Dr. Murchison published in the *Lancet*, in 1864, an analysis of twenty-three cases, in none of which did it exceed one week. The present paper comprised twenty-five cases, in two of which (cases of two children on shipboard), the incubative period was very short, in one not exceeding eighteen hours, in the other being less than twenty-four hours. In the well-known case at the West End, some few years ago, where guests at a dinner party were subsequently attacked by scarlet fever, there was no incubative period longer than five days. In fact, in none of Dr. Murchison's seventy-five cases was the period longer than six days; in forty-four it did not exceed four days, in sixteen it did not exceed two days, and in fifteen it was not over twenty-four hours. Dr. Richardson's personal experience, Trousseau's case, in which the incubative period was seven or eight hours, and other well-recorded cases of short incubative periods, were given. The conclusion drawn from these cases is that if a person, after exposure to scarlatinal infection, be subjected to a week's quarantine, and in that period shows no

symptoms of having been infected, he is safe. Dr. Murchison has adopted this rule, and has never known it to fail. With regard to the point whether it is possible for the patient to communicate an infectious disease during the incubative period, Dr. Murchison gave some instances of small-pox, which render it probable that such might be the case.—*The British Medical Journal*, June 29, 1878.

DANGERS IN THE USE OF TINNED FRUITS.—The following will be of interest, not only from the medical value of the suggestions thrown out, but also from the possible effects it may have upon a large and increasing branch of our national industries. It is taken verbatim from a communication to *The Lancet* of July 13, 1878, from the pen of W. N. Hartley, F. Inst. Chem., F.R.S.E.:

"Having lately had occasion to examine some liquid vomited during sudden sickness, with the view of detecting a poison of an unknown nature, either organic or metallic, I submitted it to a very complete chemical analysis. The absence of any poisonous alkaloid was proved by the method of Stas. Arsenic, antimony, and mercury were proved to be absent, as well by Reinsch's process as by subsequent operations. A small quantity of a brown metallic sulphide was obtained, soluble in sulphide of ammonium, and reprecipitable from this solution by acids. The actual amount of precipitate was inconsiderable, only sufficient, in fact, to cover a very small filter. It was impossible to attempt any quantitative estimation of this substance, but it was decided to put its identity beyond doubt. This was done by reducing the sulphide to the metallic state, by means of the blowpipe. The minute globules of metal, which could not have weighed more than a few thousandths of a grain, possessed the color, hardness, malleability, and other properties of metallic tin. The minute quantity found was that only which had escaped absorption by the system, and in all probability much less than the whole amount taken. Having no further information concerning the case, I cannot say decidedly what was the source of this metal, but I was previously aware that it is occasionally present in the juice of fruit preserved in tins, as, for instance, peaches. My friend, Dr. C. R. A. Wright, Lecturer on Chemistry at St. Mary's Hospital, informed me that he had detected it in the remains of a can of fruit, to the eating of which in a tart an attack of sickness was attributed. One of the students in the chemical laboratory of King's College—Mr. A. E. Menke—has lately been estimating under my direction the amount of metal present in two or three samples of tinned provisions. In the syrup from a tin of pineapple, of about a pint in capacity, there was found a grain of tin. In a large tin of apples, a little less than four-one-hundredths of a grain, and in the liquor from a tin of lobster, mere traces of the metal, were found. (See *Chemical News*, July 6th.) No information of importance concerning tin-poisoning has been recorded; hence it is difficult to say what quantity of the substance may be looked upon as dangerous. It will be advisable in future to throw away the syrup contained in fruit tins, and indeed the whole contents of every such vessel, the surface of which is at all corroded. Regarding the cause of the occasional solution of the tin, a careful examination has shown that at the point where the drop of solder seals the aperture made for the escape of steam during the preserving process, a galvanic action is set up between the lead of the solder and the tin of the tin-plate. A possible remedy exists in sealing the can with a drop of pure tin."



# THE MEDICAL RECORD:

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## THE ADULTERATION OF MILK.

THE Health Commissioners have applied for a fund sufficient to meet the expense of the appointment of two inspectors of milk, in addition to the one now in office. Not only the Board of Health but every physician in the city, must needs look with an especial interest at the coming Budgets of the Board of Finance. To many of those intimately acquainted with the sanitary condition of the city, especially of the lower and more densely-populated wards thereof, this effort on the part of the Board, in behalf of babes and pure milk, will appear very unsatisfactory, weak, and unavailing.

"Three inspectors to preserve the life, vitality, and nourishment of 150,000 children!" said an enthusiastic physician to me the other day. "Why, it will take a dozen capable inspectors to guard against the adulteration of milk—one of the greatest outrages of the day against our mild-mannered, long-suffering public."

But is the question really of sufficient importance to warrant the maintenance in office of even a single inspector? The whole question of the adulteration of milk has, of late years, assumed considerable proportions in this country, and has absorbed much attention on the part of physicians and sanitarians. In England, too, the question has received its quantum of discussion. The continental countries, which had not previously taken very much interest in the matter, are stirring, and Germany, hitherto, strange to say, the most backward of all, has at last become exceedingly active, and its sanitary authorities are now fully alive to the importance of the question, and many reforms are being extensively carried out which before were thought to be not only impracticable, but impossible.

When we consider the fact that of the 130,000 children in our metropolis under five years of age, nearly 15,000 die yearly, and that a large percentage of the deaths is due to intestinal disorders, the result of malnutrition, the conclusion is irresistible that the

question of the adulteration of milk is of the most vital importance—calling for the earnest attention and consideration of the medical profession. Every intelligent physician will admit that with the exception of pure, fresh air there is perhaps nothing which conduces so much to the health of the infant as does pure milk.

The experience of the Summer Visiting Corps of Sanitary Inspectors in this city has demonstrated indubitably that poor, watery milk is a very active cause both in producing infantile diarrhoeal disorders and in delaying recovery from an already existing attack. In addition to simple intestinal diseases, other affections may also be traced to the use of contaminated milk.

As early as the summer of 1873, Dougalls, of Glasgow, showed that milk very readily absorbs organic germs and that it also forms an excellent nidus for their proliferation.

Careful investigations into the origin of a number of epidemics of typhoid fever in England (the Marylebone epidemic is especially well known) leave very little doubt that they were directly due to the ingestion of milk which had been contaminated with the typhoid virus. The infection of the milk occurred either from direct adulteration with water which contained the typhoid germs, or from washing the dairy utensils with infected water. It is not improbable that this method of development of typhoid fever is even more frequent than at present suspected.

Again, epidemics of scarlatina are said to develop in a similar manner, but this statement needs more positive corroboration. Krebs, Gerlach, and a number of other pathologists, have expressed the opinion that the milk obtained from cows suffering from tuberculosis is capable of producing tuberculosis in the human being, and these views have been apparently substantiated by some recent experiments by Buhl.

The arraignment of contaminated milk as a disease-producing agent is thus seen to be sufficiently grave, even with our present imperfect and fragmentary knowledge of the question, to warrant a still greater interest than has hitherto been paid to the subject. Future investigations will probably serve to show that other infectious diseases are propagated in a similar manner to those already mentioned. The manner of preventing the infection of milk is a very intricate and perplexing topic, and is beyond the scope of our present remarks. We may, however, discuss this phase of the question in a future number.

An equally important matter—perhaps more so, because more within the bounds of our present knowledge—is the practicability of determining adulterations by the simple methods now employed by the Health Inspector. The chief interest centres practically in the adulteration of the milk by the addition of water, and by skimming. Both intentionally and unwittingly a great deal of unnecessary obscurity and confusion has been thrown around this question, but

the problem is essentially a simple one, and we need devote very little space to its consideration.

It is very evident that the whole question hinges chiefly on the utility of the lactometer. Is the specific gravity of the milk of healthy cows a sufficiently constant quantity to warrant any deductions drawn from its variations beyond certain well-known limits?

Quevenne, who is a perfectly competent and reliable authority, and whose testimony has not been contradicted, has analyzed 6,000 different samples of milk, and he has found that the specific gravity varied only from 1029-1033. Of course, there are a few exceptions to this rule, but the percentage of variation is very small, and its effect is practically entirely counterbalanced by the fact that the commercial can of milk in general use in the metropolis (and the suspected milk is always taken directly from the can) is composed, on the average, of the milkings of eight cows. If the specific gravity of the milk as tested by the lactometer (which is simply an urinometer graduated for milk, and which requires the same precautions in its employment as the latter instrument) falls below 1029, we may rest satisfied that the milk in question has been watered. If too much cream has been added to the milk, however, the specific gravity will also fall, and this test alone would not suffice to distinguish between the two. But the millennium is still in the distant future, and no milk-dealer has been found as yet who has pleaded guilty to the commission of such a heinous offence as the addition of cream to good milk. If, in addition to the low specific gravity, the milk looks and tastes watery, and runs too freely, we have sufficient evidence to prove its adulteration. In doubtful cases recourse may be had to the more tedious but, at the same time, more accurate method of direct chemical analysis of the amount of water present in the sample in question.

The detection of skimmed milk frequently presents greater difficulties. If the cream is removed, the specific gravity of course rises above the average, but the milk-dealer then adds a sufficient quantity of water to reduce it to the proper standard. The amount of cream may, indeed, be measured by the cremometer, but, unless the skimming has been excessive, the results of such an examination must be regarded with a certain amount of suspicion. The fact is that the addition of water to the milk causes the cream to be thrown up more effectually than in pure milk, so that a skimmed and watered article might show apparently the presence of as large a quantity of cream as does unadulterated milk. It appears to us that the employment of Heusner's Galactoscope, which is gaining favor in Germany at the present time, would be of considerable service in this dilemma. This instrument consists of two parts, one of which receives a 2 mm. thick layer of the suspected milk, while the other consists of a plate of "milk glass," whose translucency is equal to that of a layer of normal milk, also 2 mm. in

thickness. The apparatus is then held up to the light, and attention directed to a dark line on the posterior surface of the instrument. If the milk contains too little cream—in other words, if it is more translucent—the line will be seen more clearly through the milk than through the plate of glass. This instrument is very simple in its application, and appears to us to be of considerable value as corroborative testimony. But in all cases of doubt, recourse must also be had to a quantitative chemical analysis of the amount of fat present.

The great advantage in the use of the lactometer and galactoscope is the readiness of their application. The latter instrument is at present only used in Germany, but the lactometer is employed in many of the large cities of France, Belgium, Switzerland, and Germany. In this city, also, it has done good work, and its testimony is no longer contradicted. If we remember that, in addition to the baneful effects of adulterated milk upon the health of the infant, it also formerly involved a daily loss to the community of several thousand dollars, we can form some conception of the magnitude of the reforms to be still undertaken, and we think that the Board of Health should receive the earnest moral support of the profession in their well-meant endeavors in this direction.

#### THE NATIONAL HEALTH BUREAU.

THE interest which is being developed in the bill to be presented to Congress in relation to the creation of a National Board of Health is quite significant of ultimate success. The arguments thus far have been altogether on one side, and seem to be unanswerable. In fact, we are not aware that any one opposes the measure. The only question at present seems to be, how can any proposed National Health bill be made most effective?

On a previous occasion we offered the suggestions of a framer of a bill, and invited comments from other gentlemen equally interested in the subject.

In another column we publish an amendment to the bill previously offered. The one in question is certainly more comprehensive than its predecessor, and will doubtless serve an excellent purpose.

Besides representing the Army, Navy, and Marine Hospital Departments, it is proposed that the presiding officer of the board be ex-officio a member of the Cabinet. The latter condition will bestow upon the board a becoming dignity and usefulness, and will raise it to an equal standing with the other departments of the general government. The manner of appointing the members of the board is, at least, until a better means is suggested, very commendable. The idea also of making it an advisory board to Congress does away with a great deal of red tape, and gives ample opportunity for suggesting action and giving aid in regard to the suppression of widespread epidemics. But as before remarked, the subject is still under dis-



cussion, and any suggestions are invited which may be practical in character, and may have a tendency to increase the efficiency of the proposed law.

When the required ground shall appear to have been covered in regard to proposals for perfecting the bill, the necessary steps will be taken to present the said bill to Congress.

## Reviews and Notices of Books.

**THE IDENTIFICATION OF THE HUMAN SKELETON: A Medico-Legal Study.** Awarded the Mass. Med. Society's Prize for 1878. By THOMAS DWIGHT, M.D., of Boston, late Professor of Anatomy of the Medical School of Maine. 8vo, pp. 54, 4 charts. Boston: David Clapp & Son. 1878.

THIS little work is as well worthy of the attention of the expert as of the general practitioner. Osteology is indeed a "dry" subject as set forth in the text-books; but when dressed up for a special bearing upon legal medicine, and especially when so well costumed as by Dr. Dwight, enthusiasm supplants indifference. The questions: 1. Are these bones human? 2. Do they belong to one or more individuals? 3. What is the sex? 4. What is the age? 5. How long is it since death? 6. What was the height of the skeleton? 7. If certain parts are wanting, can we estimate their size? If so, how? are all answered entirely satisfactorily? Drs. Wight's, Bardeleben's, Sappey's, Cruveilhier's, Henle's, the author's, and others' tables and observations supply the basis for the rules laid down. Every point of importance in the study of the identification of the human skeleton may be found fully considered in this valuable little book. To all students of medical jurisprudence it shall prove of special interest and value upon the subject of which it treats.

**THE THROAT AND ITS DISEASES.** By LENNOX BROWNE, F.R.C.S., Ed. London: Bailliere, Tindall & Cox. 1878. 8vo, pp. xii., 351.

MR. LENNOX BROWNE, who, we believe, was for a number of years assistant to Dr. Morell Mackenzie, of London, as well as his surgical colleague at the Hospital for Diseases of the Throat, established by that gentleman, has had unusually favorable opportunities for studying diseases of the throat, the fruits of which have appeared in part from time to time in the medical journals, and are well collated and digested in the volume under consideration. The author's rare artistic skill has been utilized in the production of one hundred beautiful illustrations in colors, the very best of the kind we have seen, and which have been distributed in ten plates, so bound that they can be unfolded beyond the body of the book, for their convenient study during the perusal of the letterpress. Fifty wood engravings, designed and executed by the author, appear in the body of the work; these are unusually accurate, and the instruments are mostly drawn on a uniform scale of one-half size. After a few introductory pages detailing the plan of the work, which is very methodical, there is a short chapter on the laryngoscope and rhinoscope. Mr. Brown prefers the spectacle-frame reflector of DuPLAY for illuminating the pharynx; and for examining the anterior naves he gives the palm to the tri-valved speculum of EDDY, of New York, to which he has adapted a rack movement to keep it open at any desired point. The seven following pages are devoted to the anatomy of

the larynx, illustrated by two outline sketches of the laryngeal image, one showing the bifurcation of the trachea, and one the view in phonation; the posterior portion of the rima glottidis in the latter being represented gaping—evidently a mistake. The chapter on the laryngoscopic and rhinoscopic image, which follows, is illustrated with two cuts after Mandl's plan, with sectional views of the parts with the mirror *in situ*, and adjacent designs of the laryngeal image produced by the position of the mirror indicated. The rhinoscopic image, which is reproduced in the colored plates, is one of the best we have seen, except so far as regards the pharyngeal extremity of the Eustachian tube. Then follows a chapter on the general semeiology of throat diseases, in which the various subjective and objective symptoms common to them are discussed seriatim. The therapeutics of throat disease are discussed in another chapter, with cuts of the various instruments found most serviceable in the author's practice. In discussing the use of forceps for the evulsion of morbid growths, Mr. Browne justly condemns as dangerous the large and powerful forceps used by Fauvel, of Paris, and prefers the more delicate instruments originally adapted to laryngoscopic surgery. He is evidently no friend to unguarded instruments, whether cutting or crushing, for fear of injuring healthy structure; and he extols the galvano-cautery, especially for specific cases, and figures a battery of his own device.

Coming to the subject of disease, a mere outline of prominent points is given, correct enough as far as it goes, but partaking rather of the nature of an index than of the details expected in a treatise. The symptoms are enumerated seriatim rather than described. In his discussions of treatment references are frequently made to formulæ which are collected in a number of pages at the end of the book. These are in great measure those of the Pharmacopœia of the Throat Hospital in Golden Square, in the preparation of which the author took part. The Latin is in the main correct, but we notice the universal use of the genitive instead of the accusative in indicating the total quantities. Thus, *aqua ad* should be written *aquam ad*, or, if the genitive form be preferred, it should be followed by *q. s.*, thus, *aqua q. s. ad*.

Diseases of the pharynx and fauces are discussed in less than twenty-four pages, and as the type is very large, it may be inferred that the subject-matter is very much condensed and even fragmentary; and the same remark will apply to the whole practical part of the work, much of which is schematic rather than discursive. Brevity has been cultivated to such an extent, that, though attractive to the specialist, who is merely interested in learning the author's personal views and opinions, it can hardly satisfy the requirements of the general practitioner, for whom it is specially designed, if the latter be anything of a student. Phlegmonous pharyngitis is presented as synonymous with hospital sore throat. In the treatment of diseases there is nothing special to be noticed, except the frequent recommendation of natural mineral waters, so much commended by continental authorities. In the local treatment of chronic pharyngitis, the author advises destruction of the enlarged vessels which supply blood to the follicles, by means of a fine galvano-cautery point or the nitrate of silver after preliminary incision, within a short time after which the follicles are said to shrivel up and disappear. Direct destruction of the diseased follicles themselves is regarded as simply treatment of an effect without removal of a cause.

In the treatment of acute tonsillitis the author does not

recommend the steam or spray inhalation so much in vogue, or the local use of ice, but finds the most effective and agreeable local measure in frequent gentle gargling with warm water medicated with glycerine, carbolic or salicylic acid, or mere retention of the solution in the mouth from time to time.

Though opposed to scarification of an inflamed tonsil, he approves of the removal, during acute inflammation, of tonsils too small for excision in the intervals between recurrent attacks.

With regard to tuberculous laryngitis, our author evidently inclines to the theory of the primary development of tubercle in the larynx, and to belief in the characteristic appearances of its ulcerative processes as distinguishable from those of catarrhal, syphilitic, and other ulcerative inflammations, in which view he is not in accord with the present views of most laryngeal pathologists, who as a rule assert most positively that it is impossible to differentiate tuberculous ulceration of the larynx by the mere optical appearances alone. In adopting the view of Virchow, who recommended the larynx as the most appropriate place for the study of true tubercle, he neglects to add that distinguished pathologist's admission, that the evidence is very transitory. The subject of neoplasm in the larynx presents a bone of contention between the laryngoscopic specialist and the general surgeon, the former inclining to intra-laryngeal interference, and the latter to external operations, usually in the absence of skill for intra-laryngeal manipulation. Mr. Browne, who certainly ought to be able to speak by the card, states that, in attempts at removal even of benign growths from within the larynx, direct injury of healthy parts leading to fatal results is by no means of unfrequent occurrence. If this be more than exceptional, it can only indicate carelessness in an expert operator, or recklessness in an inexperienced one. He also believes that recurrence of laryngeal growths removed through the mouth is much more frequent than is generally supposed—an observation which presupposes either incomplete evulsion in the first place, or inefficient cauterization of residue afterwards. He furthermore asserts that benign growths not unfrequently assume a malignant and even cancerous character by the irritation produced through attempts at removal. While an occasional occurrence of this kind is beyond cavil, it is well known that mere local irritation, coughing and the like, produced by these growths, occasionally sets up malignant degeneration, even without operative interference.

This is the only argumentative chapter in the book, and seven pertinent propositions are discussed with considerable detail.

Our candid conclusion in regard to this division of the subject is that the excess of caution inculcated by the author is apt to lead to sins of omission rather than to sins of commission.

With brief chapters on malignant disease of the pharynx and larynx, and on neurosis of the larynx, the text concludes with a short section on the differential diagnosis of laryngeal disease, in which, after quoting from an admirable lecture on that subject by Dr. Morell McKenzie (*Lancet*, Jan. 6, 1872), the author appends an instructive analytical table of the prominent points of differential diagnosis. The typographical execution of the work is unexceptionable. The paper is good, the type attractive, the margins large, the illustrations well cut and accurate, and the proof-reading has been so good that we have not noticed any typographical errors; but the size of the book is very deceptive as to the amount of subject-matter.

In conclusion, we recommend this beautiful volume as an acceptable addition to the library of those engaged in the treatment of diseases of the throat, and we trust that when another edition is called for the author will amplify his descriptions of disease sufficiently to embrace that detail so essential to a thorough exposition of the subject.

#### TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK FOR 1878.

ALTHOUGH containing a lesser number of papers than last year's volume, the communications are highly interesting and practical. Some have already appeared in the *Record*. By referring to the January 29, 1878, number of this journal, the reader will find on p. 72 *et seq.* a very satisfactory report of the regular business of the Society, as well as special reference to the "Report of Committee of Ethics" (p. 74), to the "Report Favoring the Passage of a Law Relating to Expert Testimony" (p. 75), and to the "Action of the Society with Reference to the Code of Ethics," all of which are of general interest and importance.

Dr. Eugene Beach, of Gloversville, read a short, crisp paper upon "A Case of Penetrating Wound of the Stomach, with Recovery." Allan McL. Hamilton, M.D., of New York, described a very interesting case of "Auditory Epilepsy" of the *perpendicular* vertiginous variety (as he expressed it), with the results of personal observation (see *Record*, Feb. 9, 1878, p. 107), a paper which will well warrant perusal, as well as Dr. Roosa's remarks thereon. Next comes Dr. Robert F. Weir's article on "Urinary Fistula in the Ante-scrotal Region," which appeared in the *Record*, April 13, 1878. Paper IV., "Clinical Observations Relating to Vaccinations during Attacks of Pertussis," by George Bayles, M.D., of New York, to the effect that vaccination has a marked arresting influence upon whooping-cough. Dr. Elisha Harris, of this city, read a highly important article on "Registration of Vital Statistics—Suggestions Concerning the Duties of Physicians in Certifying the Causes of Deaths, and in Reporting Prevalent Diseases and Preventable Causes of Mortality—Outlines of a Plan for this Service," urging the legal requirement of such reports. Dr. H. gives a blank form for such registration, which should be used in every State in the Union. Dr. Edward Seguin makes a plea for "More Uniformity in Physic and Pharmacy."

Article VII. is from the pen of Dr. Stephen Smith, of New York, on "Some Practical Tests of the Chlisms of the Antiseptic System;" see *Record*, Feb. 2, 1878, p. 94, for an abstract.

Article VIII., "Lacerations of the Cervix Uteri as a Factor in Some Forms of Uterine Disease, with Cases Illustrative of Treatment," by Walter B. Chase, of Windham, N. Y., which paper gave rise to remarks by Prof. Dr. Barker, Dr. H. T. Hanks, and Dr. Jacoby. (*Record* for March 9, 1878, p. 193.)

Maurice Perkins, M.D., of Schenectady, read a paper on the "Estimation of Urea," namely, by decomposing urea by soda hydrobromite in solution, collecting and weighing the nitrogen which is evolved, and making the proper calculation (*i. e.*, multiplying the number of cubic cms. of gas obtained by .0269).

The next paper, by Dr. J. G. Richardson, Professor in the University of Pennsylvania, on "Improved Method for Detecting Leukæmia during its Early Stages, etc.," is quite interesting and suggestive. (*Record*, March 2, 1878, p. 165.)

Article XI., "Ischæmia of the Retina," is by Thos. R. Pooley, of New York, and a very interesting paper it is. Dr. Arthur Mathewson, of Brooklyn, adds to



the elucidation of "Diagnosis of Intracranial Tumors," and gives several cases in point.

Dr. E. R. Squibb, of Brooklyn, in a "Note on Hydrobromic Acid," urges uniformity of strength, and that the standard should be a 34 per cent. solution, equal, chemically, to one-half the strength of potassium bromide as to the bromine contained therein. Precise directions are given for the preparation of a solution of this strength. Some diseases of the "Salivary Glands," by Dr. D. H. Goodwillie, of New York; "Case of Intussusception, with Sloughing and Extension of a Portion of Small Intestine," by Dr. M. D. Benedict, of Syracuse; "Surgical Notes," by C. H. Giberson, M.D., of Brooklyn; "Scarlet Fever and Diphtheria in Brooklyn," by Dr. Francis H. Stuart, Registrar of Vital Statistics for Brooklyn; "Brooklyn Public Schools," by A. N. Bell, M.D., Chairman of Kings Co. Committee on Hygiene; and two other papers of the same character as the last, with Dr. L. Duncan Bulkley's article "On Diet and Hygiene in Diseases of the Skin," close the communications in this valuable volume. The last-mentioned paper is of great general and special value practically, and will amply repay perusal. Of course the usual list of members of the State, as well as of the several County Societies, appears.

The volume is well printed and handsomely bound, and will be a valuable addition to every physician's library, who may be so fortunate as to possess himself of a copy.

## Correspondence.

### THE NATIONAL HEALTH BUREAU.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—As Congress will doubtless be petitioned for the appointment of a National Board of Health, the following modification of the text of the bill published in your last issue is respectfully submitted:

I. That the board shall be known as the *United States Board of Public Health*. That its duties shall be to advise the General Government, Executive of each State, and Commissioners of the District of Columbia, on all matters relating to the prevention of disease and the improvement of the public health; to advise with and obtain information from the board of health of each State; to consult with the Superintendent of the Census with regard to the statistics of disease and mortality; to establish a standard of the qualifications of municipal and other health officers, analysts, and sanitary inspectors; and appoint boards for the examination of all persons charged with the care of the public health.

II. The Board shall prepare and present to Congress an annual report of its operations, with such recommendations as may be deemed advisable; and, when necessary, it shall appoint members of its own or of State boards of health to investigate disease or other matters specially pertaining to the public health.

III. The Board shall be constituted of one medical officer from the army, navy, and marine hospital services of the United States, and of three eminent physicians from civil life, a sanitary engineer, and a meteorologist or scientist, each and all to be selected for their special knowledge of hygiene and professional eminence.

IV. The presiding officer of the Board of Public Health shall be *ex officio* a member of the Cabinet, and shall be selected by the President of the

United States; that the medical officers of the government shall be selected by the Secretaries of War, Navy, and Treasury respectively, and the members so chosen shall select from the most eminent members of the medical profession, and recommend to the President of the United States for appointment, the other two members of the Board; that the President of the Board of Public Health shall select and recommend for appointment to the President of the United States a sanitary engineer and a meteorologist or a scientist of approved ability, one of whom shall act as Secretary of the Board.

V. That the President of the Board shall receive not less than \$5,000 per annum; the two physicians from civil life, the sanitary engineer, and scientist or meteorologist not less than \$3,000 per annum; and the officers of army, navy, and marine hospital services the pay and allowance of their respective grades.

VI. That to carry out the provisions of this act—to prevent disease, suffering, and death among the people of the United States—the sum of \$50,000 per annum shall be appropriated by Congress to be disbursed and accounted for by the President of said Board, in accordance with its directions, and on vouchers and forms to be prescribed by the Secretary of the Treasury.

MEDICUS.

### THE DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The article of Dr. Swift, in the Boston *Medical and Surgical Journal*, reproduced in the last number of THE MEDICAL RECORD, will probably be quoted by the periodical press and a false theory circulated among the profession and the public at large. This theory is based on the following hypothesis: "The ovum represents the female elements, the spermatozoa the male. If the ovum becomes impregnated by a *few* spermatozoa, the female element will be in excess and the result a female. If, on the other hand, a *good many* spermatozoa impregnate the ovum, the male element will preponderate and a male will be the result." This hypothesis leads the author to deduce a theory by which we may be enabled to determine the sex in utero, and make use of the means of producing either a male or a female at will. He says further: "If the ovum is high up—in the ovary or at the fimbriated extremity of the Fallopian tube—probably only a few spermatozoa will come in contact with it, but if the ovum is low down, then the spermatozoa will be in excess." According to this the sex depends upon the time of coition.

Such a theory could never have been constructed if the following positive embryological fact had been taken into consideration: Modern researches have proved that a single spermatozoon is sufficient for impregnating an ovum, or to be more correct, that the ovum can be impregnated only by a single spermatozoon, because by a most perfect mechanism the ovum, after the penetration of a single spermatozoon, is entirely protected against the intrusion of any other. This is the case both in ova provided with a special opening—micropyle—for the entrance of the spermatozoon and in those destitute of a micropyle. Thus the assumption of an ovum being impregnated by *only a few* or a *great many* spermatozoa is absurd, and the false theory, with all its deductions, vanishes before this simple embryological fact.

Yours truly,

W. B. NEFTTEL, M.D.

## DR. MARION SIMS AND HIS OPERATIONS IN VIENNA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—A cutting from the *Boston Medical and Surgical Journal* (not the journal itself) has been shown to myself and other physicians in this city, which consists of the following paragraphs:

"We extract what follows from a very readable letter to the *Chicago Medical Journal* from Vienna:

"Dr. Sims's patients operated upon here all died of peritonitis within ten days of the operation. I remarked to the professor who related the facts to me that I supposed they selected desperate cases for Dr. Sims to operate upon. He replied that although the cases were bad ones that did not alter the fact that they had died of the direct effects of the operation.

"Dr. Bozeman spent two months here in 1876, and I find a pretty general impression among the gynecologists of Vienna that he is the more skilled operator of the two.

"In the rivalry between these two eminent men, many here in Vienna think Dr. Sims has carried off more than his legitimate share of the professional laurels."

I think most would infer from the above paragraphs and the association of the two names mentioned, 1st, that Dr. Sims had operated for vesico-vaginal fistula in Vienna, and 2d, that all the patients that Dr. Sims operated upon in Vienna died of peritonitis within ten days of the operation.

All admit, whether personally friends or foes to Dr. Sims, that no one in this country has done so much for gynecology as he, and all honorable men must regret to see even an unintentional injustice done him.

As Dr. Sims is now abroad, and therefore cannot immediately refute the wrong impressions conveyed in the above isolated paragraphs, I ask for space in the *Record* to say that, on looking at the *Chicago Medical Journal* for September, 1878, I find in the letter, from which they are quoted, that they are preceded by the following sentences:

"Dr. Marion Sims spent some time in Vienna during the past winter, the object of his visit being, as I am informed, to collect material for a new forthcoming edition of his work on Uterine Surgery. While here the doctor was of course considerably lionized and invited to perform gynecological operations. Among these he did three for the removal of cancerous portions of the womb, by a method called by the Germans, '*Trichterförmige Excision*,' which consists in cutting away with the scissors a funnel-shaped portion of the cervix uteri, extending, when necessary for the removal of the diseased tissue, into the body of the womb itself."

From the above it will be seen that the writer only asserts that three patients with cancer of the uterus died from peritonitis after being operated upon by Dr. Sims.

The character and high tone of the *Boston Medical and Surgical Journal* preclude all suspicion of "malicious intent" on the part of its editor or editors, and this gross injustice to Dr. Sims must have been the result of inadvertence, or accident of the "scissors."

It has seemed to me proper that this correction should appear in a journal of this city, the residence of Dr. Sims, as those who have seen the cutting might not see the refutation in the journal in which the misrepresentation originally was published, while at the

same time, I cannot doubt that the *Boston Medical Journal* will gladly and promptly make the "amende honorable."

FORDYCE BARKER.

85 MADISON AVENUE, October 31, 1878.

## THE QUARANTINE OF NATCHEZ, MISS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The accompanying letter from my brother, Dr. Orrick Metcalfe, of Natchez, may prove worthy of publication in the *Record*. If you think so, it is at your service.

Very truly yours,

JOHN T. METCALFE.

October 17, 1878.

"We have all the roads into Natchez guarded. Not only the main roads, but every approach to the town, even by paths and bayous. It reminds one of war-times to see a double line of guards, night and day, rain or shine, doing duty on their posts. We allow no one from an infected place, no matter how often he may have had the fever, to enter; nor do we permit persons from suspected localities to come among us. Should such be accidentally discovered they are made to leave at once. So unanimous are we that there is little difficulty in enforcing the rule; not even the most influential among the citizens daring to ask exemption.

"The matter of contagion (transportation) seems to be settled forever, so undeniable has been the spread of yellow fever by refugees. In this county (Adams) I have not heard of one case of the disease. Such dread has seized the people as to prevent, in many instances, the care and attention needed by the sufferers. Utter failure of treatment in so many cases has discouraged and demoralized both the lay and professional mind. One scarcely knows whether it promises more to be treated *secundum artem*, or by the theoretical notions of some experimenter.

"I was sorry to hear of poor Dr. Kibbe's death in New Orleans. I sympathize with every honest worker and am pained to hear of any such falling victims to theoretical convictions. The use of cold water I am not disposed to rely upon as a means of cure, after Kibbe's idea. It gives great comfort in certain cases, and does good. In others it becomes so painful that one has to give it up.

"Is it not strange that so much difficulty exists in the differential diagnosis? H., who was sent to a little infected village in the interior, called the fever 'bilious malarial,' although six out of twelve cases had died in a few days. *Unless yellow fever is prevalent* we never have cases of that sort in Natchez. A short time after the establishment of quarantine here there was a case that gave much uneasiness. The man had died, after an illness of ten days, having thrown up something like black vomit. He had had no medicinal treatment. Not being able to have a post-mortem examination otherwise, I made it myself, at 9 o'clock p.m., the physician who attended the patient not caring to do so. It was evident that the vomiting, etc., had been due to renal disease, such as existed in I's case. The statement of that fact had a very quieting effect on our panic-stricken people; for never has such fear of the fever existed before with us. How terrible is the situation of the poor refugees who are driven back to Port Gibson and Vicksburg by the fever, from which they had fled, breaking out in their places of refuge! It is hard to be sick in the country now, when experienced physicians are out of reach and supplies only of the simplest kind are attainable."



## New Instruments.

### CONTRIBUTION TO THE TREATMENT OF URETHRAL STRICTURE.

By ALEXANDER S. HUNTER, M.D.,

NEW YORK.

In commencing the treatment of a urethral stricture the choice of method and of instruments will depend on its condition, its size, and its location.

In every case, as stated by Gross, "there is associated with the contraction a subacute or chronic urethritis, which is a source of spasm and irritability, to the latter of which most of the reflected symptoms are due."

Experience teaches that the circular, wedge-shaped bougie, in commencing the treatment of all permeable strictures, is the best means not only of relieving these complications, but also of reducing the obstruction on which they depend.

The filiform bougie in strictures of small calibre, and especially if complicated with false passages, will generally serve an exceedingly useful purpose in conducting tunnelled bougies of increasing sizes through the contraction.

If, however, the stricture be a very close one, and the more especially if its walls be indurated as well as complicated with false passages, then I much prefer to use what I have called the *filamentous wedge*. (See illustration.)

A "No. 5" consists of a point four inches long, which is precisely the filamentous bougie of Gouley, a tapering circular wedge two inches long, which is a continuation of the filamentous point, and a staff eight inches long, which is equal to, and a continuation of, the base of the wedge.

The length of the wedge increases, in the larger sizes, at the expense of the length of the filamentous point, in order to preserve the same gradual taper of the wedge. The filamentous points are also coarser in the larger sizes, and it is to be *specially noted* that in all the sizes, except at their very point, they are of *uniform calibre throughout*. As at first made, the points of all sizes were but about two inches in length.

The long point of this instrument traverses the urethra *beyond* the stricture *before* the wedge *encounters* the contraction, and therefore the operator can exert *urgent and efficient* pressure, with the consciousness that *the wedge has not departed, and cannot depart*, from the urethral canal into a false passage.

*So strong a claim* can hardly be urged for the *tunnelled sound*, with its *blunt* point, together with its liability, under certain circumstances, to produce a *short bend* in its slender guide.

In continuing the treatment of strictures of all sizes and in all locations, except at the meatus, the *circular wedge*,\* in my opinion, continues to be the best instrument so long as but a moderate amount of resistance is encountered in its introduction, and until satisfactory progress ceases to be made in the way of dilatation.

Up to this time the patient will have been put to but little pain and inconvenience, a considerable amount

Fig 1.

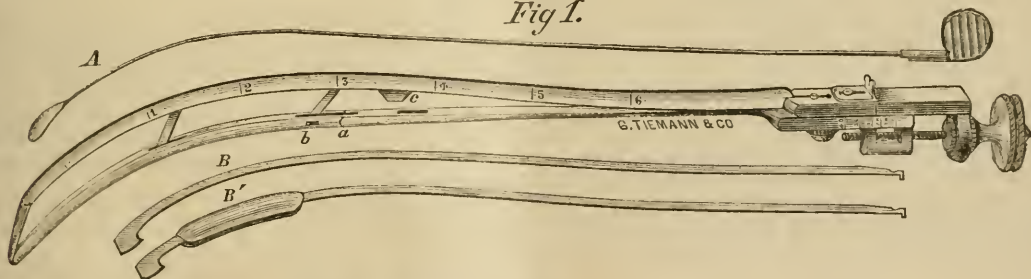
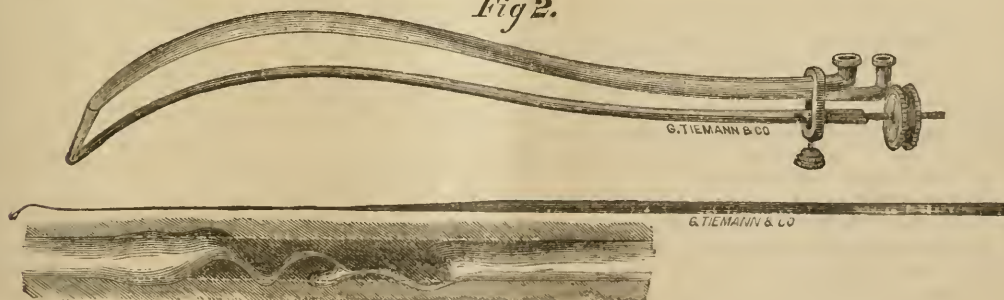


Fig 2.



This instrument is the result of a failure I made two years ago, while attempting to pass one of the smallest tunnelled sounds, over a filamentous bougie, through a close traumatic stricture.

I thereupon had four sizes of the *filamentous wedge* made by Jno. Reynders & Co., which in the case above referred to, and several times since, have rendered the most satisfactory service.

They are made of whalebone, highly polished, and in sizes of from five to ten of the French scale.

of the contraction will have been overcome, the urethritis and irritability will have been removed or relieved, and the patient will now be in the best condition for further efficient treatment.

At this point, in my opinion, the circular wedge

\* A term used to specify a bougie with a *gradual* tapering point. I prefer those made with a Van Buren curve, and with three inches of a taper, each point being only one and a half millimetres less in circumference than its shaft. Such a set will therefore include the regular sizes of the French scale, commencing with No. 11.

ceases to be the best means of securing further progress, for the resisting surface of the stricture is increased by each successive size of wedge, and this not only, but there is also a corresponding increase of difficulty in fixing the stricture, which difficulty increases in proportion to the length of the elastic canal included between the stricture and the glands or part held by the operator.

Moreover, since—as shown by Otis, Weir, and Gross—the size of the meatus, is to the size of the spongy portion of the canal as three to four nearly, it is apparent that the circular wedge can never fully dilate strictures in the deeper portions of the urethra, without destroying the normal conditions of the canal.

In view of the above considerations, I have been led to devise, and, with the assistance of Geo. Tiemann & Co., have produced, the dilator, divulsor, and urethrotome, shown, half size, in Fig. 1. That nothing has been sacrificed to effect this combination, I conclude from the fact that it has served me repeatedly during the last nine months, and I have found it to execute either dilatation, divulsion, or incision, in any portion of the canal, all the way from 20 to 44 of the French scale, as perfectly as though devised for either purpose only.

The curved bars are so made that they dilate but  $3\frac{1}{2}$  inches at a time of the urethra, and therefore the operator can address his efforts to the deeper portions of the canal, and enlarge it to the required extent without enlarging the meatus. This is accomplished by means of a joint in the concave bar at *a*. This same joint also allows the bars to dilate to their fullest extent without increasing resistance. The operator is therefore at all stages of progress confronted by the stricture only, and can appreciate exactly the amount of force that is being exerted to effect its removal.

The amount of curve\* in this instrument is not less than the curve of Thompson, though distributed through longer space. This distribution of curve enables the operator to make tense, *longitudinally*, any portion of the canal he may desire to incise. Again, the curve allows dilatation or incision to be made in the curved portion of the urethra, without materially disturbing the normal relations of the parts; an advantage not offered by the straight dilating urethrotomes, which in this region make incisions of varying depth.

The blade *A*, of this instrument traverses the convexity of the curve from behind forward. It is sharpened on either end, but blunt on its most projecting edge; and therefore, while it will readily cut the resisting bands, it will crowd away without incising the looser tissues.

By this means the operator is not only enabled to limit the amount of hemorrhage, but also the amount of subsequent urinary infiltration.

A scale of inches, commencing at a point where the knife rises out of the fenestrum which conceals it, extends to the handle, and enables the operator to locate the blade just behind the stricture.

A similar scale to locate the divulsor is on the other side, and commences at the end of the convex bar.

The amount of dilatation is accurately indicated by sliding scales on the handle; one side representing the French, the other the American.

I have found it as easy to pass this instrument along the entire urethral canal, as a bougie of Van Buren of like dimensions.

It is equipped for the dilatation or divulsion of strictures in all locations, from No. 20 French up to the normal size of the urethra in its *spongy* portion, by simply placing the steel bar *B* in the groove prepared for the knife, which it accurately fills, and into which it is securely retained by a hook on one end, and a hook and sliding catch on the other.

The groove is sufficiently wide to admit of its being readily cleaned with the edge of a piece of blotting-paper, after which the instrument may be dipped in alcohol and set on fire, or be passed through the flame of a spirit-lamp, to prevent the possibility of contagion.

Having carried the dilatation up to the normal size of the spongy portion, the steel bar *B*, on which there is riveted a German silver glove  $1\frac{1}{2}$  inches long, may be substituted for the steel bar *B*.

By this means the dilatation can not only be confined to shorter limits, but the stricture can be overdistended without interfering with the normal calibre of the canal elsewhere. Other gloves—thicker, longer, or shorter—can be added to the dilator at trifling cost. A very short one is also provided, though not illustrated, which serves to locate and define, in a very satisfactory manner, strictures of medium and large calibre.

A glove three inches long, to fit over the *concave* bar, is also provided, to still further *distribute pressure* in the divulsion of strictures of *large* calibre.

The dilatation of strictures with a dilator, provided its bars have sufficient surface to reasonably distribute its pressure, is less painful, and is much more promptly accomplished, than by the use of the circular wedge.

With the former instrument the *entire force* is applied directly to, and at right angles with, the constriction, consequently *absolutely without friction*. With the latter, *none of the force is applied at right angles with the contraction, but at right angles with the bevelled plane of the wedge*. Hence the resistance to its introduction, with the consequent *longitudinal stretching* of the urethra.

The resistance encountered in its introduction is always, *ceteris paribus*, directly in proportion to the extent of the surface of the wedge.

The smaller wedges, encountering less resistance, usually accomplish the dilatation satisfactorily up to a point where a dilator of sufficient surface to reasonably distribute its pressure (and thereby prevent injury to the canal) can be employed. After laying aside the wedge, I have frequently seen even timid patients, at a single visit, themselves screw the dilator up to two, and even three French sizes, above the size of wedge employed, without, as they stated, a material increase of pain.

Finally, the liability of *spindle-shaped* dilators, even in dexterous hands, to engage between their blades folds of the urethra when effecting their removal, is by means of the parallel dilatation of this instrument precluded.

Of internal urethrotomy, it may be said that it is a very efficient, prompt, easy, and safe method of cure in the pendulous portion of the urethra.

It must be admitted, however, that it is not so safe in the bulbo-membranous portion; nevertheless, if performed with judicious care, with the proper instruments, and in well-selected cases, it will even here be a comparatively safe operation.

With a view to remove, or at least lessen its chief dangers—hemorrhage, urinary infiltration, and urethral fever—I devised, several months ago, the instrument depicted half size in Fig. 2, which has been called the

\* To secure the parallel separation of two curves, when one is *within* the other, I found to be a *most difficult* task, nor did I succeed until after many failures, and only when about to accept the failures I finally thought of combining with the joint at *a*, the inclined plane at *c*, and the sliding joint at *b*, by which means the object is accomplished.



*urethral tourniquet.* It is also made by Tiemann & Co., and consists of two curved bars, each  $9\frac{1}{4}$  inches long, which are connected on their distal end by a third bar half an inch in length. This third bar serves to separate the distal ends of the long bars when moved by a screw at their proximal end. Their proximal ends are separated by a screw on their side, as seen in the figure. When closed the instrument measures twenty of the French scale.

It is easily inserted, and can therefore be made to exert pressure in any portion of the urethra. Moreover, the pressure can be limited to the *exact* extent of the incision by reducing with the fingers the curve in the concave bar. The concave bar is broad and slightly rounded on its projecting surface, that it may distribute its pressure, and thereby contribute to the comfort of the patient.

It has a transverse concavity on its inner surface, to allow it to lie in close contact with its fellow when closed.

The other, or convex bar, is larger than its fellow and nearly round, with the exception of  $3\frac{1}{4}$  inches of its distal end, on the convex surface of which there is a rounded, bevelled, blunt edge. This rounded, bevelled surface, when buried in the incision with even slight tension, prevents not only the loss of blood, but also hemorrhagic infiltration about the edges of the wound, a condition that may prevail when, to restrain active hemorrhage, the operator relies upon the introduction of a sound plugging the urethra before and behind, without making direct pressure in the cut.

A fenestrum is provided in the short bar, through which the patient may void his urine while the instrument is in situ, though it is generally better to relieve him by the introduction of a large soft catheter.

The larger or convex bar is made of German silver, and is hollow throughout. A septum divides its bore into two compartments throughout its whole length. Through one of these compartments ice-water from a fountain syringe can be made to flow through the whole length of the instrument, while the other compartment will return the fluid; and, by attaching a rubber tube, it may be conducted into a receptacle,—or by opening a fenestrum in the distal end, and corking the return canula, the fluid will flow out through the urethra, between the dilating bar and the canula, and thus make the *same* instrument available, when the incision has been made in the upper portion of the canal, or, if desired, another can be obtained with the *position* of the bars reversed.

I have used this instrument once in the bulbo-membranous portion, and several times in the pendulous portion.

In each instance the hemorrhage was arrested at once, and by moderate pressure alone. The tension, it will be observed, can be increased or diminished without disturbing the contact of the bevel-edged bar in the wound.

If hemorrhage should occur, it will be revealed at the outlet of the penis, instead of being concealed in the bladder, as when reliance is placed on the bougie to arrest hemorrhage. Although I have not yet found it necessary to resort to the use of water as an aid in checking hemorrhage, it is, however, consoling to know that an efficient means of using it is in store against a possible necessity; and, again, the facility with which water or any fluid can be conducted to any portion of the urethral canal, and be returned between the bars in actual contact with the urethral wall, would seem to render it a valuable aid in the treatment of urethral fever.

Finally, by reducing the curve in the concave bar,

the pressure can be made to conform *exactly* with the length and depth of the incision.

If, now, the instrument be left with the patient, with instructions how far to insert it, and how often, he will be able himself to not only *thoroughly* keep apart the edges of the wound while healing, but will also himself be able to arrest a possible secondary hemorrhage.

32 E. TWENTY NINTH STREET.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 27 to November 2, 1878.*

JANEWAY, J. H., Major and Surgeon. Relieved from duty in Dept. of the South, and to report to Comd'g General Dept. of the East, for assignment. S. O. 235, A. G. O., Oct. 30, 1878.

BARTHOLOF, J. H., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Columbia, and to report in person to Comd'g General Dept. of California, for assignment. S. O. 235, C. S., A. G. O.

LORING, L. Y., Capt. and Asst. Surgeon. Relieved from duty at Jefferson Barracks, Mo., and to report in person to Comd'g General Dept. of the Missouri, for assignment, to take effect Nov. 25, 1878. S. O. 235, C. S., A. G. O.

FITZGERALD, J. A., Captain and Asst. Surgeon. Granted leave of absence for six months. S. O. 236, A. G. O., Oct. 31, 1878.

HAVARD, V., 1st Lieut. and Asst. Surgeon. Assigned to duty at Chattanooga, Tenn. S. O. 66, Dept. of the South, Oct. 22, 1878.

DE LOFFRE, A. A., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 235, C. S., A. G. O.

WILCOX, T. E., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 235, C. S., A. G. O.

NEWLANDS, WM. L., 1st Lieut. and Asst. Surgeon. His resignation accepted by the President, to take effect Oct. 25, 1878. S. O. 234, A. G. O., Oct. 28, 1878.

## Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 2, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Oct. 26, 1878. | 0             | 19             | 43             | 2                          | 1        | 33          | 0          | 0             |
| Nov. 2, 1878.  | 0             | 14             | 68             | 2                          | 3        | 34          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., Nov. 2, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of sanitary reports received during the past week under the National Quarantine Act:

New Orleans, La.—There were 83 new cases of yellow fever and 109 deaths for the week ending yester-

day. During the week the Board of Health received information of 288 old cases not previously reported. For the past twenty-four hours there were 4 new cases and 8 deaths. Total cases, 13,252; total deaths, 3,973.

*Morgan City, La.*—During the past week there were 8 deaths from yellow fever. Total cases to date, 563; deaths, 102.

*Baton Rouge, La.*—For the week ending yesterday evening there were 75 cases of yellow fever and 16 deaths. Total cases, 2,415; deaths, 160.

*Mobile, Ala.*—During the week ending yesterday evening there were 60 new cases of yellow fever and 10 deaths. Total cases, 224; deaths, 59.

*Doanville, Ala.*—There were 10 cases of yellow fever and 2 deaths for the week ending Nov. 1st. Total cases, 188; deaths, 42.

*Bay St. Louis, Miss.*—Total cases of yellow fever to yesterday evening, 535; deaths, 78. Only an occasional case occurring now, and the local health authority considers the epidemic at an end.

*Port Gibson, Miss.*—There were about 10 deaths in the country near Port Gibson during the past week; none in Port Gibson, where the epidemic is considered at an end.

*Pascagoula, Miss.*—During the week ending yesterday evening there were 19 cases of yellow fever and no deaths. Two deaths from yellow fever occurred in the week ending Oct. 25th, which were not reported in that week. Total cases to date, 189; deaths, 20.

*Grand Junction, Tenn.*—To Oct. 26th there were 174 cases of yellow fever and 74 deaths.

*Milan, Tenn.*—For the two weeks ending yesterday evening there were 12 cases of yellow fever and 6 deaths. Total cases, 15; deaths, 9.

*Memphis, Tenn.*—During the week ending Oct. 31st there were 22 deaths from yellow fever. Total deaths, 2,964. The Board of Health announced officially, Oct. 28th, that absentees could return with safety.

*Mason, Tenn.*—The first case of yellow fever—a refugee—occurred Aug. 29th; the first case among inhabitants, Oct. 4th, since which time to yesterday evening there have been 60 cases and 24 deaths.

*Chattanooga, Tenn.*—During the week ending yesterday evening there were 28 new cases of yellow fever and 12 deaths. Total cases, 433; deaths, 127.

*Meridian, Miss.*—Over 400 cases of yellow fever are reported to have occurred to date. Total deaths, 80.

*Gallipolis, Ohio.*—During the week ending Oct. 30th one new case of yellow fever occurred, and 2 deaths.

No cases of yellow fever or deaths in *Louisville* and *Key West* during the past week.

*Havana, Cuba.*—23 deaths from yellow fever and 9 from small-pox for the week ending Oct. 26th.

*Rio de Janeiro.*—1 death from yellow fever and 11 deaths from "pernicious fever" for the week ending Sept. 28th. In the same week there were 1,495 deaths from all causes, of which 139 were from small-pox. Since May 1, 1878, there have been 1,233 deaths from small-pox.

*Europe.*—In 149 cities and towns of the German Empire, having an aggregate population of 7,429,793, there were 5,755 births and 3,512 deaths for the week ending Oct. 5th, being an annual mortality rate of 24.6 per 1,000 of the population. The lowest death rate, 11.2, was in Kiel; the highest, 42.2, was in Augsburg. The deaths include 108 from scarlet fever and 147 from diphtheria and croup. None from small-pox.—Jno. M. Woodworth, Surgeon-General U. S. Marine Hospital Service.

**DEATH OF DR. JOHN GEO. MORGAN.**—In Philadelphia, October 4th, Dr. John Geo. Morgan, of St. Louis, Mo., aged 80 years. Dr. Morgan was a native of Connecticut. His father died when he was an infant, and his mother when he was but twelve years old, and he was left to the care of a guardian. Before he was of age he had charge of an academy near Morristown, N. J., and also began reading medicine. He subsequently went to New York, where he attended two or three courses of medical lectures, and studied between the courses in the office of Dr. Perry, at Ridgefield, Conn. The scene of his first active practice was at Auburn, N. Y., where he was soon brought to wide public notice from his professional attendance upon Bishop Hobart during his last sickness. Through the influence of Mr. Horace Hills, one of the inspectors of the State Prison, at Auburn, he obtained the appointment of Surgeon and Physician to the Prison Hospital, and continued in that office between nine and ten years. It was here that he made for himself an historical name by being the first to successfully tie the jugular vein, upon a convict who had cut his throat. At a very early period of his incumbency he conceived the foundation of a medical college in Auburn, and he began with a private course of lectures in his office to three students. The course was repeated the next winter with ten or twelve students. His success as an instructor became known to the profession throughout the State, and he enlarged his office, and the next winter had thirty students. During his last private course the class numbered fifty-three. In the winter of 1834-5, he was waited upon, at Albany, by the Hon. John C. Spencer with a proposition from the Trustees of Geneva College, N. Y., to establish a medical department of the college, as the charter of that institution granted it university privileges. Dr. Thomas Spencer and Dr. Wm. M. Taylor, were consulted by Dr. Morgan. After a series of obstacles were surmounted, and arrangements duly completed, a medical faculty of six was organized, with Dr. Morgan as Dean, and Professor of Surgery. The school was opened with about twenty-five students, and there were about six graduates. It continued to increase annually during Dr. Morgan's connection with it, until there were about 200 students. His health became somewhat impaired, and he resigned his position and removed to New York, where he was for some years engaged in practice. Thence he removed to St. Louis, New Orleans, and San Francisco, and again to New York.

**DISTINGUISHED VISITORS.**—Dr. John C. Peters gave a reception at his residence, on Tuesday evening, to Drs. Grange Simmons and N. R. Spenser, of Charleston, S. C., who are on a short visit to this city, after a volunteer service of two months in Memphis with the yellow fever sufferers.

**DR. BRIDDON'S CASE OF EXTIRPATION OF THE RECTUM.**—The report of Dr. Briddon's case of extirpation of the rectum (*Path. Soc.*, page 356) contains two typographical errors. "The upper limit of the cancerous growth was incorporated with the" *peritoneum*, instead of *perineum* as printed. The error is so obvious from the context, that any reader will see at a glance what was meant. In Dr. B.'s operation upon the female urethra (page 357) the orifice of the canal was *transfixed* instead of being encircled.

DR. ELIZABETH M. CUSHIER presented the specimen removed from the case of sudden death during labor, and reported under the head of Pathological Society Proceedings in our previous issue.



## Original Lectures.

### PROPHYLAXIS OF HEMIPLEGIA.

CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL.

By W. H. THOMSON, M.D.,

PROFESSOR OF THERAPEUTICS AND MATERIA MEDICA IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

GENTLEMEN:—In no class of diseases is the study of their etiology so important as in nervous affections, because the majority of them are not primarily nervous in their origin, but rather are simply nervous sequelæ of diseases occurring in wholly different structures. Their effects on the nervous system, however, are such that its symptoms completely overshadow everything else and thus lead naturally to their too exclusive consideration, especially as regards treatment. A man, for instance, who survived for a while the lodgement of a bullet in his brain, would scarcely be rated as an example of nervous disease, and yet in what respect does his case essentially differ from one of hemiplegia due to the sudden lodgement in a cerebral artery of a vegetation detached from a cardiac valve, except that in the latter the foreign body came from within rather than from without? So, also, an apoplectic clot is almost always the result, not of any nervous disorder, but of vascular disease. Apoplectic hemiplegia, therefore, requires for its proper understanding, by the practical physician at least, not so much a minute acquaintance with the localization of nerve-centres and their functions, as a knowledge of the effects, for example, of disorders of the kidneys upon the texture of the arteries. Again, in syphilitic hemiplegia, it is not the nerves, but rather the connective tissue, or else the membranes of the brain, which are involved, and from which the entire trouble proceeds, producing nervous symptoms either by exudation or effusion. Hence, in most paralysees, the nervous lesion is secondary to primary disease elsewhere. Etiologically, therefore, we may divide the common forms of hemiplegia into three classes. 1. Embolic; 2. Syphilitic; 3. Vascular.

Embolism, producing hemiplegia, is most commonly due to one of those little wart-like formations caused by endocarditis upon a heart valve, which, after breaking its pedicle, is washed up to the circle of Willis. If the plug passes beyond the circle of Willis it is then oftenest arrested in the left middle cerebral artery, with results more disastrous than if it occluded a much larger vessel below the great arterial ring. The reason of this is, that the arteries of the brain do not anastomose above the circle of Willis, so that if one of them becomes closed, those parts of the brain supplied by it can get no help from their neighbors and are hence likely soon to soften.

There are necessarily no premonitory symptoms in this form of hemiplegia. It comes without giving any warning to the patient or affording to the physician any signs, other than that if he knows his patient has roughened valves, he may suspect a liability to it, but no more. Nothing, therefore, can be done to prevent its occurrence. We may be tolerably assured of embolism in any given case, if there be a heart murmur, if there be a healthy radial artery, if the attack was extremely sudden, if the patient be comparatively young, and if the consciousness is intact, which is often evidently the case, though there be total aphasia. But

on the other hand, the absence of these elements does not disprove it.

In striking contrast to the embolic form, syphilitic hemiplegia is almost always preceded by significant symptoms, valuable both for diagnosis and treatment. Of these the most important and constant is headache, both preceding and following the attack. It is rarely absent from one of these periods and most commonly belongs to both, though in some cases more severe before the attack, in others, afterwards. It differs from the slight temporary headaches which may pre-  
sage vascular hemiplegia, in being far more constant and severe, sometimes agonizingly so, continuous, and generally worse at night. Another common symptom preceding this form of hemiplegia is that of slight, usually transient, local paralysees occurring in different portions of the body. The uvula may be found out of line, or the tongue protruded to one side with a thickened articulation, or else there may be a little ptosis of one eyelid, or slight strabismus, or numbness or weakness in parts of one limb, etc. Another peculiarity of syphilitic hemiplegia is that it may develop slowly, beginning, for instance, in the morning and not becoming complete till evening; and lastly, it quite often occurs without loss of consciousness. Sometimes, however, it begins with, or is preceded by, an epileptic fit or fits. Here again headache is a valuable aid in diagnosis, for syphilitic epilepsy differs from the common form of that disease in a permanent sense of discomfort about the head during the intervals between the attacks. Like other syphilitic neuroses, hemiplegia is a late manifestation of that disease, often only after years have elapsed since the primary infection, which, moreover, may have had but slight secondary symptoms following it. But the prognosis in syphilitic hemiplegia is much better, as a rule, than in the other forms, and you may sometimes use this fact successfully to quicken the memory of a patient who has denied before that he ever put himself in the way of contracting syphilis. Iodide of potassium, of course, should be used unsparingly, from drachm doses upwards, with  $\frac{1}{16}$  gr. doses of corrosive sublimate, and to sustain the patient against the iodide I would recommend,

R. Ac. phosphor. dil. . . . . 3 vi.

Syr. hypophosphit. ad. . . . . 5 iv.

M.

S.—Two teaspoonfuls in water, t. i. d.

But it is especially the precursors of vascular hemiplegia, which you should learn well and carefully attend to. They are not so pronounced, and are more complex than in the syphilitic form, but nevertheless, the more important of them are rarely absent, and when recognized in time may be of unspeakable importance in leading to measures which will prevent a misfortune worse often than death itself. Vascular hemiplegia, I think, scarcely ever occurs until long after the existence of signs which are as readily appreciable, and even more indicative of danger, than cough, for example, is indicative of the approach of phthisis. As phthisis has both its rational and its physical signs connected with the pulmonary organs, so the vascular disease which causes hemiplegia has its rational and its physical signs; the first consisting of nervous symptoms, the latter of structural changes in the vessels.

Of the rational or nervous symptoms you will have first, vertigo. This is usually slight, not often with reeling, coming on suddenly; not like other kinds, oftenest on first rising, but more commonly some time during the day, not long after a meal. But I must

tell you that vertigo is an exceedingly intricate symptom, too much so for us to complete the topic now. But before you set down vertigo as threatening apoplexy, examine the ears. Some of the worst cases which I have seen have been caused by plugs of hardened wax, and so may any pressure transmitted to, or arising within, the labyrinth, make walking extremely unsteady from dizziness. Some disorders of the ocular muscles cause vertigo also, while the giddiness caused by fermentation in the alimentary canal, or "biliousness," as the patients term it, is easily distinguished by the presence of other gastric symptoms, such as flatulence, acidity, qualmsiness, etc.

Another much more constant symptom is early waking in the morning, with slight headache which passes off after rising. When a patient finds that he awakes earlier than usual, and finds it hard to sleep again, that this from being occasional is becoming habitual, and that his head feels uncomfortable until he gets up, weakening of the cerebral arteries may be suspected.

Cramps in the calves of the legs, occurring generally in the morning, but also at other times, are of even more serious import than the preceding, especially if these are also present. A dread of descending stairs is common also, but is rather a sign of senility than of hemiplegia.

Of mental symptoms, the most characteristic are sudden loss of memory, sudden confusion of ideas, and sudden loss of words. When the memory is at fault, it is not that of old, but of recent impressions, exemplified in telling a story or relating an event twice over, surprising friends by not recalling what happened a few days before, and then having it suddenly recur to him, etc. Confusion of ideas, the patient of course is himself aware of, and on account of its strangeness he is apt to be much alarmed by it. The loss of words is also of a special kind, not at all like the common experience of momentarily being at a loss for the right word, when we send the mind hunting one up, but the patient feels that some very ordinary word has suddenly escaped him, and with it also the idea he had and was about to express, so that he asks, what was I saying? All these mental derangements are palpable to the patient himself, and often lead to a too well-grounded foreboding of impending misfortune, but as they may also occur at any time of life from temporary states of cerebral anemia or exhaustion, they are not conclusive by themselves, any more than cough is conclusive of phthisis, but still they are to be carefully noted. Mental strain, impoverished blood, or great loss of it, etc., produce just such symptoms, the result to the nerve-centres being the same, only that in the vascular disease, which threatens apoplexy, we have a more permanent cause of anemia of these centres from narrowing or occlusion of great numbers of the blood-vessels.

You may then begin the examination for the physical signs of the vascular disease by inspection of the circulation of the skin; the back of the hands affording the most convenient locality. The most common as well as significant appearance is a mottled skin, composed of larger spaces of a marked unnatural whiteness, interspersed with smaller ones pigmented brown or olive-colored. Should you rub the hand smartly, you can produce little more than an evanescent blush in the whitened portions, its quick fading indicating the paucity of permeable capillaries. For the same reason, the skin, where it is not exposed, is nevertheless altogether too white and scurfy. This state of affairs readily affords the explana-

tion of the characteristic pulse, which you will soon have to examine.

You cannot now be too particular in the investigation of the state of the arteries any more than you can be too particular when you are testing a lung. Just as you should complete percussion before you begin auscultation, so the first thing to do with the radial is to feel it, without allowing your attention to be drawn off to the pulse-beat. If the radial artery is healthy, you can scarcely feel it at all; I mean distinguish it in its bed from the surrounding structures, and you judge of its presence there almost wholly from the throb of the pulse. But I doubt if such an artery as that existed in the body of a patient with vascular hemiplegia for years before his accident. Instead of that, the coats of his radial gradually lost their pliability, then became more and more thickened, growing harder all the time, until a year or so before the "stroke," that artery could have been felt more like a strong pulsating cord which you could roll over in its bed, perhaps giving to your fingers the impression of a wire under the skin. If now you note for a moment how far along the forearm you can trace the vessel, you may find it distinguishable half way up, and by the pulse-beat, even two-thirds the way to the elbow. What a departure this is from the healthy state, you can learn by the first examination you make of a person with healthy arteries, when the vessel becomes indistinguishable within an inch from the wrist. The next point to note, is whether besides being hard, the artery is uniform in its calibre, or the reverse. In many cases of arterial disease, and especially in old persons, it may be very irregular, even to the extent of resembling a string of beads rather than like a smooth cylinder. This is due to atheromatous or calcareous patches of degeneration in its course, and as just stated, they are particularly frequent in the aged; but I believe that in the majority of cases of dangerous arteries you will find nothing of the sort in the radials; these vessels being simply too large, too hard, and plainly inelastic. You may then observe the same state of things in the temporals, but in addition you will note these vessels to be extremely tortuous, and in bald persons sometimes coursing up the scalp like cork-screws. The extent of this twisting is pretty conclusive of the degree of obstruction which the blood within the artery has to overcome in the diseased arterioles and capillaries beyond. Such radial or temporal arteries of course, are never single in these morbid characters, for like changes are much more complete in the cerebral vessels, owing to the extreme delicacy and comparative weakness of the connective tissue which surrounds and supports them.

You are now ready both to recognize and understand the import of the peculiar pulse of a person who is in danger of a hemorrhage into his brain. You should lay the tips of your four fingers on the radial, and note if by moderate pressure the pulse is arrested or not under the upper or first finger. A little practice will show you that in distinction from a healthy pulse, no matter how strong that be, the pulse of such a patient is not easily brought to a stop, but very probably is appreciable by all the four fingers. In a healthy pulse, on the other hand, though beating quite forcibly, as just after exercise, the elastic artery can be quickly compressed, so that the stroke beats strongly against the first finger, but does not pass under it to the remaining fingers, while with this morbid pulse you have to use twice the amount of pressure to arrest the wave. Now, an incompressible pulse like this, occurring in a thickened artery, is



often mistaken for a strong and full pulse, whereas it may be quite the reverse of either. It is taken for a full pulse by those who are misled by the touch of a hypertrophied artery, whose real calibre is much less than natural, and an erroneous impression of strength is easily given also by the continued beat or seeming resistance under pressure. In the case of a patient fatally sick with Bright's disease, I once knew a distinguished physician pronounce a favorable opinion as to immediate risk, on account of his "fine, full, healthy pulse." As the strength of any pulse is wholly derived from the heart, this gentleman would have discovered, if he had listened there, that the heart was beating so feebly that no impulse, and scarcely a first sound, could be made out. If there be some febrile excitement in a patient with an incompressible pulse, you may be quite puzzled sometimes to distinguish it from a strong pulse. But a purely febrile pulse ought to be a compressible pulse, no matter how strong it be, and the heart ought to give you a clearer impression of strength than the pulse; nor will fever ever harden an artery, so that you can feel it in its bed.

Another character of this diseased pulse, besides incompressibility, is that it is *long*; that is, it does not pass quickly and abruptly under the finger, but with an evidently prolonged vibration. A long pulse is the opposite, not of a rapid or frequent pulse, but of a *short* pulse. You may have a very rapid and yet *long* pulse, as in some dangerous convulsive states, like puerperal eclampsia, and, on the other hand, some very slow yet short pulses, as in some cases of anemia. Whenever the arterial system is quite clear, and the blood can course freely through it, whether your patient be healthy, weak, or in a high fever, the pulse will be *short*, quickly passing under the finger; whenever, on the other hand, the outflow from artery to capillary and vein is obstructed in the artery, whether by nervous spasm or arterial disease, the pulse wave is retarded, and therefore prolonged.

Now, what is the explanation both of the incompressibility and the length of the pulse here? They mean simply that the arteries are constantly *over-full*. They are always in a state of tubes fully opened at one end and partially closed at the other, so that from narrowing or total obliteration of multitudes of the terminal vessels or arterioles by disease, the larger vessels are in a condition of chronic distention. With this reason for the incompressible pulse we have also the explanation of the long pulse, for, as we have just remarked, were the arterioles and capillaries all free, the pulse impulse would pass quickly through, whether the heart was beating slowly or rapidly, strongly or feebly, but the fuller the arteries, the longer does it take the wave to overcome the resistance of the dammed-up current.

We are now prepared to answer the main practical question—What is it that has wrought this physical change in the arteries from the healthy state? and the reply, in nineteen cases out of twenty, is *toxæmia*, or chronic poisoning of the blood from deficient action of the excreting glands. In some cases the liver is largely responsible, owing to failure on its part to form urea, uric acid being generated in abnormal amount instead. An incompressible pulse is therefore very characteristic of gout, a disease of middle and past-middle life, and also occurs in children during and after scarlet fever, when, quite apart from nephritis, uric acid is often present in excessive quantity. But the most irritating blood by far to the inner coats of arteries, is the poisoned blood of Bright's disease, and to such an extent is this true, that some authors

ascribe three-fourths of the cases of hemorrhagic apoplexy to granular kidneys. It is, however, by no means only those who have albumen and casts in their urine who have dangerous arteries, for often the blood becomes similarly contaminated, and the vessels diseased, in persons who, without habitually passing albumen, nevertheless habitually pass urine of a *low specific gravity*. Except in those cases of nervous disorders which are characterized by an abundant flow of limpid urine of a low specific gravity, such as cases of spinal exhaustion from excessive venery, a habitual condition of this kind in the urine is indicative of damaged or imperfectly working kidneys, if not of cirrhotic liver as well; and such persons will be found to bear surgical operations very badly, to succumb quickly to fevers, and constantly to show, on examination, that their arteries are the very reverse of healthy. In fully-developed Bright's disease, of course, the arteries quickly turn hard and brittle at any period of life. I have noticed such blood-vessels in children who had this affection, and I believe that all recorded instances of hemorrhagic apoplexy in children have had this element noted in their history.

With this statement of the condition which causes a liability to vessel rupture, we will conclude by enumerating the immediate exciting causes that may determine the occurrence of the accident itself.

First, such arteries are likely to be subject to the caprices of a more powerful heart than ever happens to healthy arteries. The heart has to increase in size and strength in order to balance the growing difficulty in the arterial flow; but unfortunately the poisoned blood of Bright's disease often deranges the great nervous mechanism which regulates the distribution of blood so that we may have, on the one hand, violent action of the hypertrophied heart occur; or, on the other hand, spasm of the walls of the arterioles with greatly increased arterial tension in consequence; or both together. Influences which would excite the vaso-motor nerve-centres only moderately in health, may act very immoderately in Bright's disease, and put the weakened walls to an excessive strain. Thus the first shock of a mental emotion, like anger or fear, causes paleness from sudden contraction of the arterioles, when the heart may begin to beat violently before the arterioles begin to relax. A fit of passion, therefore, often induces an apoplectic attack. Extreme cold weather also generally increases the list of sudden deaths from apoplexy in the obituary columns of the newspaper; for the lessened circulation of the skin not only increases that of the internal viscera, but the skin also ceases then its usual assistance to the function of the kidneys. Toxic disturbance of vaso-motor centres is moreover common during the latter hours of the night, as we find illustrated by the usual occurrence then of attacks of asthma, epilepsy, gout, nightmare, and uræmic dyspnoea, and hence also the many instances of persons found dead in their beds from apoplexy, especially in cold weather. Another common cause is the addition of a large element of nitrogenous food by a hearty meat meal, for it is well known that, in health, the kidneys immediately answer such an addition by a corresponding increase in the elimination of urea; but if they are embarrassed by disease, they may suddenly, and critically, fail to do so. On this account apoplectic attacks are especially frequent shortly after a meal. Congestion of the cerebral veins and sinuses by stopping expiration, as in lifting, coughing, vomiting, stooping, or in defecation, of course strain the cerebral arteries by retrograde action on the outflow; and lastly, we must be assured that the arterial system is not much diseased whenever we

recommend a person to take Russian or Turkish baths. When the body is immersed in watery vapor, the skin can add from one to six pounds of water to the volume of the circulation in a few minutes, and on that account most people experience an unpleasant sensation of fullness of the head on first entering these baths, and which does not pass off until a free perspiration relieves the over-distention of the blood-vessels.

Besides the negative advice of avoiding or providing against the exciting causes of vessel rupture just enumerated, what measures should you recommend one to take in whom you find the signs of arterial disease?

First in importance, we may say, comes the subject of diet, for when the elimination of urea by the kidneys is imperfect, the nitrogenous element of food ought to be reduced to as low a point as is compatible with ordinary life. That nitrogenous food is consumed greatly in excess of the actual needs of the economy in the dietary of this country, is amply proved, not only by the contrast in the use of animal food between us and the Asiatics for instance, but also by the prevalence among us of kidney disease. An animal diet, *ceteris paribus*, always increases arterial tension, and a vegetable diet diminishes it, and so soon as embarrassment of the kidneys occurs, this difference of effect between these foods becomes immediately exaggerated, somewhat like the exaggerated susceptibility to saccharine excess in diabetes. If the patient objects to entire restriction from meat, he may then be recommended to take it at one of the two earlier meals of the day, and not at night. The healthiest article of nitrogenous diet is milk, but used only as it is taken by the nomad peoples who have to live largely upon the milk of their flocks and herds. It is singular that the significance of the practice, universal, as far as I know, among such races, of artificially souring milk before using it, is not often alluded to in our books on dietetics. Among the Arabs, and in fact among all the different races of the Turkish Empire, sweet milk is hardly ever even tasted, while soured milk is used constantly, in many cases with every meal, constituting, next to bread, the chief food of the peasantry, and still more so of the wandering Bedouin or Tartar. As soon as the milk is brought into the tent from the cows, goats, sheep, asses, or mares, while yet warm, it has a certain proportion of sour milk added to it from the previous day's stock, and the milk is then warmed slightly to hasten the fermentation. The *original ferment is derived from yeast*, and hence this artificial souring of the milk is wholly different from milk when it is left to sour spontaneously, for that, on the contrary, is the first step in its putrefaction. Now the superior digestibility of soured milk is due to the fact that the stomach is spared the task of curdling the milk itself, preparatory to its further digestion. The curdling of milk in the stomach must necessarily consume a considerable quantity of gastric juice, and many persons even in health, and *à fortiori*, most invalids, find their digestive secretions scarcely able to accomplish more than this initial curdling, so that the latter stages of milk digestion are so imperfect that they find this article constipating, or "bilious." This soured milk, however, I have never found indigestible, but on the contrary, of especial benefit to phthisical patients, as well as in Bright's, and many other constitutional diseases. It can be readily made in this country by taking half a pint of fresh milk, all the better if still warm from the cow, and then warming it to a blood heat. Add to this two tablespoons of yeast. In six

or eight hours it is curdled enough to take two ounces of it for curdling another half pint, and this is to be repeated till the fifth or sixth specimen has been soured, when the bitter taste of the yeast originally added, is no longer distinguishable. After this, milk may be soured every day from the milk of the previous day. This milk has a peculiarly pleasant acid flavor which I have found universally acceptable, even to those who were strongly prejudiced against milk in any form. It is best served well stirred, and eaten with bread, and may be sweetened with sugar, if so desired. Another agreeable form of using it is to hang up the soured milk in a linen bag till the whey is drained off, and then the residue used when about the consistence of whipped cream, sweetened with sugar and spread, like butter, thickly on bread.

Fresh fish is better than meat, and eggs taken in moderation; but all vegetables (except asparagus), and all fruits, may be used freely. Of the beverages, tea and coffee can scarcely be regarded as injurious to any persons when used only once a day each, but a slight excess of tea is harmful in any case where the heart is much damaged, from its aggravating the flatulence and acidity of the congested stomach, and from its special tendency to derange the rhythm of the pulse. All alcoholic drinks, without exception, should be forbidden, and especially malt liquors.

In health, a walk in the open air immediately lowers the tension of the arterial pulse, or as the common expression is, softens it. Let a patient with gouty, or even uræmic, blood, be examined before starting on an open air trip in the country, or at the seaside, and then afterwards, and the change from an incompressible, to a soft, naturally compressible pulse, is often surprising. So all muscular exercise lowers arterial tension, whether in health or in disease. This effect is plainly due to the increased oxidation of effete products by active respiration, and hence, next to temperance in eating and drinking, habitual good, free breathing is the best of safeguards against apoplexy or hemiplegia. You should warn such patients, however, against all forms of fatiguing exercise, for as a class they are poorly provided against the effects of overstrain of any kind.

The medicines best calculated to remedy arterial degeneration, and hence to be used as prophylactics of hemiplegia, are iron and the corrosive sublimate. With the steady employment of the latter agent, in small doses, I have repeatedly noticed the specific gravity of the urine increased, and a restoration of the normal coloring-matters and salts take place, while an improvement in the head symptoms, above mentioned, and a lowering of the arterial tension, has accompanied this change in a fashion too unmistakable to be ascribed to other agencies. The dose should not exceed  $\frac{1}{16}$ th of a grain, three times a day, and is to be continued as long as no symptoms of mercurial disorder appear, when, if so, it may be intermitted for a while. Iron is the great respiratory food of the body, and therefore is to be given whenever we fear muscular degeneration. Muscular power is, in all animated nature, invariably proportioned to the activity of the respiration, and hence the exceptional strength of the muscles of insects. On this account, if you fear degeneration of the cardiac walls, or like change in the muscular fibre of the vascular system generally, this carrier of oxygen is one of the best of restoratives.

**DISINFECTANT.**—A strong solution of oxalic acid is said to be an excellent disinfectant. Great care must be exercised in its use. It will not be popular.



## Original Communications.

## EXTIRPATION OF LARGE FIBRO-CELLULAR TUMOR OF NECK,

WITH REMOVAL OF PORTIONS OF PRIMITIVE CAROTID ARTERY, INTERNAL JUGULAR VEIN, DESCENDENS NONI, PNEUMOGASTRIC, RECURRENT LARYNGEAL AND SYMPATHETIC NERVES.

By GEORGE E. POST, M.D.,

SURGEON TO ST. JOHN'S HOSPITAL, BEIRÛT, SYRIA.

SABAT, æt. seven years, was admitted to the Hospital of the Syrian Protestant College in 1870, for a fibro-cellular tumor situated in the right occipito-parietal region. This tumor was removed by the knife, leaving a denuded space six inches in diameter to granulate. The child made a good recovery, and returned to her home with no glandular enlargements in the neck.

On the 4th of September, 1872, Sabat returned to the hospital with a tumor of the size of a cocoanut on the right side of the neck. The cicatrix of the former wound had so far contracted at the expense of the scalp that it was quite concealed by the hair, and no deformity revealed the frightful loss of substance which had taken place. The new tumor was well encysted, and although dipping deep among the muscles of the neck, appeared to be free from attachment to the spinal column or the trachea. It was evidently surrounded by an independent sheath not adherent to the sterno-cleido-mastoid. Under these circumstances, and in view of the general good health of the child, it was decided to extirpate the tumor. The patient being placed under chloroform, an incision was made from the mastoid process to the sternum, along the anterior border of the muscle, and two horizontal incisions, each two inches in length, were made from the extremities of the first incision, outward and backward, separating the sterno-cleido-mastoid from its two attachments. When the surface of the sac was reached, it was found that the primitive carotid artery was firmly attached to its anterior and internal aspect. As the origins of the terminal branches were also involved in the tumor, the primitive carotid was tied in the lower portion of the neck, and its two branches above the bifurcation. The arteries were then severed and removed with the mass of the tumor, which also included the internal jugular vein, and the descendens noni, pneumogastric, recurrent laryngeal, and sympathetic nerves. These were all divided above and below the tumor. The ghastly wound exposed the deep layer of the muscles of the neck, the trachea and œsophagus, the transverse processes of the cervical vertebrae, and the base of the skull. The operation lasted an hour and a half, and required to be suspended several times to allow the administration of stimulants. Nevertheless, the patient rallied well after the operation, the only important symptom being temporary paralysis of the bladder, requiring the use of the catheter for a few days. The wound healed kindly, and the patient was discharged at the end of three weeks.

Unhappily the tumor returned in the superior portion of the cicatrix, and as it was then firmly attached to the base of the skull, no attempt could be made to extirpate it. A microscopic examination showed the tumor to be an encephaloma. The child died four months after the operation.

## TRACHEOTOMY IN SYPHILITIC DISEASE OF THE LARYNX.

By S. SEABURY JONES, M.D.,

NEW YORK.

TRACHEOTOMY as a means of saving life, where death seems imminent from asphyxia—as in croup or œdema glottidis—is now so firmly established in the favor of the medical profession as to need no advocate. That there are other indications for its performance, however, and a wider field for its usefulness, cannot be doubted.

The following case seems instructive, as showing how happy may be its results, not only in averting death, but also as a potent means towards recovery:

On the 23d of November, 1877, I was called to see Mr. S. I. W., living in the country some distance from New York, and supposed to be suffering from typhomalarial fever. I gained the following history, and noted the following symptoms:

The patient was unmarried, and about forty years of age. He had been actively engaged in business until a year before, at which time he began to suffer from rheumatic pains in the joints and back, with headache and a gradual loss of strength. He had been under medical advice since the previous September, and had been confined to his bed since October, suffering from fever, very intense headache—always worse at night—and diarrhœa, with great pain in the abdomen.

The knees were found to be swollen, and painful upon pressure, and there had been for some time a severe cough and a profuse expectoration of a foul-smelling sanguino-purulent matter.

The patient was much emaciated, the voice hoarse, and the skin bathed constantly in a cold perspiration, and acutely sensitive to the slightest draught of air. The pulse was 100, and the temperature 101° to 102°, and there was considerable tenderness in the right iliac fossa. A careful examination of the chest failed to reveal any abnormality. Upon the head, in the parietal and frontal regions, several large nodes were found, which were very sensitive. Upon examining the throat, the pharynx was found to be the seat of extensive ulceration, and the mucous membrane of the pharynx and larynx, as far as seen, was much thickened. I did not have with me the means of making a more critical examination of the larynx; but the cough, the great hoarseness, the sanguino-purulent expectoration, and the tenderness over the larynx pointed to it as the seat of very active and extensive ulceration. The patient, upon being interrogated, gave the following history of syphilitic infection: The primary sore was contracted in 1865, and healed readily under treatment. During the next twelve months secondary symptoms showed themselves, which also yielded to treatment. After this the patient suffered occasionally from throat symptoms, but enjoyed fair health, as far as the constitutional disease was concerned, until the winter of 1876-'77, when he suffered from headache and rheumatism, of supposed malarial origin. With now and then an intermission, these symptoms became worse until I saw the patient in November.

The patient was put upon antisyphilitic treatment, consisting mainly of the iodide of potassium, and astringent sprays were directed for the throat. Although only moderate doses of the iodide of potassium could be given, on account of the irritability of the patient's bowels, still he improved rapidly, and in two weeks all the symptoms had much improved,

and the patient was able to sit up. About the first of January, however, the cough became spasmodic in character, the attack coming on at night, and lasting several hours. Chloroform inhalations somewhat mitigated the severity of these attacks, but on the 5th of January the patient had a very violent seizure, and, after becoming alarmingly exhausted and asphyxiated, coughed up a piece of necrosed cartilage apparently from the cricoid. The next day, after another attack, another piece was coughed up, but swallowed. The patient seemed now so much relieved as to feel almost well, but unfortunately this improvement was of short duration, for on the 17th the voice became again very husky, and the cough more troublesome.

From the 20th to the 23d of January the patient had several severe laryngeal spasms, one on the 22d having almost terminated fatally.

When I saw the patient on the 23d of January, he had eaten little or nothing for twenty-four hours. He was breathing with great difficulty, and anxiously fearing the onset of another attack, which he felt must be fatal. It was evident that there was more necrosed cartilage to be thrown off from the larynx, and that this, together with ulceration of the soft tissues, was exciting the spasm.

I had come prepared to do tracheotomy, and, having gained the consent of the patient and his family, proceeded to the operation at 3 p.m., assisted by Drs. B. and B. There was considerable venous hemorrhage, and the introduction of the tube was not easy; but the hemorrhage ceased when the tube was fairly in the trachea, and the patient breathed freely after the tube had given exit to a considerable amount of sanguino-purulent matter. For the next forty-eight hours the patient was much prostrated, and able only to take milk and brandy, which were freely administered. The inner tube needed almost constant cleaning, the expectoration through it being profuse. By the 26th, however, the patient was able to take broth, and the administration of the iodide of potassium was again begun. On the 28th I removed the tube, a medium-sized German-silver one, and replaced it by a smaller hard rubber one. This tube proved much more comfortable, and occasioned little or no irritation up to the time of its removal on May 29th, a space of over four months. By March the patient was well on the road to recovery, and had taken daily most of the time since February from sixty to ninety grains of the iodide of potassium, together with the syrup of the iodide of iron and cod-liver oil. By the middle of March the expectoration had become simply mucous, and the cough slight. By the beginning of April the patient went about the house, and ate at the table. From time to time sprays had been used of zinc, carbolic acid, or sulphate of copper, as the occasion seemed to indicate. On May 27th, four months after the operation, the patient came to the city with a view to the removal of the tube. On May 29th, I took the patient to see Dr. Beverley Robinson, who made a laryngoscopic examination, and found the following condition of affairs:

The right vocal cord quite immovable, the left during phonation approaching to the median line, or a little beyond. During forced inspiration, the left vocal cord freely abducts, while the right remains motionless.

Both vocal cords, the epiglottis and the surrounding parts somewhat congested and thickened, but no ulcerations are anywhere to be seen. During the inspiratory effort, the glottic space is about one-half. Upon removing the tube, we noticed a deformity at

the right side of the larynx, over the cricoid, evidently occasioned by loss of tissue.

The patient was found to breathe quite freely without the tube, and with the wound closed; but it was deemed prudent to again insert it after leaving it out for half an hour. On May 31st, I again removed the tube, but as its reinsertion occasioned considerable irritation, I removed it permanently on June 1st. The opening in the trachea closed rapidly, and by June 8th admitted a fine probe with difficulty. No bad symptoms showed themselves, and the patient returned to the country on June 15th, feeling quite strong and well, having gained more than fifty pounds since the operation.

The following points of especial interest may be noted:

The patient was able to speak as well with the inner tube in place as when it was removed, and without closing the external aperture; the former fact apparently to be accounted for by the small size of the tube, which did not too much interfere with the passage of air through the larynx when the latter became patulous, but still was large enough to give that organ rest in respiration, the latter seeming to indicate that the window in the outer tube was useless to him; in fact, it seemed a detriment, since, when the inner tube was left out for an hour or two, granulations seemed to force their way down, and to render its re-introduction difficult. It seems, therefore, that while a large tube is indicated at first, when there is much broken-down tissue to be discharged, a smaller one is later to be preferred, as tending to permit an occasional use of the larynx during the process of cicatrization, and thus to avoid adhesions and stenosis.

In looking up the literature of this subject I have found ample justification for the operation, not only as a means of averting imminent death, but also with a view to the aid which it brings in the cure of the condition which renders it necessary. The uniform good results which have attended it even in the most extreme necessity, as well as the warning unmistakably given by the recorded cases of death while the operation was under consideration but before it was performed, point at once to its necessity and the danger of delay. We do not have here, as in diphtheria or phthisis, a disease for which there is too often no satisfactory after-treatment, but one for which, however terrible its manifestations, we possess a reliable remedy. By prolonging the patient's life we gain time for efficient treatment; nor is this all, for by diverting the air from the larynx we give that organ the rest which is almost necessary—often quite so—to the process of repair and cicatrization.

McDowell, in *The Medical Press and Circular* for March 28, 1877, has an excellent article entitled "Tracheotomy and its Advisability in Certain Forms of Syphilitic Disease," in which he adduces cases and arguments in favor of the operation. He says:

"There are two forms of syphilitic disease of the larynx in which tracheotomy may be called for: the phagedenic and the serpiginous.

"The former is much the more common, and will present itself generally in naturally weak and broken-down subjects. It is rapid and destructive in its progress, often eroding the cartilages of the larynx. It requires active local as well as general treatment.

"The serpiginous form, on the contrary, most commonly occurs—when it does present itself, which is very rarely—in strong, healthy individuals. It is much slower in its progress, and carries before it an effusion of specific lymph. It is in the former that large doses of the iodide of potassium and iron, com-



bined with opium, and liberal diet, will prove most serviceable. In the latter a judicious administration of a carefully sustained course of mercury will give the best results."

McDowell also quotes Bregant as saying: "When ulceration has come and seems to be unaffected by general treatment, the subject of tracheotomy claims serious consideration; for, unless the organ of voice and respiration can be kept quiet, repair will not go on, and as long as progressive ulcerative disease exists, a sudden spasm of the larynx is imminent, and also the death of the patient. The operation should, however, only be undertaken when the disease is steadily progressing in spite of treatment, and it is clear that the larynx will be destroyed as a vocal as well as a respiratory organ, unless some step be taken to stop its progress; and of these steps there is none other equal to tracheotomy, for all surgeons are familiar with the fact that, even under the most extreme conditions of disease, repair goes on in the larynx directly the tube has been introduced, and physiological rest is given to the organ."

Mr. Hilton says, quoted by the same writer: "In chronic laryngitis, cured by tracheotomy, the cure is not effected by opening the larynx, but by giving the larynx rest—the operation being performed, primarily, to secure continuance of life by allowing the patient to breathe through the tube; secondly, to give rest to the diseased part. The air is diverted away from the larynx, giving the larynx an opportunity to recover itself."

The cases mentioned by McDowell are briefly as follows:

CASE I.—A married woman, who had contracted syphilis many years before, was admitted to the Mercers' Hospital suffering from continual dyspnoea, with almost complete aphonia, and attacks of laryngeal spasm imperilling life. For a time the disease was abated, but a few months (Feb., 1876) after the patient was readmitted to the hospital in such a condition as to lead to a consultation with reference to tracheotomy.

Five o'clock P.M. was agreed upon as the time for the operation. At the appointed time the patient was in extremis; but the operation was successfully performed, and the patient discharged cured on the 28th day, the tube having been removed on the 9th day after the operation.

This patient afterwards bore a healthy child.

2d. Two cases of death from laryngeal spasm, from extensive syphilitic ulceration of the larynx, are also noted by McDowell.

The first patient suffered from tertiary disease, was prescribed for one day, and died the next, before the operation could be done.

The second patient suffered also from tertiary ulcerations of the larynx. There was great difficulty in breathing, and occasional laryngeal spasm: the latter relieved by chloroform inhalations. The patient was admitted to hospital, and tracheotomy was discussed, but deferred until the next day; but during the night the patient died from laryngeal spasm.

Two cases of syphilitic caries of the laryngeal cartilages are very instructively compared by Cartier and Mason in *The Lyons Medical*, No. 39, for 1876. The first case occurred in the service of M. le Dr. Bergeret, and is briefly as follows: M. —, æt. 45, suffering from tertiary laryngeal ulceration, tracheotomy was done the first time on July 20, 1870, for asphyxia. On Aug. 15th the second operation was done, and on Aug. 30th the third, under similar circumstances.

Eight days after the third operation a piece of ne-

crossed cartilage was expelled through the tube, and on Oct. 1st a larger piece was expelled through the mouth. After this, under proper treatment, the patient recovered good health; but the ulceration and consequent cicatrization had been so extensive, that the larynx was not permeable to air, and the tube had to be retained.

This patient lived six years, and died afterwards from lack of proper attention, the tube having ulcerated through the œsophagus. It is also evident that one operation should have been sufficient in this case, as in all such cases the tube should be left in place until all active disease has ceased.

The second case is as follows: In May, 1876, a girl, æt. 28, presented herself at the Lyons Hospital for treatment, in the service of M. le Dr. Merle. She suffered from aphonia and very difficult and painful respiration of several weeks' duration.

The patient, not wishing to remain in the hospital, was given a prescription containing iodide of potassium.

Early in June the patient, no better, came for admission.

The medicine was continued, and a laryngeal examination decided upon next day, with a view to tracheotomy. During the night, however, the patient became much worse, and died before the interne could perform the operation.

The autopsy revealed great œdema and ulcerations over the cricoid and in the ventricle. This had destroyed the inferior vocal cords, and at their bases the cartilages were ossified.

In the *Lyons Medical Journal*, No. 26, page 262, for 1876, a successful case is reported. The case occurred in the service of M. Litievant, and is reported by M. Quiaac. The patient had contracted syphilis in 1873, three years before coming under M. Litievant's observation. He received no treatment for the primary sore, but three months later entered a hospital, and was treated for secondary laryngeal trouble, and left improved. Had some laryngeal trouble for the next two years, but in January, 1876, became rapidly worse, and symptoms of asphyxia showed themselves.

On January 9th had two attacks, and on 10th entered hospital, where he had another, becoming asphyxiated and unconscious. On the 11th, at ten A.M., he was found in a dying condition—respiration suspended, cyanosis, and insensibility complete; pulse imperceptible.

Tracheotomy was performed, and gradually respiration was re-established.

The patient recovered consciousness in one hour. For the next eight days much pus was expelled through canula, which was changed on February 4th for a fenestrated one. The patient could now breathe through the larynx, and was encouraged to do so, and to speak. On February 15th the tube was finally removed, the patient being able to breathe quite freely, and to speak, the voice being somewhat hoarse. On February 26th a laryngoscopic examination showed some white spots in the vestibulum glottidis. The epiglottis was normal, and vocal cords nearly so.

On March 10th, two months after operation, the voice was good and strong, and the patient's general health good. Iodide of potassium had been given in from thirty to forty-five grains a day since the operation.

In tracheotomy we have then a most valuable aid in the treatment of the graver syphilitic lesions of the larynx, whether it be for œdema or ulceration, or the consequent contraction which often follows the latter

condition. By it we may at least prolong life, and thus, in many cases, gain time for curative procedures. In some cases the tube may have to be worn during life, but even in the worst cases this cannot be often necessary, when we remember the brilliant results of the instrumental treatment by dilation obtained by Schroetter, of Vienna, in laryngeal stenosis.

*Note 1.*—I take pleasure in expressing my thanks to Dr. J. H. Ripley, who sent me, after the operation, an experienced nurse from St. Francis' Hospital, who by close attention during five weeks greatly aided in the patient's recovery.

*Note 2.*—The nature of the case is my obvious reason for not giving the full names and addresses of the physicians who kindly assisted me at the operation.

*Note 3.*—The patient called to see me on October 31st, and reported himself as feeling quite well, and having enjoyed excellent health since I had last seen him in June.

S. S. J.

## UNUSUAL EFFECTS OF QUININE.

By FREDERICK D. LENTE, M.D.

In the "Reports on the Progress of Medicine" in the *New York Medical Journal* for August, 1878, is a notice of several cases, in which, after the administration of quinine in moderate doses, a profuse exanthem appeared which lasted several days, and was followed by desquamation lasting from two to three weeks. Two of the cases were observed by Prof. Koebner, of Breslau. In one case there was a repetition of the phenomena after a repetition of the dose. Dr. Ricklin, who reports the cases in the *Gazette Médicale*, was able to discover only four analogous cases in medical literature. But the "Report" states that Dr. Pflüger, of Berne, found the eruption to appear after the administration of the decoction of cinchona as well as after sulphate of quinine. In one of the cases the eruption resembled *urticaria*, but in this case the desquamation lasted three weeks. In all the cases the general symptoms were severe and even alarming; in one, that of a physician who took a gramme of quinine for facial neuralgia, "there was intense fever, delirium, dyspnea, and all the signs of pulmonary congestion." Dr. Ricklin considers these cases important, "especially in view of the large number of pretended relapses of febrile exanthemata, particularly of scarlatina, which have lately been recorded."

Serious symptoms following the use of quinine are so rare (though not unfrequently alleged by non-professional persons, especially those under the care of homœopathic physicians) that the writer deems it of sufficient interest in this connection to refer to a few cases which came under his own observation a few years ago while practising in Cold Spring.

A delicate laundress in the employ of a neighbor of the writer required a tonic, and when he proposed quinine she stated that it had produced dangerous symptoms when administered on a former occasion. One of the ordinary elixirs of Calisaya was accordingly prescribed, and in a diminished dose. On his return home after an absence of some hours, his associate, Dr. G. W. Murdock, informed him that the first dose produced very unpleasant symptoms, and that, after the second, he was summoned and found her in a comatose state, with cold extremities, hot head, and symptoms of cerebral congestion. He combated these alarming manifestations with vigorous measures, including cupping of the temples, hot stimulating pediluvia, etc., and was obliged to remain with her four hours before she was out of danger. She after-

wards informed the writer that a sister had been similarly, but not so seriously affected by a small dose of quinine.

Soon after this occurrence, the writer prescribed a moderate dose of quinine for a female domestic in the family of a gentleman boarding at Garrison's. He then proceeded to West Point, and some hours after, on his return, met a messenger who had been sent to find him with the message that the girl had been taken suddenly very ill. He found her recovering from the attack, which had presented symptoms similar to those above narrated, but in a much milder degree.

A lady patient of the writer's in the same neighborhood, informed him that quinine always weakened instead of strengthening her. He tried the experiment with small doses without her suspecting it, but she soon detected it by the peculiar prostration which it produced. He then tried the citrate of iron and quinine, but even this was detected in the same manner. At about the same time a case occurred in the practice of a medical acquaintance on Staten Island. A lady patient informed him, when he proposed to administer quinine, that it had always produced alarming symptoms; he, however, rather ridiculed the idea, and said he would give her a small dose and remain with her to observe its effect. He did so, and soon had reason to regret his experiment, as he was himself alarmed at the symptoms. What they were the writer did not learn, as the case was related to him by a friend of the patient.

These cases all occurred within a twelvemonth, and never before or since, in a large quinine experience, and with doses of every size (and he has recorded cases where an ounce was taken, *vide* H. C. Wood's *Mat. Med.*), has the writer met with a similar case.

Apropos of the eruptive phenomena, it may be well to state that during the prevalence of malarious fever in Cold Spring, some years ago, the attacks, in several instances, were ushered in by a profuse and typical *urticaria*, which disappeared quite promptly, whether in consequence of the full doses of quinine administered, or the full development of the febrile paroxysm it is impossible to say. In one female patient, who had repeated attacks of the fever, the latter could always be predicted by the appearance of the eruption. Last summer a gentleman at Saratoga Springs, a healthy man, applied to the writer for relief from a most troublesome attack of acute *urticaria*, for which, on close inquiry, he could ascribe no cause. He had not been exposed to miasmatic influences, as far as he was aware. He had taken a few powders prescribed by a homœopathic physician, but without any relief. His legs were considerably swollen, his face somewhat so. General baths of tepid water, impregnated with borax and carbonate of soda, were prescribed, which relieved the urgent symptoms. In view of the usual tardiness of the ordinary treatment of these cases, and also believing that we must look to the nervous system for the pathology of the disease, quinine in doses of ten grains was prescribed, to be repeated *pro re nata*. This was effectual. Relief would follow and continue for some hours. Then the eruption would commence to reappear, and, on a repetition of the dose, would soon commence to decline. After five or six doses he was entirely relieved. He continued well when last seen a couple of weeks later. There was no desquamation.

It is noteworthy that all the writer's cases, in which severe or unpleasant symptoms followed the ingestion of quinine, occurred in the person of females. The sex is mentioned in only two of Dr. Ricklin's cases.



One was a male, the other a female. Should quinine prove to be a remedy for urticaria, it might, in the light of these histories, be taken as an illustration of the doctrine of *similia similibus curantur*.

Since writing the above, and on taking up a late number of the Cincinnati *Lancet and Clinic*, it is noticed that Dr. G. W. H. Kemper asks the question: "Does sulphate of cinchonidia cause urticaria and puffiness?" He states that both he and his partner have observed the unusual number of cases of urticaria, especially among children attacked with malarial fever. It is quite common, he states, for families to use the sulphate of cinchonidia for fevers, and quite as common to be consulted by them for hives, nettlerash, etc., also puffiness of face, eyelids, and extremities, independent of the urticaria. He says: "I have seen nothing on the subject, but have arrived at the conclusion that the sulphate of cinchonidia is the cause of the urticaria." He says, however, that he has known an individual, after taking sulphate of quinine, always to suffer from an erythema to such an extent that general desquamation followed. In this case, cinchonidia had the same effect. He adds: "I would be glad to hear from members of the profession upon this interesting and practical question. I formerly thought that *malaria* caused urticaria, but have abandoned that idea."

In the last edition of Ringer's "Hand-book," it is also noticed that he says: "Quinine, in one of my patients, always brings out a uniform red rash over the whole surface of the body. . . . Desquamation, as free as after a sharp attack of scarlet fever, always follows the rash." He states that "it is well known that quinine can produce urticaria."

PALATKA, Florida, Nov., 1878.

## Reports of Hospitals.

### ALBANY CITY HOSPITAL, ALBANY, N. Y.

SERVICE OF DR. JOHN SWINBURNE.

(Reported by WILLARD H. MORSE.)

#### EXCISION OF THE ASTRAGALUS.

Excision of the astragalus, originally performed two centuries ago by Fabricius Hildanus, and since then repeated in numerous instances, has not met with much general favor among modern surgeons. A careful study of the literature of the subject shows that in comparison with other excisions, this one has been performed in a limited number of cases; and that although these statistics show in many cases highly satisfactory results, yet there have been, perhaps, as many fatal; and others in which the disease has returned, as in caries and necrosis; or, as in accidents, destructive inflammation has set in. Such eminent authorities as Gross, in this country, Sentin. in Belgium, and Giralde's, in France, have doubted the feasibility of the procedure on the ground that the facts from statistics constitute valid objections, and they urge the question whether sacrifice of the limb would not, in the majority of cases, be preferable. The dangers of the operation in after-results, and the decided difficulty of excision, with the chances of relapse or violent inflammation, are met on the other hand by the argument in favor of amputation. Other surgeons, as Syme, Bigelow, and Moreau, consider the chances of success greater than the dangers, and point

with pride to the excellent recovery made by a large number of patients where the bone was excised.

Possibly, as a recent writer suggests, we should make a distinction, and exact when it is required for caries and necrosis, and amputate in compound fracture or luxation, for it seems proven that relapse in caries is by no means so formidable or frequent an accident as is inflammation, erysipelas, and gangrene, which supervene in a large percentage of excisions for traumatic causes. Nevertheless the particular circumstances of the case, and the common sense of the surgeon, should always direct to the course to be adopted.

The operation was performed at the Albany (N. Y.) City Hospital, September 7th, by Dr. John Swinburne, assisted by Dr. Lewis Balch. The patient was a middle-aged man suffering from caries. The first indication of the lesion was a swelling of the ankle, followed by an abscess, the contents of which were evacuated, and a seton introduced. Gradually the symptoms of caries became more marked, and systematic treatment proving useless, Dr. Swinburne advocated, after judicious consideration, the operation of excision. The joint was exposed at its anterior aspect by a flap of integument being raised, and this was followed by detaching the ligaments of the bone by the knife. The bone was then extracted by the forceps, and after bringing the foot to a right angle with the limb, the operation, which occupied forty minutes, was completed. An Esmarch's bandage controlled the hemorrhage, and the muscles were relaxed owing to the anæsthetic administered, so that the operation was easily effected, despite the many attendant dangers.

The limb was flexed at the knee so as to prevent retraction of the heel by the gastrocnemius. The wound kindly healed, the granulations having a healthy appearance. Two weeks from the day of the operation Dr. Swinburne reported the patient as doing well. On that day the limb and ankle were encased in a plaster-of-Paris bandage that the joint might become able for use as early as possible. An opening was left in the bandage, just over the situation of the wound, that healing might go on unimpeded. Antiseptic treatment was followed, nitric and carbolic acid lotions being used.

Although the joint is necessarily weak, and the tenderness extreme, the patient is doing well, and ultimate recovery with a comparatively useful limb will attest the success of the operation.

### THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Reported for THE MEDICAL RECORD.)

#### DYSPEPSIA—ITS TREATMENT.

Among drugs, arsenic, in small doses, gradually increased, is a remedy of extreme importance. Where there is torpor of digestion joined with very marked sympathetic nervous disturbances, the following prescriptions are of great value:

1. R. Sodæ bicarb. . . . . ʒiij.
- Acid hydrocyan. dil. . . . . gtt. xlviii.
- Tinct. valeriani . . . . . f ʒj.
- Syrup. zingiberis. . . . . f ʒij.

M.

Sig. A teaspoonful thrice daily, in water.

2. R. Quinine sulph. .... gr. xvi.  
 Strychnine sulph. .... gr. i.  
 Acid. muriat. dil. .... f ʒ jss.  
 Syrup. zingiberis. .... q. s. ad f ʒ iv.

M.

Sig. Two teaspoonfuls in water, right after meals.

Where there is marked hepatic disturbance, the following prescriptions are excellent :

3. R. Acid. muriat. dil. .... f ʒ ss.  
 Tinc. nuc. vom. .... f ʒ ss.  
 Comp. infu. gentiane. .... q. s. ad f ʒ iv.

M.

Sig. A teaspoonful in water after meals.

4. R. Bismuth. subnit. .... ʒ jss.  
 Pepsinæ .... ʒ jss.  
 Strychnine sulph. .... gr. j.  
 Tinct. cardamom. comp. .... q. s. ad f ʒ iv.

M.

Sig. A teaspoonful thrice daily, in water. If there is much flatulence, an increase is made in the quantity of bismuth and pepsin. If the case be merely one of gastric atony, the amount of strychnia is increased.

Where there is marked gastralgia, two to five drops of Fowler's solution are administered during the paroxysms. If this does not control the pain, a blister two inches square is applied to the epigastrium, and followed by a belladonna plaster six inches square.

Where the stomach is weak, its muscular action impaired, and its nerves over-sensitive, but little food should be taken into it at a time. The best diet is skimmed milk, half a pint every four hours. When milk is not well digested, lime-water is combined with it. Such foods as coffee, tea, and tobacco must, of course, be given up absolutely and at once. A sovereign article of diet is buttermilk. In buttermilk the casein of milk is coagulated and broken up, so that the stomach is spared two steps of the regular process of digestion. Another excellent preparation of milk is koumyss. It contains a good deal of carbonic acid. In all cases the stomach's work should be made easier by a diet consisting of eggs, milk, starchy vegetables, stewed fruits, and a little butter, with stale bread.

#### INFLAMMATIONS OF THE NASAL PASSAGES, EUSTACHIAN TUBES, AND MIDDLE EAR.

A solution of zinc is applied through the catheter. To do this, the catheter is first introduced, and then three or four minims of a solution ( $\frac{3}{4}$  gr. to the f ʒ j.) of zinc is dropped into it. The zinc is forced through the catheter into the ear by means of Politzer's bag. In some cases the nitrate of silver is applied to the diseased surface by means of a post-nasal syringe introduced behind the soft palate. In old cases of catarrh of the middle ear, where the secretions have ceased, the attempt is often made to stimulate the membrane. This is done by means of ether. From 8 to 10 gtt. of ether are dropped into Politzer's bag. The patient takes some water in his mouth, and holds it there. A nose-piece is put in his nose, and just as he is swallowing the water, the ether is squeezed through the nose-piece into the passages.

With regard to constitutional measures: where the disease has been hereditary, and has run through many generations, the case will only go on from bad to worse, unless something be done to bring up the general tone. If there be any strumous dia-

thesis, the bichloride of mercury is given internally for a long time, and in small doses.

The following is a good form of administration of the drug :

- R. Hydrarg. chlo. corrosivi. .... gr. ʒi.  
 Elix. cinchome. .... f ʒ ss.

M.

Sig. To be taken two or three times a day, after meals.

Iron and strychnia should be given in pill form. In old people, where there is very decided lessening of the secretions, ten-grain doses of the muriate of ammonia are given thrice daily. Before administering this dose, it should be dissolved in f ʒ j. of the elixir of cinchona, and this again suspended in half a pint of acid water. Muriate of ammonia, like iodide of potassium, is never administered to the stomach unless in a highly diluted state.

#### IDIOPATHIC PERITONITIS.

If the case is brought into the wards at the very inception of the disease, the patient is bled thoroughly from the arm. If the disease is of many hours' standing, the abdomen is covered with as many leeches as it will hold. After venesection, calomel is administered in doses of from one-quarter to one-half of a grain every hour. In connection with the calomel, opium is given in large doses. Opium induces quiet and prevents the exhaustion consequent upon horrible physical pain. Enough opium is given to keep the patient on the verge of narcotism. It had better be given in liquid form.

In the latter stages of peritonitis, blisters are always employed.

The first thing done, however, when the leeches have been removed, is to apply poultices; whether they be hot or cold makes but very little difference. Where there is a very marked tendency to feverishness, cold poultices are used. If the abdomen is too tender to bear the weight of the ice-bag, light flannel cloths wrung out of ice-water may be used. On the other hand, a warm-water dressing may be employed with advantage in very many cases. Warm water acts not only as a local derivative, but some of it probably oozes through the intervening tissues into the abdomen, and so acts directly upon the inflamed peritoneum as a soothing agent.

After the abdomen has been thoroughly poulticed for two or three days, blisters are used, provided the temperature of the body has not remained high. The blister should not be a small one—eight inches by ten makes a very good size.

Where there is any septic element in the disease, quinia is used with great benefit. Generally the stomach is not strong enough to bear it.

The patient must have but very little food in the first few days of the attack. The food which is given is that which leaves the least residuum of undigested matters, and therefore causes the least amount of peristaltic action on the part of the intestines. Milk, in repeated small doses, is the food usually given. At the end of a few days, solid articles are allowed. When there are symptoms of exhaustion late in the course of the attack, beef-tea is given as a stimulant. Alcohol is not only powerless, but even dangerous in the early stages of the disease. A few doses of brandy in the first few days of an attack of peritonitis may produce death.

With regard to the opening of the bowels during convalescence, a purgative or an enema is never used. These bring violently into play all the muscles of the



abdomen. Very often there will be a spontaneous movement on the fifth or sixth day without any medicine at all. If there is not such an opening, a small dose of castor oil is given at the end of ten days. If there is retention of urine, the water is, of course, drawn off by means of the catheter.

Great care is had during convalescence from peritonitis to prevent a relapse. No violent or gymnastic exercise is allowed for a long time afterward.

## Progress of Medical Science.

**CUPRUM AMMONIATUM IN THE TREATMENT OF NEURALGIA.**—M. Bourdon has for several years used with success the ammonio-sulphate of copper in the treatment of neuralgias that prove rebellious to the ordinary methods of cure. M. Ferréol, of the *Hôpital Lariboisière*, has lately had recourse to the same drug in two cases of facial neuralgia, in which hypodermic injections of morphine and aconitine, arsenical preparations, the nitrate of aconitine, and tincture of gelseminum had proved utterly useless. He administered it in doses at first of  $1\frac{1}{2}$  grain, and then of 2½ grains per diem. The relief obtained was so rapid that M. Ferréol felt himself constrained to publish his cases.—*Bulletin de Thérapeutique*.

**CASE OF PSORIASIS TREATED BY AN OINTMENT OF CHRYSOPHANIC ACID AND BY PHOSPHORUS.**—R. Steele reports the case of a workman, fifty-three years of age, who had suffered for eight years from a psoriasis of the elbows, forearms, and right hip, which had defied all treatment. He was ordered  $\frac{3}{4}$  grain of phosphorus internally three times a day, and inunctions with a salve, consisting of eight parts of chrysophanic acid to thirty parts of lard. The improvement was rapid, and after two months and a half the eruption had entirely disappeared.—*Med. Times and Gazette*.

**DEATH FROM EXPLORATION OF THE RECTUM BY THE INTRODUCTION OF THE ENTIRE HAND.**—Dandridge and Connor examined the pelvis of a man by Simon's method, with a view to obtain accurate information concerning a psoas abscess. They assert that absolutely no force was used, and that they did not go higher than the bifurcation of the aorta. Immediately after the exploration, however, symptoms of peritonitis set in, and the patient died. At the autopsy a rupture of the peritoneum, five inches above the anus, was discovered. The mucous membrane was also torn above the sphincter. This is another case proving that Simon's method is not entirely harmless.—*Deutsche Med. Wochen.*

**ELASTIC CHAYON OF NITRATE OF SILVER.**—Dr. Pajot takes a laminaria-tent, two millimetres ( $\frac{1}{2}$  in.) in thickness, dips it in some thick mucilage, and rolls it in finely powdered lunar caustic. When it dries, he has a crayon, of the usual thickness of a stick of nitrate of silver, which can be introduced into the cavity of the uterus without fear of breakage. In the same manner applications can be made to other cavities, and, if necessary, with stronger remedies.—*Allg. Med. Cent. Zeit.*

**TREATMENT OF SUPPURATING CAVITIES BY INJECTIONS OF SALT-WATER.**—M. Houzé de l'Aulnoit, of Lille, draws attention to the value of salt-water as an injection into suppurating cavities. He cites a case of empyema in which the operation of thoracentesis

was performed nine times, the cavity being washed out each time with some antiseptic fluid, but all without success. Finally he decided to try a concentrated solution of common salt, which has a specific gravity one-sixth greater than that of pus, a property which should enable it to displace the pus and bring it to the surface. The event proved the correctness of the theory: the saline injection caused the discharge of a large quantity of pus that had remained unstirred by the previous injections, and the cure was complete and permanent. M. Houzé de l'Aulnoit has used the saline injections in several other cases of suppurating cavities, with the same results, and has found the same solution equally useful in the treatment of wounds. The injections are not very painful. With regard to the strength of the solution used, it should be saturated if the action of density be required; otherwise, three to six ounces of salt to the quart are sufficient. Pure white salt should be used, as impure salt contains sand, which would prove irritating. The irritating action of sea-water on wounds is probably due to the sand it contains.—*Le Progrès Médical*.

**EPISTAXIS ARRESTED BY SUBCUTANEOUS INJECTIONS OF ERGOTINE.**—Dr. Porak reports three cases of persistent epistaxis in each of which the hemorrhage was controlled by a single injection of ergotine under the skin. He used a solution of 2 grms. (30 grs.) of Bonjean's ergotine in 30 grms. of glycerine, and injected 20 drops into the lip or cheek.—*La Tribune Médicale*.

**CAMPHOR AS A HYPNOTIC.**—Wittich has repeatedly administered camphor to relieve the insomnia which accompanies certain forms of mania, hysterical insanity, and hypochondria. He has found that, under such conditions, camphor acts much better than chloral, morphine, or bromide of potassium. He administers it by hypodermic injection. He dissolves it in olive oil, and the dose which he recommends is from one to one and one-quarter grain. Small doses are more certain to produce sleep than large doses. The sedative effect, as a rule, appears rapidly, and the sleep produced lasts several hours. The injection is to be repeated when the restlessness reappears.—*Jour. de Méd. de Bordeaux*.

**A CASE OF PSEUDO-HERMAPHRODITISMUS FEMININUS, WITH ALVEOLAR SARCOMA OF THE UTERUS.**—The subject of this account lived and worked as a girl, but her coarse voice and rough nature gave rise to the suspicion that she was a man. She died suddenly, at the age of 25 years. The abdomen was very prominent; below the symphysis there was a penis-like body, with a glans, but without a prepuce, which presented on its under surface a shallow furrow. This led into a narrow urogenital sinus, from which the sound penetrated, in front, through the urethra into the bladder, and, behind, into a pear-shaped vagina, a little over three inches in length. From the centre of the vaginal arch sprang the uterus, which was shaped like the finger of a glove, and was four inches in length; its posterior wall was incorporated in a very extensive tumor, of soft consistency (medullary alveolar sarcoma), which filled the inlet to the true pelvis. The left ovary was found in the left inguinal canal; it was as large as a plum, but presented no recognizable glandular tissue. The right ovary could not be found, and had probably been swallowed up in the tumor. The kidneys and abdominal lymphatic glands presented metastatic deposits. At one spot, where the tumor was unusually soft, it had ruptured, and death had resulted from hemorrhage into the abdominal cavity.—*Centralblatt f. d. Med. Wiss.*

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE YELLOW-FEVER COMMISSION.

THE coming meeting of the American Public Health Association, which is to be held in Richmond, Virginia, commencing November 19th, will doubtless be an interesting and profitable one. Not only is this result to be predicated on general principles, but there is a special reason why the deliberations of this learned and influential body should on the occasion referred to be of more than ordinary importance. As has been previously announced, the meeting is to be given up almost entirely to the discussion of the report of the Yellow-Fever Commission appointed by the Supervising Surgeon-General of the Marine Hospital Service. For a considerable time the gentlemen of the Commission have been collecting facts bearing upon the cause and prevention of yellow fever, and have been studying the particular phases of the epidemic in the localities in which the disease has been most prevalent. It is natural, under the circumstances, to expect that the report will be rich in information concerning many points which, from a sanitary point of view, may be of the utmost value. Certain it is, at all events, that the opportunities for fresh, if not original investigations, have been extraordinary, not only on account of the extent of the epidemic, but on account of the well-known ability of the members of the Commission and their full appreciation of the necessities of the occasion. In devoting the coming session of the Association to the consideration of reports and propositions bearing upon the subject in question, the members have shown an appreciation of the wants of the public, which cannot fail to react favorably upon any recommendations which may be made. In regard to the latter, great care should be taken by the Association that no opinions are offered which are not the result of the gravest deliberation and the calmest judgment. To this end, special pains should be taken to utilize all the information offered, not only that of the Commission itself, but that of voluntary con-

tributors. The Association seems, however, to be alive to this necessity by asking for abstracts of papers, and by enjoining the preliminary examination of reports in committee.

The medical profession is naturally much interested in the success of this meeting of the Association, as upon such success depends a great deal of necessary and future legislation upon sanitary matters. It so happens that the Association is a scientific organization, which stands in the relation of an advisory body to the public at large. Composed in part of medical men who are in good repute as sanitarians, and in part by distinguished laymen interested in questions of general hygiene, it is an exponent of professional sentiment upon questions of public health and preventive medicine.

This being the case, the more effectually the Association can rise to the dignity of the present occasion, and the more conclusively it can prove by its deliberations the necessity of the reformatory measures which it may advocate, the better will be the chances for carrying them out by suitable legislation. We are quite confident that the result of the forthcoming meeting will be everything that can be anticipated, and that the report of the Commission will be of such a character as to prove the necessity for even more extended investigations of the epidemic, which must necessarily be carried on under the direct patronage of government by special sanction of the Congress of the United States.

No better opportunity could be offered than the present one for the making of necessary recommendations. Never before has the public at large been more interested in the suppression of any epidemic. Within the past two months the pestilence has marched fifteen hundred miles along the tortuous course of great rivers, until even the mountain city of Chattanooga has been smitten by it; has attacked one hundred and twenty-five thousand persons; has caused more than twelve thousand deaths; and has damaged the commerce of our nation to the extent of over two hundred millions of dollars. Under the circumstances, is it not reasonable to suppose that the people will be anxious to hear any suggestions which may be offered for the prevention of future epidemics, that the daily press will be ready and willing to herald the results of the deliberation to the world, and that upon such results must depend the creation of that public sentiment which shall not only invite, but demand the necessary legislation against future contingencies? Can we have any better reasons for wishing that the coming meeting of the American Public Health Association may be a brilliant success?

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### BODY-SNATCHING.

THE recent robbery of the grave of the late A. T. Stewart gives a complexion to body-snatching which it has heretofore never possessed even in the palmist



days of Burke. It is certainly not venturing too far to say that from the common-place level of supplying material for the dissecting-room, resurrecting has risen to a fine art, from which large sums may possibly be realized.

Now that a precedent is established, it is impossible to say what the end may be, and to what lengths future criminals may not venture for the purpose of levying blackmail. In the instance in question, a body was stolen at night from a graveyard in the heart of the city, in a populous district, within a few feet of at least three thoroughfares, and while guarded, theoretically at least, by "the model police force of the world." Such being the fact, what may not be done with similar ends in view in the isolated cemeteries over the country; and what may not be ventured under the present premium of notoriety, and with the usual chances of large rewards for such criminality? From a purely professional point of view, there is reason for congratulation that the body was not stolen for anatomical purposes, and that the medical colleges here or elsewhere have been in no way connected with the transaction. This fortunate circumstance is due to the fact that the resurrectionists postponed their attempt until the body had been buried fifteen months, and was in such a state of decomposition as to be presumably useless for study.

#### THE SUPERVISION OF NURSES OF THE INSANE.

PROBABLY no better illustration of the necessity for the constant supervision of nurses of the insane can be given than that afforded by a recent investigation of charges against an attendant in the asylum at Columbus, Ohio. It seems that the attendant in question, a Mrs. B., conceived an original idea of disciplining patients, which was easy of application and very effectual. Whenever the patients in her ward became excitable they were stripped, thrown into a bath-tub, and their heads held under water until strangulation was threatened. This operation would be repeated until the patient, worn out from exhaustion, and almost limp, would be forced to promise obedience at all times and under all circumstances. Furthermore, the victim was warned that, in case she disclosed the method of punishment, she would be drowned. It is needless to say that, after practising this system of torture for more than a year, and extending it into the other wards, the discipline of the patients was such that the slightest motion of the finger was sufficient to insure the most abject obedience. Strange as it may seem, the physicians were in entire ignorance of the matter, and when they heard screams from the bath-room, were satisfied with the information that a patient was only a little troublesome. Now, when the brutality of this and other nurses is fully exposed by one of their number turning State's evidence, the superintendent of the asylum and the Board

of Directors assure the public that "no stone will be left unturned to rid the institution of this class of inhuman keepers, should any remain."

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, October 23, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

ARTICULAR OSTITIS OF KNEE-JOINT—BONY ANCHYLOSIS—NECROSIS OF FEMUR—AMPUTATION OF THIGH.

DR. GEORGE F. SHRADY exhibited a specimen of disease of the knee-joint which he had removed, October 17th, by amputation of the thigh. The patient, a fair-haired, delicate lad of seventeen years of age, of German parentage, was admitted to the Presbyterian Hospital during the latter part of September.

During May, 1876, and without assignable cause, he was seized with a severe pain over the inner condyle of right femur. No distinct swelling of the part showed itself until four or five days afterward. The pain continued until the end of the fifth week, when an abscess upon the outer side of the thigh and just above the knee opened itself. Within four or five days after, a corresponding opening appeared on the inner aspect of the thigh. From that time until his admission to the hospital, three other openings formed in the neighborhood of the joint, two above in the anterior aspect of the thigh, and one below over the inner side of condyle of tibia. In the meantime the inner condyle of the femur expanded, the overlying tissues became consolidated, the leg gradually flexed itself upon the thigh, and the joint became ankylosed. When admitted to the hospital the knee presented the characteristic appearances of advanced tumor albus. There was a large, hard, globular swelling on the inner aspect of the knee, which involved the inner condyle of the femur, principally. No motion in the joint could be detected.

At the bottom of the opening above the inner condyle of the femur a sequestrum was discovered, the involucrum of which extended for a distance of seven inches above the articulation. Bare bone was also found by introducing a probe through the opening just above the upper line of the patella.

The examination of the other sinuses resulted negatively as regards dead bone. The joint itself was enlarged and contained a moderate amount of apparently gelatinous material; the overlying tissues were indurated and thickened; the patella was relatively displaced externally, and the leg partially dislocated outward and backward.

The general condition of the patient was much below par, and he seemed to have approached a time when some operation was demanded to save his life. It may be stated in passing that his liver was normal in size, that he had no albuminuria, and that there was no history of hereditary syphilis.

The question of exsection at first presented itself, but there were several circumstances that militated against the performance of such an operation. In the first place, the disease of the knee-joint appeared to be too extensive to guarantee any reasonable limit for the section. Secondly, the necrosis of the lower shaft of the femur, probably extending into the joint, necessarily offered a serious complication to such an opera-

tion; and thirdly, the patient's general condition did not appear to warrant the risk of a protracted cure with the possible attendant consequences of prolonged suppuration. Accordingly, amputation was performed. The patient did well since the operation, the wound for the most part having been healed by first intention.

The specimen, which had been nicely prepared by Dr. W. H. Porter, the curator of the hospital, presented several points of interest. The lower portion of the shaft was thickened, hypertrophied, partly eburnated, partly softened, and in a depression upon its posterior aspect contained two or three irregular sequestra. From the cavity which contained these pieces of dead bone sinuses ran in different directions to communicate with the openings which existed externally. The internal condyle of the femur was expanded above the level of the epiphyseal line, softened, and apparently contained degenerated inflammatory material. The same was true of the external condyle, but to a much less extent. A complete bony ankylosis existed between the inner condyle of the femur and the corresponding condyle of the tibia. The articular cartilages of external condyles of the femur and tibia were eroded in one or two places, and in the remaining portions thinned and semi-transparent. In the substance of the epiphyses of both the femur and tibia were circumscribed deposits of fatty material. This condition was also noted in one or two spots in the femur higher up. At one or two points the tissue of both epiphyses showed rarefaction. The condyles of the tibia were not much enlarged, but the bone below was remarkably atrophied, the compact tissue being a mere yielding shell. The tissues of the posterior portion of the joint were agglutinated together in one confused mass of softened gelatinous material. The patella was immovable, and was fused with the femur. The ligamentous tissues around the joint were infiltrated with fibrinous exudation, and more or less adherent to adjacent parts, but particularly to the internal condyle.

The medullary canal of the femur was irregular, due to the encroachment of inflammatory processes connected with the sinuses in the substance of the bone. At the point of section of the bone the canal was obliterated, the saw having just cleared the diseased tissue below.

The clinical history and pathological conditions of the specimen appear to point to a periostitis of the lower portion of the femur as the primary lesion, the spongy tissue of the articular extremities becoming secondarily involved in osteitis, and in turn destroying the portions of the articular cartilage and producing bony ankylosis. With such a condition of things, and such an extent of disease, amputation would appear to be the only remedy.

#### EXCISION OF THE HEAD OF THE FEMUR IN INTRACAPSULAR FRACTURE.

DR. JOSEPH W. HOWE presented a specimen of the above with the following history:

Mary Degnan, æt. 62, was admitted to Charity Hospital in March, 1876, suffering from intracapsular fracture of the neck of the right femur. The fracture occurred three months previous to her admission, and was occasioned by slipping from the door-step on her way out. She was taken to Chambers Street Hospital, and treated by means of Buck's extension for eleven weeks. On admission to Charity Hospital, a plaster-of-Paris splint was applied, which was kept on for two months without any result. Slight extension was then applied for six weeks, and a long splint to prevent caries of the foot and retain the limb in posi-

tion. This, too, proved useless. She was then allowed to leave her bed with a bandage passed around the joint of the injured limb and curved around the neck, supporting the joint so that crutches could be used. In twenty-four hours this likewise had to be discontinued. Every movement gave great pain, and crepitus could be felt distinctly whenever the hand was applied over the joint and the limb moved. She remained in bed eleven months after this without making the slightest improvement. I then concluded, that as everything else had been tried, it would be best to remove the fractured elements of the bone. This was done by making a semilunar incision four inches in length, behind the great trochanter, opening the joint in the usual manner. I found in the cavity about a drachm of inspissated pus mixed with small particles of bone. The neck of the bone was completely absorbed from the globular head to the trochanter, and the only connection between the two was by means of a narrow band at its lower end, about an inch and a half in length. A sharp spicula of bone was found on the inner side of the lower fragment, and it was probably this which caused the pain on movement. The globular head and all *débris* in the cavity were cleared out, the cavity washed with a strong solution of carbolic acid, and the wound filled with oakum. Buck's extension and a long side splint were applied to the limb and retained for six weeks after the operation. At this time she was able to move in bed without pain, and ate with a good appetite, and in every way seemed greatly relieved. A plaster-of-Paris splint, with an opening over the posterior part of the joint, was then put on, and the wound healed as before after packing it with oakum from the bottom. Three months after the operation was performed the wound was completely healed; she was able to get out of bed and walk around on crutches without pain. The limb, however, from long confinement and inaction of the muscles, was completely useless. Although the joint was freely movable, she was unable to move it handy in any direction; flexure, extension, and rotation being altogether lost, simply and solely from atrophy and paralysis of the muscles. She is in the hospital yet, able to move around without pain in or near the hip-joint, except on stormy days. The knee-joint, however, is beginning to show signs of inflammation, and she complains considerably of it. In all other respects she is well.

*Remarks.*—There was no good reason why ligamentous union should not have taken place in the case. The woman was well preserved and in excellent condition even at the end of her long confinement in bed. She is in excellent physical condition now. The operation of excision should have been performed before the limb was rendered useless by long-continued inactivity and atrophy of the muscles. Indeed, in all cases of intracapsular fracture where there is no improvement at the end of three months, as evidenced by the presence of long crepitus, excision of the broken fragment or fragments should be performed. Of course, this rule does not apply to very old or debilitated cases. Splints and other appliances to induce ligamentous union are utterly useless after that period, and the patient then must remain a helpless invalid in bed during the rest of her life, or submit to an operation which at best will allow her to move around on crutches without pain.

Dr. SIMSON thought that it was very difficult to make a diagnosis positively between intra- and extracapsular fracture. At a recent meeting he had presented specimens illustrating both conditions, and in which the usual distinctive features were reversed.



Dr. MASON believed that the operation described by Dr. Howe was unique.

Dr. HOWE had not met with a similar one on record.

#### STRONGULUS MICRURUS IN THE CALF.

Dr. LIAUTAUD presented the lungs of a calf, with the following history: The specimen had been sent to him by a veterinarian of Newark. A stock-raiser had noticed that several of his calves died with the symptoms of bronchial irritation. A physician in the neighborhood was consulted, who pronounced the disease broncho-pneumonia. A veterinarian being subsequently called, made a post-mortem of one of the animals, and discovered the bronchial passages filled with small worms (*strongulus micrurus*). Dr. L. remarked that the disease presented but few symptoms, generally assumed an epizootic form, and was rapidly fatal.

Dr. GIBNEY exhibited a beautiful fresh specimen of morbus coxarius in its third stage, for the purpose merely of making a preliminary report.

#### SARCOMATOUS TUMOR OF BLADDER.

Dr. L. A. STIMSON exhibited a tumor of the bladder removed from a gentleman sixty-three years of age. When admitted to the Presbyterian Hospital in the early part of October, the patient complained of the frequent and painful passage of bloody urine. His first attack occurred in the early part of July, and two or three weeks after a fall from a buggy. For the previous four years he gave the history of attacks of so-called bilious colic, which, in connection with his bladder trouble, gave rise to the suspicion, in the mind of Dr. Stimson, of renal colic and the possible existence of vesical calculus. After unavailing efforts to reduce the irritability of the bladder, the patient was sounded for stone with negative results. A subsequent examination was also of a negative character. The use of the searcher was followed each time by blood in the urine for two or three days consecutively. Examination per rectum revealed enlargement of the prostate, and fulness and doughiness about the bladder, which condition was supposed to be due to cystitis. The existence of a tumor was suspected, but the suspicion could not be confirmed inasmuch as the condition of the patient forbade bimanual exploration. Ruling out the probability of the existence of a tumor in the bladder, pyelitis was thought of as a cause for his troubles. The patient died rather suddenly without a positive diagnosis having been made.

At the autopsy, and before the body was opened, bimanual palpation was performed and the existence of a tumor was made out. On opening the bladder the morbid growth, which proved to be a sarcoma three inches in diameter, was attached by a pedicle as thick as the finger to the posterior surface of the bladder, about four inches above the neck of the organ.

#### CALCULI IN THE BLADDER—RAPID LITHOTRITY.

Dr. E. L. KEYES presented four specimens (calculi), each of them interesting as illustrating some special point.

The first case illustrated the mildness of rapid lithotripsy and its efficiency. The patient, a man of sixty-three, after a varied set of bladder symptoms, was examined by Dr. Van Buren in October, 1877, and a calculus detected. The patient could not remain in New York for operation, but returned to his native city, where a surgeon put him to bed for seven weeks while he was being relieved of his stone by ordinary lithotripsy, and kept him, in all, from his business

three months, removing considerable calculous material—phosphatic.

As the bladder symptoms continued, however, and his surgeon failed to find any further fragments to crush, the patient returned to New York in October, 1878.

Upon examination, one large and two small angular fragments were found in the bladder. The urine was highly ammoniacal and full of pus. Kidneys sound.

At a single sitting of rapid lithotripsy, lasting about an hour (Keyes's lithotrite, Bigelow's washing apparatus), about one and one-half drachm of phosphatic stone was removed from the patient's bladder.

No more reaction followed this operation than had habitually attended a sitting by the old method. No anodyne was given excepting  $\mathcal{M}$ . v. Magendie's solution hypodermically at the time of the operation. The ammoniacal odor rapidly disappeared from the urine; there was no chill, no fever. The intervals of urinating lengthened, the first day from one up to two hours, and in a few days reached three and four hours.

On the sixth night the patient slept all night without urinating, a thing he had not done before for several years. An examination ten days afterwards failed to detect any stone, and the patient left the city for his home.

Nothing could illustrate the advantage of rapid over slow lithotripsy more forcibly than this case.

The second case was that of a man of sixty-eight, who had carried a smooth uric acid stone in his bladder for several years. This was totally removed at one sitting, by rapid lithotripsy, in forty-two minutes. The stone was one and one-half inch in its long, and about three-quarters of an inch in its short diameter. The first crushing lasted twenty minutes, and four minutes' washing yielded 177 grains; the second crushing lasted six minutes, and four minutes' washing yielded 40 grains; the third crushing lasted four minutes, and two minutes' washing yielded 19 grains of fragments.

Here a stone weighing half an ounce is taken from the bladder in three-quarters of an hour. Recent exploration of the bladder proves the absence of stone. The patient made a good recovery. He had no chill, and but little fever after his operation. The case is a typical one as illustrating the value of rapid lithotripsy.

The third specimen shown by Dr. Keyes was a number of small phosphatic calculi of varied size and a mass of mortar-like material, one side of which was flat and blood-stained.

These specimens were taken from an old gentleman after death, upon whom no operation had been attempted, on account of his general condition during life. The specimens were shown to illustrate the method of formation of phosphatic calculi within a diseased bladder. The mortar-like mass had been torn off from a semi-ulcerated surface within the bladder to which it was firmly adherent. The smaller calculi represented phosphatic accumulations around small nuclei which had become detached from this mass, while the mortar-like (phosphatic) material itself was deposited only (and quite firmly) upon a roughened, eroded surface of the bladder-wall. On no other portion of the mucous membrane was there any deposit.

Dr. Keyes reaffirmed the proposition formulated by Thompson, that phosphates, amorphous or crystalline, are not apt to accumulate into stone in the bladder, excepting upon a nucleus, or upon rough-

ened, ulcerated, excoriated portions of the bladder-wall. A smooth mucous membrane is the best guarantee against the formation of phosphatic stone; but, unfortunately, a bladder which is sufficiently inflamed to allow the precipitation of crystalline phosphates very rarely remains long smooth.

#### HAIR-PIN IN THE FEMALE BLADDER.

Dr. Keyes's fourth case, which with all the foregoing, had been seen in connection with Dr. Van Buren, was that of a female child of six years and a half, who had introduced a hair-pin two inches long into her bladder fourteen months previously, namely, at the early age of five years and two months. The child announced to her mother that she had lost the pin; but as a physician failed to find it upon exploration, she was disbelieved. Bladder symptoms soon came on, and these had been variously treated for a year or more before the child fell into the hands of Dr. Morje, who brought her to Dr. Van Buren.

The child had a hymen which was not broken. The small bladder had contracted laterally upon the hair-pin, which seemed immovably fixed in it.

It could readily be seized, but it would not turn around in Collin's hair-pin extractor, which was used after the urethra had been dilated with Guyon's dilator (devised for perineal lithotomy).

As the vagina could not be used for the finger, on account of the hymen, and it was not considered wise to dilate the urethra sufficiently in so small a child to pass a finger into the bladder, one leg of the hair-pin was seized in the bite of a strong dressing-forceps bent upon itself, thus disengaged from the bladder, and the pin was then easily extracted. Some calculous matter was afterwards crushed up and washed out with Bigelow's washing apparatus.

No incontinence, and no bad symptoms followed. The clitoris of this infant was simply enormous.

### THE PHILADELPHIA MEDICAL SOCIETIES.

#### *An Abstract of their October Meetings.*

(Prepared for THE MEDICAL RECORD.)

#### THE PATHOLOGICAL SOCIETY.

The Society was called to order at 8 P.M., Thursday, October 10th, Dr. H. LENOX HODGE, President, in the Chair.

#### OVARIAN CYST.

Dr. FRANK B. GETCHELL related the case of a widow lady, forty-two years of age, who had never been pregnant. Eighteen months previous to date she had complained of enlargement of the belly with pain. This enlargement had increased rapidly and had been diagnosed as due to an ovarian cyst. Ten days before operating the cyst was tapped and a pint and a half of fluid drawn off. This fluid was found to contain the so-called ovarian cells of Dr. Drysdale. Dr. Engelmann, of St. Louis, who was present on the day of the operation, was confident that the case was one of fibro-cystic tumor, although the fluid was not that of a fibro-cyst, which gelatinizes on exposure to the air. On opening the abdomen previous to the removal of the growth, the cyst was found to be covered with a net-work of large veins, and to be adherent to neighboring tissues on all sides. It was first separated from the bowels, and then a quart and a half of fluid withdrawn by the aspirator. There was almost no stem at all, but what pedicle could be found was

stretched and a ligature put on. After removing a large part of the sac it was discovered that a good deal of it was below the ligature. This part was not cut away. The woman reacted well after the operation, but in thirty-six hours a peritonitis, which proved fatal, supervened. The tumor was found not to be fibro-cystic. The introduction of the drainage-tube, it was thought, might have prevented the peritonitis. Remarkable facts connected with the case were that the woman had menstruated until February, 1878; that the sound could be introduced into the womb four inches, and that the only relief which the woman secured from her pain was obtained by pressure.

Dr. MORRIS LONGSTREET presented the specimen with a record of the post-mortem appearances. The body was emaciated. The incision made through the abdominal walls had completely healed. The kidneys and part of the ureters were dilated by reason of the pressure of the cyst upon the ureters. On several spots on the peritoneum, especially around the pelvic region, small bodies of the size of a pea, having a whitish color and of soft consistency, were found. They were seated on the peritoneum or buried in inflammatory material, and presented wart-like projections.

Dr. TYSON had examined the fluid of the cyst and found ovarian cells and albumen in considerable quantities.

Dr. HODGE considered the case as one of much rarity. He had had a fatal case in his own practice in which there had been fibroid tumor of the uterus, cyst of the Fallopian tube, and dilated kidney.

The Society then proceeded to the election of its officers for the ensuing year.

The Society met on Thursday evening, October 24th, Dr. H. LENOX HODGE, the President, in the chair.

#### TUMORS IN THE LARYNX.

Dr. CARL SEILER presented a report of six cases of tumors in the larynx.

CASE I.—Æt. 32. Symptoms of hoarseness with unilateral paralysis of the vocal cords. Laryngoscopic examination revealed a small nodule on the free edge of the left vocal cord projecting slightly into the glottis. An eighty-grain solution of nitrate of silver caused absorption of the growth.

CASE II.—Æt. 52. Had complained of loss of voice for eighteen months. The laryngoscope showed a nodule the size of a mustard-seed imbedded in the edge of the left vocal cord, which was also paralyzed. Nitrate of silver failed to cause absorption, but the case was materially improved by the use of electrolysis, passing the current for thirty seconds at a time.

CASE III.—Æt. 21. Complained of failure of voice. Nodule on the middle of the right cord absorbed by nitrate of silver.

CASE IV.—Æt. 22. Two nodules on the left cord. Inhalations of solutions of nitrate of silver tried without effect.

The class of cases, said the speaker, illustrated by the above examples were exceedingly rare. Thus far only two cases had been reported in this country. These two occurred in the practice of Dr. Lefferts, of New York. Türk, of Germany, had reported some seven or eight cases. Three of the cases had occurred in professional singers.

CASE V.—Æt. 24. Complained of dryness of throat and huskiness of voice. Mucous membrane injected. Bright red tumor the size of a pea on the right vocal cord. In attempting to sing low notes there was no vibration of cord. Tumor after removal found to be fibro-cellular. Operation produced entire cure.



CASE VI.—Æt. 12. Large papillomatous growth filling cavity of larynx. Several pieces of it removed by forceps at each sitting, but no decrease in its size. Tracheotomy performed by Dr. John Ashhurst, Jr. Fully a half ounce in weight of substance of tumor had been removed by forceps. The operation of clipping the growth may have turned growth from papilloma into epithelioma, as suggested by Braun, of Vienna.

DR. COHEN thought that the removals of such growths by the mouth were among the most difficult operations in surgery.

DR. J. E. GARRETSON had had a case similar to Dr. Seiler's sixth case. It was that of a boy, æt. 5, whose breathing was very difficult. Laryngoscopic examination showed a growth associated with the vocal cords. Tracheotomy was performed and followed after some days by thyrotomy and a tumor removed as large as the end of a finger. Growth found to be cauliflower papilloma. After removing growth site was cauterized with London paste. Patient could speak in two weeks after operation. The doctor thought that it was much better to perform thyrotomy in all such cases than to scrape away the growth piecemeal through the mouth.

DR. H. LENOX HODGE thought the danger to life in such cases was mainly due to the tendency to the production of spasm of the larynx.

#### TUBERCULAR KIDNEY.

DR. LOUIS STARR presented a specimen taken from a post-mortem at the Episcopal Hospital. The man had died of phthisis, but his left kidney was found to be enlarged and fatty, and the right kidney to be lobular. The ureter of the right kidney was brittle and its pelvis dilated. There were also a number of small nodules found in this kidney.

DR. ROLAND CURTIN mentioned a case of his in which both ureter and pelvis of a kidney had been found dilated following catarrh of the bladder.

#### CHRONIC ARTHRITIS.

DR. H. LENOX HODGE presented for Dr. John Ashhurst, Jr., the limb of a child with congenital syphilis, whose knee had been opened for the purpose of performing excision of the joint, but in which finding not only the knee-joint, but also the lower part of the femur entirely disorganized, amputation had been performed higher up.

#### PRIMARY INTRATHORACIC CARCINOMA.

DR. WILLIAM PEPPER presented a specimen obtained from a post-mortem held at the Philadelphia Hospital, showing a large carcinoma of the mediastinum involving the bronchial and cervical glands. The case had been complicated by a large pleuritic effusion on the left side.

#### THE COUNTY MEDICAL SOCIETY.

The Society met on Wednesday evening, October 9th; DR. H. H. SMITH, President, in the chair.

#### THE INTRAVENOUS INJECTION OF MILK IN FUNCTIONAL AND ORGANIC ANÆMIAS.

DR. WILLIAM PEPPER read a paper with the above title, giving an account of two cases in his hospital practice, in which milk had been injected into the veins.

CASE I. was that of a female, aged thirty-two, who was admitted to the University Hospital, in the spring of this year, in a condition of extreme anemia and spinal irritability. The operation of injecting

the milk was performed by Dr. Charles T. Hunter. The cow from which the milk was obtained was brought into a room adjoining that in which the patient lay. At the first injection five ounces of milk were thrown into the circulation. Twenty-seven days later, six ounces were injected. The immediate effects of the injection were remarkable in both cases. They were: great respiratory disturbance, capillary injection, etc., a rapidly developing and disappearing urticaria. From the time of the second operation, July 17th, the patient's condition improved greatly; she gained flesh and color, and her nervous phenomena disappeared.

CASE II. was that of a sailor, thirty-three years of age, who was admitted to the University Hospital on May 6th, 1878, with Addison's disease. The regular proportion of red globules had been reduced seventy-five per cent. On June 15th, six ounces of milk from the same cow were injected into the median basilic vein. One week later the operation was repeated, and again on June 27th. The patient died soon after the third injection, a post-mortem examination revealing medullary *anæmotosis* in the marrow of the long bones and sacculated suprarenal capsules.

With regard to the transfusion of blood, Dr. Pepper held: 1. That transfusion must be dexterously performed, and that carefully defibrinated blood must be used; 2. That not more than seven ounces should be injected at one time; 3. That in all cases dangerous nervous and vascular symptoms were liable to follow the operation; 4. That these after-symptoms might be moderated by large doses of quinia administered before the operation; 5. That albuminuria might follow the operation; 6. That the transfused blood stimulated the circulation and nutrition strongly for a short time; 7. That transfusion of blood might be employed for temporary relief in functional diseases, time being thus gained for the use of other measures; 8. That transfusion was of no use in serious organic disease, the risks of transfusion being great where the heart and circulation were weak.

With regard to intravenous injection of milk, the speaker was of the opinion: 1. That none but fresh milk at a temperature of 100° should be used; 2. That not more than six ounces should be injected at one time; 3. That the after-effects were as severe as those following the transfusion of blood; 4. That there was no danger of embolism following the intravenous injection of milk; 5. That albuminuria generally followed the operation; 6. That the stimulating effects of the milk were felt immediately; 7. That milk did not produce as lasting effects as blood; 8. That the intravenous injection of milk in organic anemia might hasten the result (see Case II. above).

DR. CHARLES T. HUNTER, describing the operation, said that he made an incision one-half inch long, over the course of the median, basilic, or cephalic vein, dissected out the vein, raised it on a grooved director, and then plunged the canula directly into it. He did not think it necessary to tie the canula *in situ*, as it was sufficiently constricted by the wall of the vein.

DR. H. H. SMITH wished to know why it was not possible to enter the vein through the skin, and without dissecting it out.

DR. HUNTER replied, that, upon one occasion, in trying to enter the vein without an incision, his canula had passed right through the vein; that in another case he had to make seven punctures before his canula entered the vein; that the incision could be made quickly and gave rise to little or no pain.

DR. BENJAMIN LEE wished to know the size of the cannula used.

DR. HUNTER said that his cannula was silver-plated, and from one-eighteenth to one-twelfth of an inch in diameter, being thus somewhat smaller than the cephalic vein itself; was provided with a stop-cock, and connected with the glass funnel by a rubber tube twenty-four inches long and one-sixth of an inch in diameter. In speaking of a remarkable case of the intravenous injection of milk, which occurred here late in the fall, and in which the milk used was that of a goat, Dr. Hunter said that the effects of the first three injections were remarkable. The patient was very low from hemorrhage from the bowels following typhoid fever. When the milk was injected the veins were collapsed, and the patient was entirely unconscious, while in the course of six or twelve hours after the operation the veins had filled out, and he was conscious and intelligent. Dr. Hunter referred to the case of milk-injection for gastric ulcer, reported as performed in May or June of this year, by Dr. Ballard, of the Demilt Dispensary, New York City.

DR. H. H. SMITH wished to inquire if it were not possible that the after-effects of the milk-injection were due simply to the presence of a stimulating liquid in the blood. He instanced the effects following the injection of salt and water in Asiatic cholera.

DR. PEPPER made answer that Dr. Smith's question was one which could not be definitely answered at the present day, and when our knowledge of the subject was so imperfect. He had no doubt that in many cases the milk-injections merely served to tide the system over a period of depression.

DR. FREDERICK P. HENRY did not at all agree with Dr. Pepper in his division of anemias into functional and organic. Anæmia, he argued, was always a change in the structure of the blood, hence structural, i.e., organic. With regard to the albuminuria following milk-injection, he wished to call the attention of the Society to the fact that albuminuria always follows the ingestion of a large amount of the white of egg.

Concerning the respiratory difficulty following the intravenous injection of milk, DR. JAMES C. WILSON called to mind a lecture by Ponick, in which it was stated that the same symptom was consequent upon diseases in which the hæmoglobin of the blood was destroyed.

DR. I. GUITÉRAS said that where the hæmoglobin of the blood was being destroyed there was always a species of jaundice present. Here there was none. He thought the dyspnoea entirely mechanical.

DR. H. H. SMITH thought that the dyspnoea was due to the formation of casein in the blood; but, then, Dr. Gaillard Thomas had shown that milk resembled chyle very closely in its constitution.

DR. C. T. HUNTER wished to remark in closing that he always considered it necessary to strain the milk, in all cases, before injecting it, and that he thought it dangerous to cleanse the apparatus with carbolic acid before using it, as suggested by some.

The Society then proceeded to the transaction of private business.

The Society met on Wednesday evening, October 23d, Dr. H. H. SMITH, President, in the chair.

A large part of the evening was spent in the transaction of urgent business.

Later, Dr. W. R. D. BLACKWOOD read an elaborate paper, reviewing at length the flagrant abuses dependent upon the system of "free dispensaries." His

facts and arguments, though cogent, are not new to the profession. His paper was referred to the Committee on "Hygiene, and the Relations of the Profession to the Public."

The Society then proceeded to the transaction of private business.

## Correspondence.

### THE GERM THEORY OF DISEASE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In an interesting lecture on the Germ Theory of Disease, delivered before the Philadelphia Social Science Association, Oct. 17, 1878, and published in the last number of THE MEDICAL RECORD, Prof. Jos. G. Richardson says: "These results of mine were corroborated soon after by the researches of Dr. Neffel, of New York, upon some of the inferior animals, in regard to which he informs us," etc. This leaves the reader under the impression that Prof. Richardson's results were obtained before mine, when, on the contrary, I have the priority. Dr. Richardson's article appeared in the *Amer. Jour. of Med. Sciences* in July, 1868, his experiments being made in May of the same year. I read a paper before the New York Med. Journal Association, June 19, 1868, which was printed in THE MEDICAL RECORD of July 15, 1868, and in which I gave the results of my experiments made in the spring and summer of the previous year, 1867, in Virchow's Pathological Institute, as the dates of some of the experiments show (p. 227, MED. REC., July 15, 1868). These very numerous experiments were made not only on frogs—inferior animals—but also on mammalia—dogs, etc.—and always gave the same positive results. Besides, they were witnessed by my friends Prof. Kühne, Cohnheim, and others, who considered them entirely novel and important.

After my arrival in New York, finding no appropriate laboratory, I was obliged to discontinue my experiments, and therefore made public the preliminary results, purposely abstaining from making far-reaching pathological and therapeutical generalizations, which, even at that time, would be justified by my experimental researches. I left them to those numerous investigators who immediately followed in my path, and possessed all the means of demonstrating them.

Very truly yours,

WM. B. NEFFEL.

16 EAST FORTY-EIGHTH STREET, Nov. 9, 1878.

IODOFORM administered internally controls functional cardiac palpitation. A combination of iodoform and ordinary collodion is excellent in reducing glandular swellings, in orchitis, epididymitis, chronic swellings of the knee-joint, etc. So says Prof. Moleschot, of Turin.

THE PITH OF DRIED CORN STALK AS A UTERINE TEXT.—Take a joint of dried corn-stalk, strip off its cuticle, press the pith slowly and firmly between the thumb and finger. Continued pressure reduces it to four or five times less than its original size. Its dilating power is equal to sea-tangle or sponge. It is easy of introduction, easily overcomes slight resistance, dilates effectually, but slowly. Dr. W. T. Goldsmith, of Atlanta, who recommends them, has used them for seven years without a single accident.



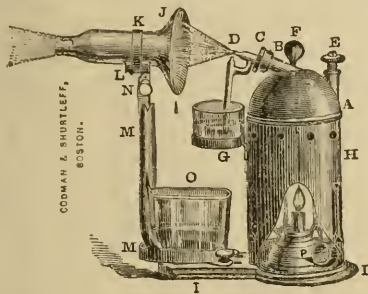
## New Instruments.

### ATOMIZING INSTRUMENTS.

NO. I.—CODMAN & SHURTLEFF'S ATOMIZING APPARATUS.

It is our intention in this and succeeding numbers, to notice the respective merits of the different apparatus for atomizing fluids. We shall naturally commence with that of Codman & Shurtleff, of Boston, which has been so long before the medical public, and which, as a steam apparatus, was, as far as we know, the pioneer in the field.

The medicine cup is attached directly to the lamp shield, while the glass face tube is supported upon a brass adjustable standard, and fastened to the latter by means of an india-rubber band. This upright, by means of a slot and screw arrangement in the base of the stand, can be adjusted within reasonable limits, to different distances from the atomizing tubes.



The apparatus consists of the sphere-shaped brass boiler (A), steam outlet tube (B), with packing-box (C), formed to receive rubber packing, through which the atomizing tube (D) passes, steam-tight, and by means of which tubes of various sizes may be tightly held against any force of steam by screwing down its cover while the packing is warm. The safety-valve (E) is capable of graduation for high or low pressure by the spring and screw in its top. (F) represents a wooden button or handle, by which the boiler may be lifted while hot. Then is seen the medicine-cup and cup-holder (G), the support (H), base (I), the glass face-shield (J), with oval mouth-piece connected by the elastic band (K) with the cradle (L), whose slotted staff passes into a slot in the shield-stand (MM), where it may be fixed at any height or angle required by the milled screw (N).

The shield-stand is formed into a handle just above the waste-cup (O), and its base is formed to receive and hold this cup.

The boiler is supplied with water through the funnel-shaped orifice, into which the safety-valve is screwed.

All of its joints are *hard soldered* and cannot be separated by any heat short of redness, or any pressure attainable with the lamp. The manufacturers assure us that each apparatus is carefully tested to a pressure of more than one hundred pounds to the square inch.

The spirit lamp (P) is of brass, and is provided with means of graduating the flame, and with an extinguisher.

The waste-cup, medicine-cup, and lamp, are held in their places in such a manner that they cannot fall out when the apparatus is carried or used over a bed or otherwise. The apparatus is contained in a strong

wood box 7½x4x8 inches; it can be carried from place to place by the practitioner without removing the atomizing tubes or the water; it can be unpacked and put in position for use very quickly and conveniently.

The working of the apparatus is admirable, there is no spurting from the atomizing tube, the delivery of the spray is uniform, and its projection sufficiently forcible for all practical purposes. The wooden handle to the boiler is a great convenience, as is also the adjustable standard for the face-shield, but the attachment of the face-shield itself by means of an india-rubber, is unhandy, and does not compare in ease of adjustment with the ordinary spring clasps now so much used.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 3d to November 9th, 1878.*

YEOMANS, A. A., Capt. and Asst. Surgeon. Granted leave of absence for one month on Surgeon's Certificate of Disability, with permission to leave the Department. S. O. 229, Dept. of Texas, Oct. 29, 1878.

### Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 9, 1878.

| Week Ending   | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Nov. 2, 1878. | 0             | 14             | 68             | 2                          | 3        | 34          | 0          | 0             |
| Nov. 9, 1878. | 1             | 14             | 72             | 1                          | 1        | 45          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE,  
WASHINGTON, D. C., Nov. 9, 1878.

NATIONAL QUARANTINE REPORT.—Abstract of Sanitary Reports received during the past week under the National Quarantine Act:

*New Orleans, La.*—There were 11 new cases of yellow fever, and 143 old cases reported, for the week ending yesterday evening. For the past twenty-four hours, no new cases and 2 deaths. Quarantine raised on the 5th inst. Total cases, 13,406—subject to revision. Total deaths, 4,010.

*Morgan City, La.*—There were 8 cases of yellow fever and 3 deaths during the past week. Total cases to yesterday evening, 571; deaths, 105.

*Mobile, Ala.*—During the week ending yesterday evening there were 35 cases of yellow fever and 9 deaths. Total cases, 259; deaths, 68.

*Pass Christian, Miss.*—7 new cases of yellow fever and 1 death for the past week. Total cases, 196; deaths, 21.

*Ocean Springs, Miss.*—For the week ending yesterday noon there were 4 cases of yellow fever and no deaths. Total cases, 150; deaths, 30.

*Hernando, Miss.*—10 cases of yellow fever and 5 deaths for the week ending Nov. 2d. No cases and one death during the past week. Total cases, 175; deaths, 69.

*Dry Grove, and Lebanon Church neighborhood, Miss.*—Since Oct. 19th, there have been 13 new cases of

yellow fever and 8 deaths. No new cases and but 1 death for the week ending Nov. 6th. Total cases, 125; deaths, 52. Crystal Springs, Miss., near Dry Grove, has, so far, escaped the fever.

*Memphis, Tenn.*—During the past week there were 33 deaths from yellow fever. Total deaths to the evening of the 7th, 2,997.

*Chattanooga, Tenn.*—9 new cases of yellow fever and 4 deaths during the past week. Total cases to yesterday evening, 444; deaths, 133.

*Cairo, Ill.*—During the two weeks ending yesterday there were 8 new cases of yellow fever and 3 deaths. The last case occurred on the 4th and the last death on the 6th inst. Total cases, 83, not including some doubtful cases. Total deaths, 44. Heavy frost the 8th inst.

*Vicksburg, Miss.*—There were 11 deaths from yellow fever during the past week. No deaths during the past twenty-four hours. 6 deaths during the week in the country near Vicksburg.

*Delta, La.*—4 deaths from yellow fever during the past week.

*Decatur, Ala.*—During the week ending last evening there were eight cases of yellow fever and one death. Total cases, 196; deaths, 43.

*Gallipolis, Ohio.*—No new cases of yellow fever since Oct. 26th. The last death occurred Oct. 27th. Total cases, 65; deaths, 37—not including 6 deaths which occurred on the steamboat John Porter.

*Key West, Fla.*—No yellow fever since Oct. 13th. The U. S. troops returned to Key West on the 7th inst.

*Havana, Cuba.*—24 deaths from yellow fever and 4 from small-pox for the week ending Nov. 2d.

*Lambayeque, Peru.*—For the week ending Oct. 12th, sporadic cases of yellow fever are reported.

*Martinique.*—There were no deaths from preventable diseases in the island of Martinique during the week ending Oct. 9th.

*Bermuda.*—During the two weeks ending Oct. 29th, there were 6 deaths from all causes out of a population of 15,293, including 3,218 military and naval force. The Bark Blackpool, which left Bermuda quarantine for England, Oct. 22d, had three or four cases of yellow fever on board.

*Japan and China.*—Dr. Simmons, Sanitary Inspector for the Japanese Government for the port of Yokohama, reports, under date of Oct. 10th, that he regards the occasional reported cases of cholera in Japan during the past summer as cholera morbus, and not malignant, or Asiatic, cholera. On the 2d of October, however, malignant cholera broke out in Nagasaki, and in 8 days there had been 53 cases and 10 deaths. Cholera has existed in Shanghai, China, for several months, and as Nagasaki is the first port of Japan entered by vessels from Shanghai, Dr. Simmons regards the outbreak as a new importation, but owing to the lateness of the season, and the sanitary measures instituted by the Government he does not anticipate a spread of the disease.

*Europe.*—In 149 cities and towns of the German Empire, having an aggregate population of 7,369,009, there were, during the week ending Oct. 12th, 5,470 births, and 3,539 deaths from all causes, being an annual death-rate of 25 in 1,000 of the population. Wiesbaden shows the lowest death-rate, 11.2, and Chemnitz the highest, 33.8. The total deaths include 80 from enteric fever, 127 from scarlet fever, and 154 from diphtheria. No deaths occurred from cholera, yellow fever, small-pox, or typhus fever.

*Vienna, Austria.*—During the two weeks ending Oct. 19th, 700 deaths are reported out of a population of 727,271, being an annual death-rate of 25.53 per

1,000 of the population. The total deaths include 15 from small-pox, 5 from enteric fever, 11 from scarlet fever, and 46 from diphtheria.

*Hamburg.*—During the week ending Oct. 12th, there were 53 deaths from typhus fever, 10 from scarlet fever, and 39 from diphtheria and croup.

*Great Britain.*—In 23 large cities and towns of the United Kingdom, having an aggregate population of 8,373,953, there were 6,095 births during the week ending Oct. 19th, and 3,371 deaths from all causes. In 21 of these cities there were 14 deaths from small-pox, 184 from scarlet fever, 22 from diphtheria, and 90 from fevers, principally enteric.—Jso. M. Woodworth, Surgeon-General United States Marine Hospital Service.

—Up to the time of going to press, and since the foregoing report was made, the yellow fever has shown such a tendency to decline as practically, in most of the localities named, to cease as an epidemic.

DR. ALLAN McLANE HAMILTON will give four clinical lectures upon Nervous Diseases at the Hospital for Epileptics, Blackwell's Island, on Friday, Nov. 22d, and the succeeding Fridays. The boat leaves the foot of 26th Street, East River, at half-past one. Gentlemen wishing to attend will please send their names to Dr. Hamilton, No. 2 E. 33d Street.

THE AMERICAN ACADEMY OF SCIENCES.—Dr. William A. Hammond gave a reception at his residence on Thursday evening, November 7th, to the members of the American Academy of Sciences. There were also present a number of distinguished medical gentlemen, among whom were Profs. J. C. Dalton, J. W. S. Arnold, J. C. Draper, J. W. S. Gouley, M. A. Pallen, H. G. Piffard, J. L. Little, Jos. W. Howe, F. D. Weisse; Drs. Meredith Clymer, M. H. Henry, E. C. Spitzka, J. C. Davis, and others.

THE YORKVILLE MEDICAL ASSOCIATION.—The tenth anniversary of the Yorkville Medical Association was held on Tuesday evening, Nov. 12th, and was made the occasion of a banquet at Seighortner's. The meeting was called to order by the Chairman of the Association, Dr. John Shrady, of Harlem, N. Y., when the annual oration was delivered by Dr. James R. MacGregor, after which the members adjourned to the supper-room. The chairman, in some happy remarks, welcomed the guests to the hospitalities of the occasion. Dr. A. N. Brockway offered the toast of the Yorkville Medical Association, which was responded to by Dr. W. V. White. Dr. C. W. Packard replied to the sentiment of the Medical Profession, and Dr. Geo. F. Shrady to that of the Medical Press. Speeches were also made by Dr. W. H. Studley, and by the following of the invited guests: Drs. Allan McLane Hamilton, L. D. Bulkley, R. A. Barry, H. D. Noyes, H. L. Hanks, and R. L. Parsons. Dr. John Shrady read an amusing account of the Humors of the Lying-in Room, which gave rise to much merriment, as did also a facetious poem by Dr. F. A. Thomas, on the experiences of a successful quack.

ERRATA.—By typographical errors in the notice of "The Throat and its Diseases," No. 418, p. 373, EDDY appears for ELSEBERG, and *aqua ad* for *aqua ad*.

LEFT-HANDEDNESS.—At the late meeting of the British Association, Dr. H. Muirhead made a communication on "Left-handedness." He thought it depended on which half of the brain took the lead. Left-handedness once begun in a family was likely to run in it. It was a curious fact that left-handed people had the left foot one-eighth to one-third of an inch longer than the right.



## Original Communications.

## TRACTION IN THE TREATMENT OF CLUB-FOOT.

By NEWTON M. SHAFFER, M.D.,

SURGEON IN CHARGE OF THE NEW YORK ORTHOPEDIC DISPENSARY; ORTHOPEDIC SURGEON TO ST. LUKE'S HOSPITAL.

For the purpose under consideration we may say that, viewed mechanically, the normal foot forms with the leg a lever of the first kind, where the *fulcrum* (the inferior articulating surface of the tibia) lies between the *power* (the muscles of the posterior part of the leg) and the *resistance* (the anterior part of the foot). If the foot be raised from the floor and extended in mid-air, this action of the lever is illustrated, though, of course, the anterior tibial muscles become the power, and the posterior the resistance, when, under these circumstances, the foot is flexed. In the various forms of talipes where the equinus element exists, the first of these mechanical effects becomes exaggerated through the permanent contraction of the post-tibial muscles, and the latter ceases to be operative for obvious reasons. In order to again place the foot in its normal position, we are obliged to use some form of apparatus which will, in a mechanical sense, produce the same effect as the anterior tibial muscles, and which will also act in such a direction as to remove (with the assistance of the knife, if necessary) the resistance met with in the contracted and altered state of the opposing tissues.

In every form of "club-foot shoe" for the treatment of equino-varus or equino-valgus which I have thus far examined, the artificial power used to overcome the resistance, whether it lies in the tendo Achillis, the plantar fascia, or elsewhere, has been, in some important particulars, misapplied, with the result of making the mechanical treatment of talipes, whether following tenotomy or not, not only tedious, but in very many instances unsatisfactory.

If we call to mind the ordinary forms of apparatus, it will be remembered that the essential parts comprise one or two uprights running parallel with the long axis of the leg, and surmounted by a band passing around the calf; a joint corresponding with the ankle; a "heel-strap" securing the heel in a "cup;" and a foot-plate, with or without a joint or hinge, corresponding with the medio-tarsal articulation. This apparatus, modified from Scarpa's shoe, is made the medium of the application of a certain degree of force, which is intended to act, as nearly as may be, in place of the anterior tibial or lateral muscles.

In no other part of the human body is the substitution of a purely mechanical force for the power generated by the contraction of muscular fibre—a very difficult proceeding in any event—more easily applied than at the foot. It seems very easy to construct an apparatus with a joint to correspond with the tibio-astragaloid articulation, and to make this joint the centre of an artificial movement imparted to the anterior part of the foot through the medium of the foot-plate. But let us see what happens when we attempt to do this with the ordinary forms of apparatus. The centre of motion, so far as the equinus position is concerned, is at the tibio-astragaloid articulation. The resistance lies in the post-tibial muscles, and the power is applied in front to the tarsus and metatarsus—the object being simply to flex the foot and bring down the heel. As the anterior part of the foot

rotates upon its artificial ankle-joint centre,—or, to put it in other words, as we crowd the os calcis into the heel-cup, and attempt to flex the foot in very much the same manner we would shut the half-opened blade of a knife,—the heel, unless restrained, slips forward. The attempt is made to control this movement by tying the heel down to the foot-plate and in the heel-cup, with the heel-strap. If, after this heel-strap (the analogue of the anterior annular ligament) is tied, a considerable pressure be applied in the direction of flexion (even, in many cases, after tenotomy), the further tendency of the heel (being restrained in front by the heel-strap) is to slip upward and backward away from this artificial annular ligament, ultimately, in many cases, resting on the top of the heel-plate, which forms the cup. When this occurs, all control over the foot is lost, as it turns toward that side upon which the contractions exist. One of the direct effects of mechanical flexion, as applied in the customary forms of apparatus, to overcome either a post-tibial or a plantar contraction, is to crowd the tarsal bones together.

The foot-plate rotates around an axis, the centre of which is the "ankle-joint" of the apparatus. The point at which the retaining force and counter-pressure (under the heel-strap), which holds the foot in the apparatus, is made, must also rotate around the pivotal point. Upon this heel-strap we must rely principally for the means of retaining the foot in the apparatus, and it supplies the only important means for regulating the relation of the anatomical to the artificial centre. If the foot, as a whole, could be secured perfectly in the apparatus, and be made, as we apply a gradually increasing force, to mechanically follow the direction imparted to it by the artificial mechanism, the trouble would be reduced to the minimum. Our artificial would then correspond to the human mechanism. But, principally through the causes referred to, the centre of rotation in the foot and in the apparatus become changed in their relations to each other, and all the pressure exerted under these circumstances is productive of injury. As pointed out, the tarsal bones become crowded together, the heel slips beyond the control of the apparatus, exposed points are apt to become excoriated, and the result, while sufficient force has been employed, though misapplied, is very discouraging in very many instances.

For the purpose of description, I have divided the tarsal contractions into two varieties, viz., the lateral and the antero-posterior. The former are, as a rule, easily overcome, and will be referred to more particularly later on. The latter present mechanical difficulties that are no easier of solution than are the post-tibial. It has been the object in the treatment of deformities of this class to create a lever where the long arm, anterior to the medio-tarsal articulation, will act upon this joint in such a way as to overcome a resistance at the base of the arch. This resistance is something more than a simple contraction of the plantar fascia, the division of which not unfrequently eliminates only one element of the resistance, and that the least important. But, aside from this consideration and the limited field that exists for the application of any adequate force, the trouble here, as in the post-tibial contractions, lies in the difficulty of obtaining an artificial fulcrum which can be made to correspond and to act with that which exists in the tarsus. In addition to this, the strength and distribution of the normal tissues supporting the tarsal arch, and the rarity of traumatic displacements of the bones of the tarsus, attest the many difficulties in the

way of overcoming the resistance met with, especially in the antero-posterior deformities of this class, by the attempts at leverage which we see illustrated in the various medio-tarsal joints and hinges, and the elastic tubing so popular at the present time. In the generally accepted apparatus, the heel-strap, or something which corresponds to it, is made, mechanically speaking, the means of fixing the foot. The artificial mechanical power, acting through the medio-tarsal joint, meets with a resistance that cannot, in the majority of instances, be overcome by manual force. If this resistance has not been almost entirely removed by the knife (and these cases are very exceptional), an almost ineffectual crowding of some of the tarsal bones results without a corresponding effect upon the resisting tissues. Sooner or later, in many cases, if this plan of treatment be persisted in, tender and excoriated points interfere with the further progress of the case. These unpleasant sequelae and the mechanical difficulties I have called attention to, have made subcutaneous sections of the tarsal contractions unpopular, and I know several surgeons whose experience has been very unsatisfactory with "plantar fascia operations."

These facts, and others which I need not mention, have led me, after testing various methods of treatment (including the plaster-of-Paris bandage), to study particularly the mechanical problems involved in the treatment of talipes.

While engaged in a series of experiments I was confronted by an exceptionally difficult case of equinovarus, depending on an anterior myelitis, occurring in my service at the Orthopaedic Hospital. The patient (R. W., aged 5) had on a previous occasion been an inmate of the hospital, and I had succeeded, after division of the tendo Achillis, and the usual mechanical difficulties, in overcoming the deformity. After an absence of several months, during which time the mechanical treatment of the foot was almost wholly neglected, a relapse occurred, and the patient was again brought to the hospital, with the heel in its old position—that is, the gastrocnemius had shortened fully three-fourths of an inch. I advised a second operation which the parents positively declined. The history of my attempts to bring the heel down without tenotomy, prior to the use of the instrument I shall shortly describe, would be to rehearse my comments on the mechanical defects of the generally accepted forms of apparatus. After several disappointing failures it became apparent to me that if I could apply a traction force to the anterior part of the foot, that while I would prevent the crowding of the tarsus, I would also make the resisting tissues the counter-extension, and hold the foot so that the heel could not slip from the heel-strap. In carrying out the idea, I applied extension to the anterior part of the foot after the manner employed in the treatment of diseased articulations. The effect of this procedure was a surprisingly rapid yielding of the contracted tissues, both post-tibial and plantar, though the latter was slight. The foot was brought to its normal position in a few weeks. Extension was maintained, however, for a considerable time (two or three months), and the foot was gradually flexed until its anterior part was raised to the desired extent. All support has been removed now for over two months, and no relapse has occurred.

Master E. R—, aged 8, presented a case of congenital talipes equinovarus. The post-tibial resistance had been removed by operative and mechanical measures, but a very considerable amount of antero-posterior tarsal contraction remained, even after a previous subcutaneous section of the plantar fascia.

On June 8, 1878, I assisted Dr. Henry B. Sands at the second operation on the tarsal contraction, and after the section was made, applied my club-foot extension apparatus, with a view to thoroughly stretch the tarsal tissues, Dr. Sands kindly placing the patient under my care. On the 1st of July the deformity was practically overcome, and the foot had gained three-eighths of an inch in length. About this latter date the patient went into the country, and I did not see him again until Oct. 15th—traction having been maintained by the parents until a short time previous to their return to town. The boy had improved so rapidly that the father brought him to me without any support upon the foot, and the patient walked naturally and without any irregularity of gait.

On May 11, 1878, I saw in consultation with Dr. B. D. Carpenter, of South Bergen, N. J., a baby (H. Y—), about four weeks old, who presented a case of congenital talipes equinovarus. It was an average case, and one where tenotomy would have been unhesitatingly performed by the majority of surgeons. I applied, however, one of the tarsal splints figured in engravings Nos. 4 and 5, and advised that several weeks should be occupied in overcoming the lateral tarsal contractions. The hot weather intervening, nothing was done, except to use the lateral splint, until October 22d, when the lateral deformity being wholly overcome, I applied, assisted by Dr. Carpenter, one of my club-foot extension splints. With some misgivings, I advised that tenotomy be deferred until the extension splint should have a fair trial. In this opinion Dr. Carpenter hesitatingly concurred. At that time we both expected that tenotomy would be necessary at an early day.

On November 8th, sixteen days after the apparatus was applied, Dr. Carpenter and I again met and examined the foot, Dr. Carpenter during the interval having seen the case daily. No excoriation had occurred, and the equinus position had been wholly overcome. As much had been accomplished in this case in two weeks, with the extension shoe alone, as could be expected under the most favorable circumstances with tenotomy. Several other cases, both of post-tibial and plantar contractions, have been attended with equally good results by the use of this apparatus, with and without tenotomy. The success of the application of traction to the tarsus, in overcoming the deformities of talipes—which, so far as I know, is entirely new—has so greatly exceeded my anticipations, that I am led to hope that the use of this principle, after the manner about to be described, may make the necessity of tenotomy much less frequent.

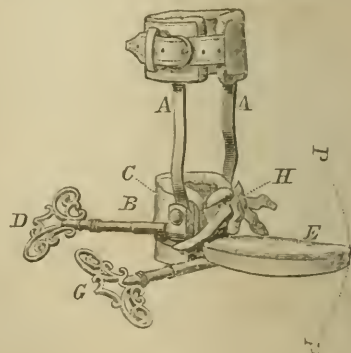


FIG. 1.

The club-foot extension apparatus (Fig. 1) consists of the ordinary uprights, A, A, fastened to the cor-



ventional heel-piece, *B*, by a plain joint on one side, and an endless screw, *C*, on the other. This screw, *C*, allows us, by using the key, *D*, to place the foot-piece of the apparatus, as a whole, in any antero-posterior position we choose, and to alter it at will, either before or after application to the foot. The dotted line, *P, P*, is supposed to represent the arc of a circle, the centre of which is the screw, *C*. That part of the foot-piece, *E*, which corresponds with the tarsus and metatarsus, is joined by a common extension rod, *F* (shown in Fig. 2), to the portion which lies under the os calcis. With the key, *G*, we are enabled to extend the anterior part of the foot-piece, *E*,

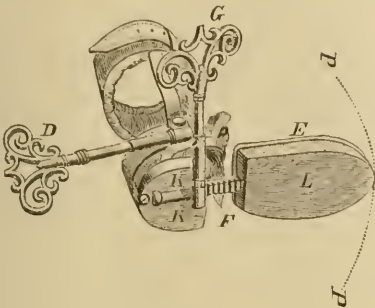


FIG. 2.

at pleasure. Fig. 2 shows the apparatus lying on its side, with a full view of the under surface of the foot-piece, *E*, and the extension rod, *F*. At *K, K*, is a leather, or rubber heel, built up on either side of the extension cylinder, and *L* represents a wooden sole, which is elevated to a height corresponding with the rubber heel. So far as this apparatus is concerned, I may say that it presents no novelty, save the extension rod, and the modifications which this addition to the apparatus makes necessary.

To apply this instrument, we first, by means of the key, *D*, place the foot-piece in a position that will exactly correspond with the antero-posterior position of the foot (whether tenotomy has been performed or not). We then secure the heel by tying the heel-strap, *H*, as represented in figure No. 3. We then bind the foot, anterior to the medio-tarsal joint, to the extension part of the foot-piece, *E*, by means of adhesive

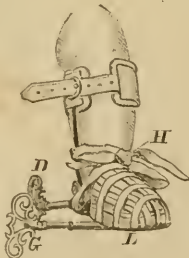


FIG. 3.

plaster (*vide* Fig. 3). We first apply four or five strips to the plantar integument, which are reversed as they pass over the end of the foot-piece, and are then fastened to the under part (wooden) of the foot-plate. Five or six strips are now passed longitudinally over the toes, and underneath, where they are also secured. Transverse pieces are then passed around the tarsus and metatarsus—also underneath the foot-plate—and secured at convenient points. (The plantar strips are not shown in the engraving,

and the artist has placed key *G* too far forward). A bandage is then applied to protect the adhesive plaster. The key, *D*, is now used to flex the foot, in overcoming to the desired extent the tendo Achillis resistance. When this shall have been accomplished it will be found, as in all similar apparatus where the artificial flexion alone is depended on to overcome the post-tibial resistance, that the posterior aspect of the heel is pressing against the heel-plate. In varus the cuboid, in valgus the scaphoid bone, becomes uselessly crowded, and in a direction which does little or no good. All the tarsal bones are also crowded together by the force which is acting in the arc of a circle the centre of which is the ankle-joint. But now, a turn or two of the key, *G*, brings the foot under control. If the tarsal deformity be only slight, the pressure at the cuboid or scaphoid is modified; the compression of the tarsus is relieved; the plantar fascia, the plantar muscles, and the tarsal ligaments are actually stretched; besides which, the os calcis is placed under restraint, and in this way the traction force passes through the tarsus directly to the tendo Achillis. The mechanical counter-extension, of course, is at the heel-strap, *H*. It simply retains the foot in a position that allows a certain amount of force to be expended on the contracted tissues. The greater pressure under the heel-strap, however, is exerted by flexing the foot with key *D*, rather than by using the extension at *E*. Particular pains, however, should be taken not to make these combined forces too great. I have seen very extensive excoriations produced by the plaster-of-Paris, and also by the customary methods of treatment. In some cases these unfortunate complications have interfered with active treatment for weeks. I have not, however, in the twelve cases I have treated by this new method, met with excoriations that interfered with treatment in any way. As a matter of precaution I always place several thicknesses of sheet-lint, or a thick layer of absorbent cotton (this latter makes an excellent elastic pad) under the heel-strap and at the sides of the heel-cup. If a very considerable extension is necessary, I pass an additional padded strap over the lower end of the tibia, passing the tapes attached back of the two uprights, securing them in front over the pad. It is a matter of surprise to me how well, with a little care, pressure is tolerated at this exposed point under the heel-strap, and also how little traction, applied in the manner indicated, through the tarsus, is necessary to accomplish the object. In order to inspect the part exposed to pressure without removing the adhesive plaster and the anterior part of the foot-piece, it is only necessary to loosen the heel-strap and turn key *G*, until the extension rod, *F*, drops from the cylinder, when the entire posterior part of the apparatus may be easily removed. The part under the heel-pad should be inspected *once a day*. Thus far in my experience the adhesive strips need renewing every three to seven days. The plaster strips are important. I have used Wyeth's twilled adhesive plaster for this purpose, and prefer it to any other. An important point may be mentioned here: it is always well to overcome almost wholly the lateral malposition of the tarsus before applying direct traction. Time will be saved—and some annoyance also—if this rule be uniformly followed.

The lateral part\* of the tarsal malposition in varus depends principally upon the contraction of the inner portion of the plantar fascia, the inner and upper

\* By this I mean especially those malpositions which depend upon rotation of the foot upon a vertical or antero-posterior axis, or both.

fibres of the abductor pollicis pedis, assisted in some cases by the tibialis anticus and posticus. I have deemed it best as a matter of experience not to adopt the club-foot extension apparatus to the purely lateral deformity, as mentioned before. It is, ordinarily, and especially in infants, a very easy matter to rectify this by any lateral support of gutta serena, tin, or other flexible material. In obstinate cases it is well to make subcutaneous sections to save time. I have found a very useful lateral splint in a modification of

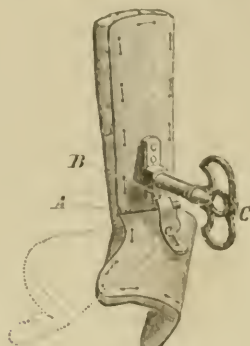


FIG. 4.

Taylor's "ankle-support," which is represented in Fig. 4. My modification consists in the substitution of the lateral hinge, A, and the endless screw, B, for the antero-posterior joint. The dotted lines show the movement acquired by using the key, C. This modification enables us to apply the apparatus accurately to the extremes of varus (or valgus), and to gradually, by means of the key, C, turn the foot to the desired extent. It is well, as pointed out by Dr. W. J. Little, to convert the varus into a valgoid position before removing any lateral apparatus—and Mr. Adams demonstrates the advisability of using the os calcis and the contracted tendo Achillis as a fixed point upon which to extend the tarsus. I have availed myself, in using this lateral splint, of both of these suggestions, and find them very useful and practical.

This splint is applied, as represented in Fig. 5, to that side of the foot toward which the deformity looks. It should be secured by a bandage (the bandage is omitted in the engraving, and two strips of adhesive plaster, Q, Q, are substituted, so that the application of the splint may be more easily shown).

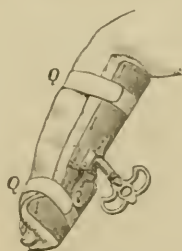


FIG. 5.

The counter-extension surface being large, and the resistance generally slight, the pressure may be very gradually applied. The foot can, under ordinary circumstances, be changed from the varus into a valgus position without any pain whatever. Experience has taught me, however, that after the purely lateral tendency has been overcome, a marked degree of antero-

posterior tarsal deformity still exists in the central and outer portions of the fascia and the muscles which underlie them. The advantages which direct traction gives in overcoming this—the most difficult part of the tarsal resistance—has been already commented on. I may add, in closing, that I have already used this club foot extension apparatus in inflammation of the tarsal- and ankle-joints with advantage.

31 WEST THIRTY-SIXTH STREET, N. Y.

## A CASE OF ACUTE RHEUMATISM WITH MENINGITIS.

By J. L. HICKS, M.D.,

FLUSHING, L. I.

On the 10th of July I was asked to see Mr. C. P., a gentleman 72 years of age, of very robust build, thick neck, florid, and generally full-blooded, and having a very decided rheumatic history. He was sitting at dinner, and complained of a wearying, aching pain in the right arm, of some two or three days' duration. Upon inquiry and examination I satisfied myself that the pain was due to rheumatism of the shoulder-joint, which was very tender and lame. A few days after I was summoned to see him again, when I found the whole arm extremely painful, tender, and immovable. On making a more careful examination of the part, I was surprised to find unmistakable dislocation of the shoulder-joint, of which he gave me the following history:

About five years ago, while living at Westfield, Conn., he had a fall, and the head of the humerus was thrown out. Two eminent surgeons of Hartford came to his assistance, and effectually reduced the luxation, the head of the bone going into its place with a decided click, and the limb was properly secured for rest. Some swelling, however, remained about the joint, and his friends prevailed upon him to consult a well-known "bone-setter" of that neighborhood, who informed him that the joint was dislocated, and invited him to take up his residence at his institution for treatment, which consisted of daily manipulations and movements, the arm being raised each day more and more nearly to a horizontal position, and swept about in various directions, all of which was very painful, and not apparently accompanied by any progress in the direction of cure. At the end of a month he was informed that nothing more could be done, and that the head of the bone could not be kept in place, as a "flange" in the joint had been broken off. He subsequently regained some use of the arm, though its scope of motion was quite limited.

The rheumatism, which began at the shoulder-joint, extended down the arm to the hand; then the right knee-joint became involved, and the disease travelled down to the ankle and foot of the same side; next the left ankle became affected; then the knee, and then the joints of the left arm. During this time, which extended over a period of three weeks, his sufferings were very severe; and it seemed as though remedies of whatever kind, anti-rheumatic (including salicylates, alkalies, lemon-juice, etc., etc.), and narcotics, in so far as they could be safely used, produced very little effect, and as might be expected, in a man of his temperament, under such circumstances, he was choleric and excitable in a very high degree.

No evidence of cardiac implication presented itself, although expected and closely watched for; but at the end of the second week he began to be deliri-



ous at night, and true sleep became more and more difficult to obtain. Bromides in large doses, also chloral, seemed to be totally inefficient. Hypodermic injections of morphia I felt constrained to abandon, as the cerebral symptoms seemed to become more pronounced under their use; while the usual local antiphlogistic measures, though energetically used, seemed to accomplish little or nothing, and excitement passed into delirium, which became mania, whose ominous import was soon confirmed by somnolence merging into coma, which at the end of about forty-eight hours terminated in death on the 8th of August.

The general impression derived from observation of this patient was that of a system saturated and overwhelmed by the rheumatic poison (whatever that may be), and against which no remedies appeared to exert any neutralizing power. Mr. P. had suffered several previous attacks of rheumatism, in one of which I attended him about a year and a half ago, when salicylate of soda was used with very happy effect, and the attack, though severe in its onset, was undoubtedly aborted. An attack which occurred in Connecticut some four years ago was, I am informed, extremely severe, and associated with a delirium, which obliterated from his mind the events of some three weeks of his illness.

The range of temperature was not notably high until the last three days of life; beginning at the outset with a daily fluctuation of from  $99^{\circ}$  to  $101^{\circ}$ , and gradually rising to  $102^{\circ}$ , evening, in the second week, and reaching  $103^{\circ}$ , evening, for the first time, on the 6th, which was not surpassed until eight hours before death, when the temperature reached  $104\frac{1}{2}^{\circ}$ .

The urine was examined a number of times, chemically and microscopically, but nothing was found to indicate kidney disease. Its quantity, though not accurately measured, I judged from information not to exceed the normal, and I could not at any time find albumen, nor anything of special significance, save a pretty large proportion of lithates, as might be expected.

There was neither nausea nor vomiting at any time during the attack. The bowels were at times considerably distended with wind, and for the most part rather inclining to be free, and only during the last two days of life were they confined at all since the beginning of his illness, when on two or three occasions he was assisted by laxatives.

Muscular movements of a spasmodic character occurred during the last day only. They were confined to the right arm, and in a less degree to the leg, and were associated with occasional tremor. No contractions of facial muscles were observed.

The autopsy, twenty-four hours after death, was, it is to be regretted, limited to the head, and developed the following facts: the head was rather large, measuring twenty-three inches in circumference, and the brain weighed a little over fifty ounces. On removing the calvarium, very decided evidence of meningeal inflammation at once presented itself. The superficial vessels were very full, and showed in strong relief against the whitish linear deposits of lymph in which they seemed at places to be imbedded. The layers of the arachnoid were adherent at several places along the line and on both sides of the superior longitudinal sinus, and patches of lymph were scattered at various points over the convexity of the brain surface. Underneath the membranes, and lifting them up from the brain, was a very considerable effusion of fluid and lymph, filling the meshes of the pia mater and extending between the convolutions. This effusion was most marked upon the summit, though it

existed in a less degree at the base, and a very considerable effusion of both fluid and plastic material was found in the fissure of Sylvius. At the base of the brain the vessels seemed less distended with blood than elsewhere. No embolism or plugging of the smaller vessels could be found anywhere by the coarse method of examination pursued. The surface of the brain had a pinkish, cream-colored tint, and seemed rather firmer than usual, and on section the brain-substance exhibited numerous sharply-defined puncta. Very little fluid was found in the ventricles, but the choroid plexus presented a distended and infiltrated appearance.

I publish this case for the purpose of adding something to the very scanty literature of cerebral rheumatism. The unsettled state of opinion existing as to the pathology of cerebral complications of acute rheumatism is doubtless due to a lack of uniformity in the anatomical conditions observed after death. A very elaborate and interesting paper upon this subject, by Dr. Da Costa,\* in which twelve cases are reported, goes to demonstrate this conclusion very forcibly. Of these twelve cases, eight ended fatally. No examination of the brain was made in three of the eight. Bright's disease existed in two, and possibly in one other, in which no autopsy was made, but in which albuminuria, but no casts were found. Pericarditis and endo-pericarditis occurred in two cases. In the others, no cardiac lesions of material importance were discovered. Plugging of the finer brain-vessels was found in one case, and in the opinion of the author in another that recovered, though he admits the possibility of true meningitis having existed in this instance. In case eight, in which it is to be regretted no examination was made, there were symptoms which pointed very decidedly to meningitis, or at least to localized intracranial pressure. Be that as it may, in *none* of the autopsies was true meningitis met with.

The rarity of this complication is illustrated by the fact that only five or six lines are devoted to the subject by Senator in his article on acute rheumatism in "Ziemssen's Cyclopaedia," merely stating two or three authors who have reported such cases. Niemeyer mentions the possibility of actual meningitis in acute rheumatism, while Hammond has met with one case, the particulars of which, however, are not given. Other authorities are almost equally meagre in their accounts of this disease; and from the testimony that is presented, it is impossible to avoid the conclusion, that of the cerebral complications of acute rheumatism true meningitis is a rare event.

The nervous disturbances appear to depend upon a considerable variety of contingencies: heart disease, and the disturbances of circulation thereby produced; embolism and plugging of small cerebral arteries; uremia, from associated kidney-degeneration; blood-degeneration in connection with protracted high temperature, and not improbably blood-poisoning, due to the presence of the special *materies morbi* of the disease. Whatever may be the facts in individual cases, the history of cerebral rheumatism exhibits a type of disease of exceedingly grave character, and in which therapeutic measures, of whatever kind, seem of little avail, and we are doubtless justified in inferring that we have not merely rheumatism to deal with, but something existing collaterally or anteriorly to the rheumatism, and upon which it is engrafted.

\* Art. Cerebral Rheumatism, *Am. Jour. Med. Science*, January, 1875.

Finally, the question presents itself—are we justified in regarding the meningeal inflammation which occasionally occurs in the course of acute rheumatism as a *rheumatic meningitis* proper, in view of the fact that a form of meningitis, closely allied by its anatomical characters and its clinical history to the so-called rheumatic form, occurs not infrequently in the course of other grave diseases, particularly the essential fevers, Bright's disease, cirrhosis, tubercular phthisis—in short, in cachectic states of the system generally? This form, called by some authorities subacute, or secondary meningitis, appears to differ in no very essential particulars from that which occurs under the circumstances just considered. It would seem that before fixing upon the term “rheumatic meningitis,” the metastatic character of the disease should be definitely proven, and its essential rheumatic origin clearly evident; otherwise, by parity of reasoning, we are bound to accept the terms, “uræmia meningitis,” typhus, and typhoid meningitis, etc. Refinements and expansion of nomenclature must inevitably take place in correspondence with anatomical and pathological research, and it is surely wise, in view of the confusion already existing in nosology, to avoid and eliminate all terms not founded upon strictly scientific distinctions.

## PRACTICAL OBSERVATIONS MADE ON TWO PARALLEL CASES OF PYOTHORAX TREATED BY INCISION, DRAINAGE, AND IRRIGATION.

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To deal intelligently with the question of the treatment of empyema, it is necessary to bear in mind that as soon as a pleuritic effusion acquires a purulent character, it may be safely looked upon as a simple abscess, and be treated as such by immediate incision with subsequent thorough drainage.

By contemplating the anatomical changes wrought by this disorder in the condition of the organs in question, we shall be led logically to the measures required to alleviate, or eventually to remove the disturbance.

*First*, the effusion will encroach upon the space normally allotted to the lung; hence compression, loss of functional capacity, with its immediate or remoter results, as dyspnoea and change of structure.

*Secondly*, we see a large hermetically occluded abscess-cavity, its walls furnished with an amply developed system of lymphatic ducts and stomata, all of them portals for the resorption of the fever-generating matter contained in the pus which fills the pleural sac under a high endothoracic pressure. This causes high and constant fever, with consequent hectic emaciation.

*Thirdly*, pseudomembranes lining the lung surface and parietes will soon form. In the course of a few months they will become tough and rigid, and the lung thus encapsuled, is doomed to structural degeneration, even if the original cause of compression, *i.e.*, the effusion, be removed. It is obvious that it would be impossible to draw a sharp boundary line, indicating where and when this functional diminution of the lung does definitely take place; but it will suffice for practical purposes to know that every additional day during which the consolidation of the false membranes can progress undisturbed, will bring the patient to that grave emergency, and will, after operation, proportionately retard the process of healing.

In its present state it would be idle to discuss the question whether or no an empyema ought to be operated on. The only point to be decided on is: *When* should the surgeon's knife interfere?

There are, and always will be, timid practitioners, who even in critical cases will delay—will rely rather on nature's healing powers than face the responsibility of applying the knife to a desperate case. Thus the favorable moment is lost, and the patient either succumbs, or, if operated on, retains, perhaps at the price of a lifelong thoracic fistula, a doubtful existence, the danger of pulmonary phthisis hanging above his head like a doom.

Accumulated historical evidence shows that a spontaneous healing of empyema is an extremely rare thing; that even in cases where spontaneous evacuation happened to take place, through a favorable locality, and in a fortunate manner, the patient ultimately succumbed to the fever caused by decomposition of stagnant pus. Generally, the spontaneous opening is too small, and establishes itself without reference to efficient drainage; the stagnant secretions, coming in contact with air through the bronchi or otherwise, will putrefy, and a fatal septic fever will soon finish the scene.

In those instances where the tardy practitioner, urged by the constant emaciating fever, and the knowledge of its cause, finally concludes to drain the source of the patient's sufferings, the operation will not yield as satisfactory a result, “quo ad valetudinem,” as when employed at an early stage of the disturbance. The compressed lung has become sealed up in its pseudomembranous coating and cannot expand easily; the two laminae of the pleura cannot come into renewed contact, and the cavity between collapsed lung and parietes cannot diminish by gradual cohesion of the walls. The result is a permanent thoracic fistula, and the host of evils possibly coming from it.

On the other hand a watchful practitioner, warned by the high and constant fever, will soon ascertain, by the aid of a fine aspirator needle, the presence of pus in the pleural sac. After this he will not hesitate to incise the abscess, to irrigate and drain the cavity, and accordingly will meet with the most gratifying results. The conditions met with during an early stage of the trouble are very favorable for a restitution *ad integrum*; the yielding pseudomembranes will easily give way before the expanding lung; the cavity by a gradual and progressive adhesion of the pleura visceral and parietal, will be closed up definitely in a comparatively short time.

It will be seen from the history of the two cases following, that these theoretical propositions are really borne out by practical experience:

CASE I.—February 17, 1878, I saw, by request of Dr. A. Frech, J. A.—, an anæmic boy of eight years, who had been suffering from pleuritis for a fortnight. Physical examination divulged the presence of an effusion reaching up in front to the second rib of the right side; dyspnoea and hectic emaciating fever made the boy's condition very pitiable. Internal medication having had no noticeable effect upon the malady, paracentesis was at once decided upon. An india-rubber tube was attached to a grooved needle; both were filled with water; the free end of the tube was immersed, and the needle was thrust into the pleural sac through the fifth intercostal space on a line with the axilla. Twelve ounces of a straw-colored, fibrinous slightly puriform liquid were voided. Entrance of air through the needle being out of question, the dull percussion-sound, now to be heard all over the exten-



of the right lung, was accepted as a sign of a prompt expansion of the formerly compressed organ. Dyspnoea and the cyanotic hue of the integuments were at once apparently diminished, and the needle was thereupon withdrawn. The patient's condition was much improved for the three weeks following; he ate and slept well; his temperature, which previous to the tapping touched 105° F. nightly, never rose above 102° F., and the effusion showing no tendency to increase, hopes were entertained that resorption would soon follow. Unavoidable circumstances prevented me from seeing the patient until May 4, when his condition was such as to call for immediate action. Pus having escaped in the track of the punctures, an abscess formed underneath the serratus anticus muscle. This abscess was incised, but continued to discharge very large quantities, first of kind, later of septic pus. The child was almost a skeleton, his pleura filled with fetid pus up to the third rib. With the assistance of Dr. L. Straus, the boy was anesthetized, whereupon an incision was made through the fifth intercostal space into the pleura, and a large quantity of thick, fetid pus escaped. A soft rubber drainage-tube being inserted into the wound, a stream of a lukewarm one per cent. solution of carbolic acid was turned into the cavity. When the injected fluid ceased to return in a turbid state, the end of the drainage tube was trimmed short and transfixed with a pin. The wound was covered with a large cake of oakum. Irrigation was thus employed twice daily, and in the course of a few days the change in the boy's condition became agreeably apparent. The temperature fell and remained normal, the purulent discharge, which was at first copious, diminished considerably, the patient's appetite improved, he slept well, and by May 17th had gained flesh perceptibly, and spent most of his time out of bed.

June 15th.—Fistula of abscess under serratus closed; the boy is fat and strong, and constantly out of doors; secretion serous and very scarce. A thinner drainage tube was inserted. Daily gymnastic exercises, and the use of a laterally inclined seat have greatly diminished lateral curvature.

September 23d.—Difficulty being experienced in retaining the elastic tube, it was replaced by a thin strand of horsehair, which answered excellently all purposes of drainage. To ascertain the capacity of the remaining empty space, a very slender silver catheter of one-eighth of an inch in diameter, is introduced from time to time, and thus it is ascertained that the cavity is slowly but steadily diminishing.

October 5th.—After inserting the catheter, not one drop of fluid escapes. The cavity having filled up, the closing of the remaining fistula is accelerated by a few injections of a five per cent. solution of chloride of zinc, and is accomplished.

October 30th.—On careful examination, the facts regarding the patient's present condition are as follows:

Minimal lateral curvature in erect attitude. The right side of thorax, formerly flat and anteriorly sunk in, is rounded out to its normal outline, presenting no difference from the left side. Respiratory excursions of ribs absolutely identical on both sides. Percussion and auscultation give likewise proof of a perfect restoration as regards both dimensions and function of right lung. General condition florid and vigorous.

CASE II.—At the request of Dr. W. Balser, L.P., a delicately shaped girl of seven, was seen by me at Centerville, N. J., a fortnight after the commencement of an attack of pleurisy. The case presented the most urgent symptoms of an unusually large effusion in the right pleural sac, together with a strong

probability of its purulent character. The temperature rose every evening to 105° F. and above; percussion in the whole extent of right side of thorax absolutely dull, and no respiratory sounds to be heard, except some bronchial noise, apparently transmitted from the trachea. Patient very dyspnoic, restless, and emaciated. A good-sized pointed canula being inserted into the sixth interspace, thirty-six ounces of a sero-purulent fluid were drawn off by the aid of an aspirator. Towards its close the operation elicited frequent coughing, and the dullness changed over the whole extent of the right lung into a loud, full, and somewhat tympanitic sound. On auscultation, vesicular breathing accompanied by a few râles was audible. Breathing, pulse, and color of integuments having visibly improved, we left the patient free from the imminent danger of asphyxia. The following day, the first time since her illness, she ate with relish. Temperature in the evening 101½° F. This did not last long, however. Gradually all the old symptoms returned, and the dyspnoea, fever, and wretched general condition of the little patient soon compelled us to seek for a more radical relief than aspiration could afford. Accordingly, April 4th, with the aid of Dr. Balser, incision was performed in the sixth interspace of axillary line. An elastic tube was placed in the opening, and the cavity was well washed out by a stream of a half per cent. solution of carbolic acid. By April 11th we had a temperature of 102° F. in the evening, a better appetite, and good night's rest. April 20th.—With two daily irrigations, secretion had considerably diminished, wherefore one irrigation per diem was ordered; fine appetite; the child spent most of the time running about the rooms, and gained a good deal in flesh and color. To counteract the slight lateral curvature, gymnastic exercises on a small trapeze were instituted with best effects. June 1st.—Secretion having ceased, the drainage-tube was removed. June 14th.—Fistula firmly healed.

In critically examining the points presented by the two foregoing cases, we find that they afford good material for a parallel. The conditions offered by both subjects are in the essentials identical, and therefore the conclusions deduced somewhat approach the stringency of an experimental proof. Both patients are slight anemic children, of nearly the same age; in both instances the seat of the disturbance is the right pleural cavity; the nature of the mischief is the same in either case: a sero-purulent effusion. Both cases are and remain throughout free from complications, and on both patients the same methods of treatment are employed. As regards therapy, the only difference is to be found in the different lengths of time elapsed between the puncture and incision respectively. Both cases were punctured a fortnight after the invasion of the illness; the time, however, that elapsed between puncture and incision is 76 days in Case I., 16 days in Case II., and the conspicuous difference in the results seems to correspond to, and wholly depend upon, this circumstance. In the table, page 408, will be found the numerical expression of the difference in the results as regards duration.

One glance will show that by the delay of 60 days the patient concerned, *first* spent 60 days of illness without the slightest prospect of improving; *secondly*, that the conditions for his recovery, by the time he was operated on, were greatly deteriorated, the pseudomembranes having become more dense and unyielding. Accordingly we see that, after incision, it took in Case I. 179 days to achieve what in Case II. was accomplished easily in 53 days; while Case II. was restored in less than 3 months, Case I. had to be irri-

gated and bandaged for 9 months—a difference of exactly a half year.

|              | TIME ELAPSED:                  |                                |                            | Total. |
|--------------|--------------------------------|--------------------------------|----------------------------|--------|
|              | Between incision and puncture. | Between puncture and incision. | Between incision and cure. |        |
| Case I.....  | 14                             | 76                             | 179                        | 269    |
| Case II..... | 14                             | 16                             | 53                         | 83     |
| Difference.. | —                              | 60                             | 126                        | 186    |

Then again, it will be observed that in Case II. incision was practised 30 days, in Case I. 90 days after the commencement of the illness; the proportion is as 1:3. Summing up the numbers representing the entire duration of each case, we find for Case II. 83 days, that is, somewhat less than 3 months; for Case I., 269 days, that is, almost 9 months; and it is curious to observe that here also the figures expressing the proportion are as 1:3. Thus we see that in our two cases the length of time required for recovery is in direct proportion to the length of time that elapsed between the beginning of the illness and the operation. And if we remember that the initial symptoms in Case II. were decidedly more urgent than in Case I., that both the compression of the lung and the accompanying disturbances were graver there, our argument in favor of the possibly earliest operation for empyema will be still more strengthened.

The technical details of the operation are so simple that every practitioner possessing a moderate amount of self-reliance and dexterity can safely undertake it. An incision running parallel with the rib, one and a half inches long, will divide the skin of the interspace (third to sixth), chosen according to circumstances. The serratus is next divided, then the fascia covering the external intercostal muscle is split near the upper edge of the lower rib, whereupon the knife can be laid aside, the intervening tissues being separated by the aid of two forceps and a director. A slight exertion will suffice for entering the pleura, which occurrence will manifest itself by the copious gushing forth of pus. Now a probe-pointed knife passed into the opening will easily enlarge it sufficiently for receiving a good-sized india-rubber tube, which can be prevented from slipping into the cavity by transfixing its end with a pin. An irrigator can be had or can be improvised everywhere; carbolic acid is likewise ubiquitous, and, after lapse of the first critical week, the most unintelligent parent can be taught to use the irrigator successfully. It is important to insure perfect drainage, even more so than to irrigate often. Avoiding stagnation, the secretion will soon become sparse and serous, and the number of daily or weekly irrigations may be diminished accordingly. For the first dressings, oakum or any other resorbent antiseptic material will answer, care being taken, however, to place between the skin and the oakum a piece of oil-silk, to prevent irritation. As soon as the general condition permits, gymnastics ought to be assiduously encouraged; and herein parents can do more than the physician. Gymnastics will exercise a very beneficial effect on the general nutrition, as well as on the correction of the inevitable scoliosis.

In summing up the conclusions derived from the facts presented in the foregoing statement, we may

lay down the following general principles concerning the treatment of empyema:

In every instance of pleuritic effusion, where during the course and after the lapse of the second week, no abatement of the fever and no decrease of the volume of the exudation can be ascertained, the suspicion of a purulent process will be very strong. A probatory puncture will or will not establish the fact of the presence of pus. If thick pus be found, incision and drainage ought to follow immediately. If the effusion be serous or slightly purulent, its removal by aspiration will certainly improve the momentary condition of the patient, besides affording better chances for the resorption of the remainder of the exudation. If the fluid accumulate, and the fever be renewed again, incision ought to be practised without delay.

Symptomatically, our operation admirably fulfils all that can be desired. It disposes of imminent asphyxia, insures, by the aid of drainage, complete apyrexia, and, early resorted to, offers most favorable conditions for a restitution to a *status quo ante*. And, considering the relative certainty of success following the operation, then the irreparable damage surely to accrue from long delay, finally the facility of methods to be employed in operation and after-treatment, it seems almost culpable in the physician of modern attainments not to throw the whole weight of his authority into the scales for overwhelming the patient's or his relatives' natural dread of a bloody operation.

Hoping that the perusal of this small contribution will induce some colleagues to interfere early in cases of empyema, I wish to state my belief that, by resorting to the operation, the life and health of many a sufferer may be successfully saved.

## IODINE IN MALARIAL FEVER.

By WM. ANDERSON, M.D.,

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In the *American Practitioner* for October, 1878, appears a short and practical article on the treatment of intermittents with iodine, by Dr. G. W. H. Kemper. He narrates the experience of himself and several others who have tried this remedy, and concludes that the results are equal to those obtained from quinine. He is anxious that others should experiment and report.

As the use of iodine in malarial affections seems to be comparatively unknown, I shall briefly relate my experience with it. During the last four years, I have prescribed it in almost every case of a malarial nature which came under my care. I made no selection of cases, and they embraced all ages and conditions of life. The majority were dispensary patients, and resided chiefly in that section of South Brooklyn known as Gowanus. The severer forms of the disease are not so common in this locality, but many of the cases were serious enough to thoroughly test the efficacy of the treatment. Dr. Fordyce Grinnell, physician to the Wichita Agency, Indian Territory, had doubtless many typical cases in the 147 which he reports, and he considered the results equal to those obtained from sulphate of quinine.

The routine prescription was five to fifteen minims tincture of iodine, in a wineglassful of water, three times a day after food. For children I usually gave about five minims in syrup or glycerine, and to adults seldom more than fifteen minims in plain water. As the simple tincture is not miscible with water, it is



necessary to add a little iodide of potash to the mixture; or the compound tincture of iodine may be used, keeping in mind that it has only half the quantity of iodine contained in the simple tincture. In dispensary practice, or where the greatest economy is desired, the compound liquor of iodine may be used, making allowance for the difference in strength. Taken after food, and freely diluted, it is quite palatable, and rarely irritates the stomach—certainly not nearly so often as the ordinary quinine mixtures. It is advisable to warn mothers that if the child does reject a dose, it will cause an ugly stain on the linen.

The results of this treatment in over 200 cases greatly exceeded my expectations. Though it is impossible to follow up cases so accurately in dispensary as in hospital practice, a large percentage returned, sufficient, along with my private patients, to make it certain that the results were not merely *post hoc* but *propter hoc*. In quite a number of cases there was no return of the paroxysm after the commencement of the iodine; and it was seldom necessary to repeat the usual two-ounce mixture (teaspoonful doses). In a few cases apparently no benefit was derived; and in several the symptoms returned on stopping the medicine, but left again on its renewal.

Iodine possesses in an eminent degree the antiseptic properties so prominent in those drugs which have been found useful in malarial affections, such as quinine, arsenic, carbolic acid, eucalyptus globulus. This may serve as a hint as to its *modus operandi*.

There is no novelty in the use of iodine in malarial disease, as it has been used in this country many years ago, and also on the continent of Europe; but it seems to be less known than its merits deserve.

To sum up: Iodine seems to be equally efficacious with quinine in the treatment of intermittent fever; is much more palatable, especially to children; possesses no appreciable bad effects; and is infinitely cheaper—a consideration not to be despised these hard times.

## Reports of Hospitals.

### COOK COUNTY HOSPITAL, CHICAGO.

#### PUDENDAL HEMATOCELE.

Mrs. T., an Irish woman of vigorous appearance, 40 years old, came into the hospital May 2, 1878, complaining of a swelling in her privates. She said her husband had, a week before, come home one night drunk, and in repeated intercourse had used great violence. The result was an appearance immediately of a swelling on the right side of the vulva, that had caused her some pain and prevented her sitting down without the greatest suffering. She had also experienced much suffering in standing. She was quite feverish on admission, the pulse rate being 126, and the temperature  $103\frac{1}{4}^{\circ}$  F. The right labium majus was found to be greatly swollen, and on the mucous surface was an opening rather more than a quarter of an inch in diameter connecting with a considerable cavity in the interior of the swollen mass, which cavity was full of coagulated blood. The cutaneous surface of the right labium, as well as that about it, gave evidence of slight bruising. Just above the right groin a dark discoloration of skin gave evidence of extensive subcutaneous injury.

The opening in the labium was slightly enlarged by the insertion of the finger, the clots were broken

up and evacuated, and a T-bandage drawn tightly over a pad of cotton placed upon the swollen surface. There was no hemorrhage. In two days the fever had disappeared. The recovery was rapid.

#### CASE OF A WOMAN WHO, WITH SERIOUS UTERINE DISEASE, WALKED A PEDESTRIAN MATCH OF SEVERAL HUNDRED MILES.

Mrs. W. R., a muscular little French woman, 19 years old, who had lately taken up the business of pedestrian, was admitted into the gynecological ward February 6, 1878, complaining of pain and tenderness in the abdomen, headache, and too profuse uterine hemorrhage.

She said that two years ago she gave birth to a child at term. She had twenty convulsions at that time. The child had nine convulsions, and died at the end of one day from its birth. Since then she has never enjoyed as good health as previously. Her menstruation has been irregular, sometimes disappearing for six months. Six months after the labor referred to she walked 333 miles in five days.

Five weeks before admission she aborted, being three months advanced in pregnancy. The cause appeared to have been a fright which she received two weeks before the miscarriage. She remained in bed eight days, then got up and was about the house, bleeding more or less every day. In a few days, feeling better, she walked for exercise thirty miles in four hours. Following this she bled more.

The uterus was found, on examination, large and tender; there was granular degeneration of the os, and a unilateral laceration of the cervix. The sound passed into the uterus two and three-quarters inches, developing no tenderness or pain. A free application of chromic acid was made to the os, which produced a large eschar that did not separate for several days. Following the application there was considerable pain and congestion of the vaginal mucous membrane. Glycerine tampons were introduced and codeia given internally as required for pain. The patient was better by the 15th of February, nine days after her admission, and was allowed to go out.

A few days later she stated to one of the hospital internes whom she met on the street, that after leaving the hospital she did not have an unpleasant symptom, not even a pain of any kind. In less than three weeks after leaving the institution she walked a public match of several hundred miles against time.

#### RECTO-VULVAR FISTULA—OPERATION AND SLOW IMPROVEMENT—ULCERATION AND STRICTURE OF RECTUM.

Mrs. F. L., æt. 25, was admitted October 20, 1877. She had always enjoyed good health till after her marriage, which took place three years before. When married a year and a half she was delivered of a child at term. This was her only pregnancy. Her labor lasted nearly four days and resulted in considerable laceration of the perineum, although the delivery was accomplished without instrumental aid. A month after confinement an abscess which had formed in the right labium majus was opened.

Subsequent to her confinement she had had bearing-down pains constantly in her back and radiating to her thighs, leucorrhœa, headache, and general debility. Three months before admission she had noticed that fecal matter was escaping through the vagina. Two months later she began to have pain during the act of micturition.

She was not aware of ever having had syphilis, although her husband had at one time some secret

disorder, during the continuance of which he had frequent intercourse with her. She declared she had never had sore throat or any enlargement of glands or any skin disorder, although an acne of the face was plainly noticeable.

She was examined and found to have a recto-vulva fistula.

She was given an antisyphilitic mixture of iodide of potassium and iodine; a cleansing wash was ordered, and iodine and creosote (sat. sol.) was applied to the edges of the fistula.

At the end of a month, no improvement having occurred in the fistula, it was laid open by Prof. T. D. Fitch with the galvano-cautery. The operation transformed the fistula into a laceration of the perineum of the fourth degree. At the same operation two small hemorrhoids were removed.

Fomentations were applied to the parts for a few days and morphia given for pain.

On December 6th, the ulcerated surface was ordered to be dusted with iodoform daily. For a time, under this treatment, healing went on rapidly; then it became tardy, and finally ceased. During January and February several applications of solid nitrate of silver were made. March 4th, a speculum was introduced into the rectum, when the anterior wall of that cavity was found to be ulcerated over nearly two inches from the margin of the wound. The sides of the perineal rupture were by this time nearly cicatrized.

To the ulcerated surface of the rectum various stimulating applications were made from time to time, with the effect of healing the larger portion of it by the end of three months. For a time a saturated solution of tannin and glycerine was applied every second or third day. The improvement from this was hardly perceptible. The most effective local treatment was the application of pure nitric acid once in ten to fifteen days. This was followed by most marked improvement both in the healthy appearance of the granulations and in the abbreviation of the ulceration. In making the applications great care was exercised to have the quantity of acid used (on a swab of cotton) very small, and to have it touch only the ulcerated surface. She left the hospital May 28th, 1878, with several small ulcerated spots on the anterior wall of the rectum unhealed. There had developed during the healing that had taken place a stricture of the rectum about two inches from the verge of the anus and at the upper border of the healed surface. At the most constricted portion the diameter of the gut was three-quarters of an inch. Defecation was quite painful, unless the feces were very soft.

Several times during the last month's residence in the hospital the patient declared she passed considerable quantities of purulent matter per rectum. This fact led to the suspicion that ulceration had taken place above the stricture, but this suspicion could not be verified by an examination.

The patient did not menstruate but twice during her stay in the institution, both times within two months of her departure.

**THE TREATMENT OF SEA-SICKNESS.** — C. J. S. Digges, M.R.C.S.E. (of St. Louis, Mo.), recommends hypodermic injections of morphia over the epigastric region in sea-sickness. In 200 passengers experimented upon, the majority were completely and permanently relieved; in the others, relief for twelve to forty-eight hours followed, allowing the partaking of food during the interval.

## Progress of Medical Science.

**TREATMENT OF DIPHTHERIA BY LARGE DOSES OF CALOMEL.** — Dr. Reiter has seen very excellent results from the use of large doses of calomel in severe cases of true diphtheria. To adults he gives twenty grains, and repeats the dose several times at intervals of an hour, and then gives seven and a half grains every hour, until the stools are entirely watery, and, when possible, colored with bile. To small children, the drug is given in doses of three to nine grains, in ice-water, until the same effect is produced. Collapse and salivation have not occurred in any of his cases. He has administered as much as 230 grains of calomel in the course of a few days to children three and four years of age. He recommends the internal use of chlorate of potash at the same time. Of three children under five years of age, one died on the second day of treatment. — *Philadelphia Medical Times*, 1878, No. 264, and *Centralblatt für Chirurgie*.

**TREATMENT OF OBSTINATE SCIATICA BY SUBCUTANEOUS INJECTIONS OF NITRATE OF SILVER.** — Dr. Durean has collated the cases of obstinate sciatica treated in the Parisian hospitals by Damaschino and Guérin-Rose on Luton's plan, and has deduced from them the following conclusions:

1. The subcutaneous injections of nitrate of silver are to be recommended in cases of inveterate sciatica.
2. These injections, though irritating to the tissues, may be undertaken without any fear of evil consequences.

3. The method renders it possible to reach the diseased spot and to insure the action of the remedy.

4. Improvement and recovery take place rapidly under this treatment.

5. The subcutaneous injections of lunar caustic are more active and less dangerous than the actual cutting, which is so frequently recommended for sciatica.

Luton employed a ten per cent. solution of the nitrate of silver, and injected from twenty to twenty-four drops, but Guérin-Rose uses a fifteen per cent. solution, and injects fifteen drops, and Damaschino takes one of only four per cent., and injects only five drops. Of twelve cases treated by Guérin-Rose, most were cured, a few were improved, and a few were not affected at all. No unfavorable consequences were observed in any of the cases. Dr. Durean advises that the needle be introduced deeply, so as almost to reach the nerve. — *Allg. Med. Cent. Zeit.*

**ON THE USES OF ESERINE, ATROPINE, AND DUBOISINE, IN OCULAR THERAPEUTICS.** — Dr. Wecker, of Paris, sums up as follows the properties of the two alkaloids, eserine and atropine. Eserine: 1. Lowers the intraocular pressure; 2. Diminishes the conjunctival secretion by contraction of the vessels; 3. Lessens the diapedesis in general. Atropine, on the contrary: 1. Increases the intraocular pressure by vascular dilatation, which may go so far in some cases as to produce glaucomatous phenomena; 2. Increases the conjunctival secretion; 3. Rolls back the iris towards the circumference of the anterior chamber, and forms the stasis in the eye of liquids destined to filtrate out. He holds, that atropine should be rejected and eserine employed in its stead in all cases of corneal lesions; in iritis, however, atropine still retains its pre-eminent place. Duboisine is still more active as a mydriatic than atropine, and is especially valuable in the cases in which the latter excites conjunctival inflammation. — *Lyon Médical*.



# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## HYSTERO-EPILEPSY.

NEARLY ten years ago, in the first volume of the *Leçons sur les Maladies du Système Nerveux*, "Charcot described with great clearness a fearful malady to which he applied the name hystero-epilepsy. Similar cases had been reported by various French writers from time to time, at former periods, even as far back as the miracles of the Jansenists and the "convulsionnaires" of St. Medard. But to Charcot belongs the credit of having first made exact scientific investigations in this direction, and during the last five years he has virtually made the subject his own. This topic appears to present peculiar fascinations for our transatlantic brethren. The French medical journals teem with discussions upon hystero-epilepsy, as well as upon the kindred matter of metallo-therapeutics; and the interest excited thereby has become so great that a commission, composed of Charcot, Luys, and Dumontpallier, was appointed by the French Academy to prepare a report on this topic. The infection has also spread across the British Channel, and several of the more important English periodicals devote a considerable portion of their columns to its discussion.

Extremely few observations in this direction have been made in our own country. Whether it is that the disease is of much rarer occurrence here than abroad, or that it has hitherto passed unnoticed because the attention of the profession was not directed toward it, we will not venture to decide. It is a very significant fact—and one to which we shall revert at more length hereafter—that the chief breeding-place of this disease appears to be within the walls of the Hospital of la Salpêtrière.

In depicting the symptoms of this affection we shall rely, in the main, on Charcot's masterly description. The disease belongs almost exclusively to the female sex. It usually begins in the first few years after the establishment of menstruation, although, in rare cases, it may develop before the inauguration of the menstrual epoch and may continue after the latter has

ceased. The etiology, apart from the causal factors that are operative in ordinary hysteria, is extremely obscure, and we are merely able to gather from the vague statements that have been made in this regard, that violent mental emotions of a depressing nature sometimes act as exciting causes.

The disease may be divided, for the sake of convenience, into two periods, viz., the paroxysmal and the interparoxysmal. We shall first describe the condition of the patient during the latter stage.

One of the most prominent symptoms is hemianæsthesia, involving the face as well as the upper and lower extremities of the same side. Tactile sensibility, together with sensibility to pain, are both involved to an extreme degree. In fact, the analgesia and anæsthesia are usually so complete that the skin of the patient may be completely pierced by a needle or other sharp instrument, without any knowledge of the fact being evinced. Insensibility of the affected side to variations of temperature is also a common occurrence. If the skin of the anæsthetic limbs be pricked with a needle, blood will not flow as readily as from the opposite limb, thus proving that anemia of the parts also exists. The anæsthesia frequently involves the special senses. Thus, taste and smell may be either diminished or entirely wanting on the affected side, while on the other side of the median line, these senses are perfectly normal. Sight is also notably involved, either as simple amblyopia or in the remarkable manner first described by Galewski under the name of achromatopsia. When this symptom is present, the patient is unable to distinguish either one or several of the primary colors with the affected eye. In rare cases the achromatopsia is absolute; that is to say, a picture, however variegated its component tints may be, appears to be drawn in black and white. It has been observed by Charcot that, as a general rule, red and blue are the colors which are usually retained, even when all the others are lost—and, furthermore, that violet disappears most readily.

The anæsthesia does not involve the viscera, and, in fact, hyperæsthesia of one of the internal organs, viz., the ovary, is an essential feature of the disease. The ovarian tenderness is always on the same side as the anæsthesia; and if the former condition exist on both sides, the anæsthesia usually extends over the whole body. Considerable importance has been attached, especially by French neurologists, to ovarian hyperæsthesia as a symptom, not alone of the affection under discussion, but also of the ordinary forms of hysteria. Usually this symptom is observed only on the left side, very rarely on both.

The skin, together with the muscles situated over the site of the left ovary, are generally analgesic as well as anæsthetic, and pain is only produced in this region when deep, firm pressure is made with the fingers, and the ovary is thus pressed against the posterior walls of the pelvis. The hyperæsthetic ovary is fre-

quently the starting point of an aura which precedes an hysterio-epileptic seizure, and we shall describe this at further length in the description of the paroxysm.

A certain amount of caution must, however, be exercised in making a diagnosis of ovarian tenderness. We have seen well informed, judicious physicians make a diagnosis of this condition from a simple affirmative answer on the part of the patient, when, pressure having been made over the suspected ovary, she is asked whether tenderness exists or not. It must be remembered that hysterical patients can manufacture to order any symptom regarding which we interrogate them. We must also be able to exclude inflammatory disturbances, either in the ovary itself or in some of the surrounding pelvic tissues. In addition to all the symptoms we have just mentioned, the ordinary and less severe phenomena of hysteria are commonly present.

Although this condition may last for years, and sometimes even for a lifetime, the physical and mental condition of the patient may, in other respects, be in a normal state. But the distinguishing features of this affection are not to be found in the phenomena which have been thus briefly sketched, but rather in the paroxysms which appear at varying intervals. In some cases, the paroxysms appear with fearful frequency. Charcot relates the history of a patient who had 150-200 in a single day.

The paroxysm may be divided into the following stages, viz.: the epileptiform period—subdivided into the tonic and clonic stages, the period of violent movements (*état des grands mouvements*), and the emotional period (*periode passionelle*).

Sometimes the attack begins by an hysterical aura, usually starting from the hyperæsthetic ovary.

The aura begins by lancinating pains in the site of the ovary, which last a few minutes. A globus hystericus then ascends from the ovary to the epigastrium, where it produces nausea and palpitation of the heart. Then follows buzzing in the ear on the same side as the hyperæsthetic ovary, with pain in the corresponding temple. The patient finally becomes unconscious. In other cases, unconsciousness occurs without any previous aura. The paroxysm begins suddenly, the patient utters a cry, the face becomes extremely pale and she loses consciousness. Tonic rigidity immediately appears in all the muscles of the body, the patient foams at the mouth and sometimes bites the tongue. The face now becomes cyanosed, the muscles relax and the breathing becomes stertorous in character. Clonic convulsions next make their appearance throughout the body, and with them the first stage closes. Hitherto the phenomena have been simply those of an ordinary epileptic fit, and last only a couple of minutes. The clonic movements subside and the stage of violent movements (*grands mouvements*) begins. The patient throws the limbs in all directions, arching the body and throwing her-

self alternately on the occiput and heels and from one side of the bed to the other with almost inconceivable rapidity and violence, so that several men are required to prevent her doing injury to herself. After this stage has lasted for a few minutes, the patient suddenly passes into the emotional stage. In this period, the countenance of the patient depicts the liveliest emotions, such as hate, fear, joy, sorrow in the most vivid manner, and with an instantaneous transition from one to the other.

The patient then usually laughs or cries in the ordinary hysterical fashion, and soon subsides into her normal condition. Sometimes, however, it is found that various kinds of hallucinations, paralysis of the bladder, and perhaps of the constrictors of the pharynx, persist for several days after the attack.

All the paroxysms are not, however, of the typical character which we have above depicted. Sometimes one stage predominates to such an extent as to render the others comparatively insignificant, and at times one period may be entirely wanting. In some cases the paroxysm can be instantly arrested at will and at any stage of the attack, by employing firm pressure over the hyperæsthetic ovary. In others, however, such pressure either merely moderates the severity of the attack, or exercises no influence whatever upon its intensity or duration.

The attacks are either spontaneous—perhaps preceded by an aura—or they may be produced at will by the irritation of an epileptogenic zone which may be situated in any part of the body. In some cases the paroxysms are increased in frequency at the menstrual period.

The prognosis as regards recovery from the disease is exceedingly gloomy.

The most interesting portion of this subject, viz.: the peculiar modifications produced in the condition of the patient by metallo-therapeutics and other agencies of an analogous character, as well as the bearings of this latter topic on the treatment of hysteria in general, will be reserved for discussion in the next number.

#### THE YELLOW FEVER FUND.

This is progressing slowly, and in few quarters only, but still somewhat satisfactorily. The Medical Society of the County of New York, in which the movement originated, has collected about \$2,600. The Chamber of Commerce of the State of New York has put \$2,000 to the credit of the Society, when it is fully prepared to distribute its funds wisely; the Medical Society of South Carolina has forwarded \$443.55 for the same purpose, and the Kings County Medical Society has collected over \$500. Still this is a small sum to distribute among the families of over one hundred physicians who have died at their posts during the late epidemic. We hear that Cincinnati and Chicago may do something, and there were rumors



some time ago that the Rhode Island Medical Society was moving.

The public and the medical profession have subscribed enough, and there is no great propriety, or perhaps necessity, for asking them to subscribe more. But it is believed that almost every Mayor of the great cities, the Boards of Commerce and Trade, and many secular and religious associations, have cash balances on hand which have not been promised or given away. For these balances, or some part of them, the medical profession in every large city, State, and county should now ask, and urge the claims of the families of those professional brethren who have fallen in the discharge of their duty. Almost all of the little that was done to stay the terrible epidemic was accomplished under the guidance of the medical profession, and it should not now be forgotten. If the 60,000 regular physicians in the United States had concentrated their efforts upon aid to their toiling and suffering colleagues and their families, much might have been done, with little trouble or expense to any one of them. But all gave to general subscriptions and to their churches, and forgot their brethren. The telegraph operators, wiser in their generation, raised \$60,000, in small sums, for the benefit of their class, and paid large sums for doctors, nurses, medicines, comforts, clothing, etc., in addition to what they received from the Howard Associations and the general public.

The Mayor of the City of New York has promised to give something to the funds of the Medical Society of the County of New York. Cannot the officers of every State and county medical society follow the glorious example set them by the Medical Society of the County of New York, of the Kings County Medical Society, of the Medical Society of South Carolina, of the Ulster County Medical Society, and the District Medical Society of Union County, New Jersey? The way is easy, and the results may easily be made great.

#### SOCIETY DISCIPLINE AND MEDICAL CERTIFICATES.

THE first annual report of the Committee of Ethics of the Medical Society of the County, which was presented at a recent meeting of that body, states that during the previous eleven months one hundred and seventy-five charges of alleged breaches of the Code were made against members. This is a somewhat remarkable fact, but especially is this so when it is stated that all of the cases were amicably settled. The result is certainly very gratifying, and proves, as the RECORD long ago suggested, that when some proper and authoritative explanation of the Code should be made, discipline would be maintained without trouble. Our readers will remember to what an abuse the business of certificate-writing was carried, and the appeal that was made by us for the formation of a committee which should be competent to prevent the shameful parade in the daily papers of the names of the certificate-writers of several mineral-waters. If not as the direct result of such repeated entreaties, it

is certain that a committee on ethics was in due time formed and that the first cases examined were the certifiers to the mineral-waters in question. After much hard work on the part of the late President of the Medical Society of the County, Dr. J. C. Peters, and of the Committee of Ethics, but particularly by the Secretary of the Committee, Dr. O'Sullivan, the whole matter was brought to the point of a proper interpretation of the spirit of the Code regarding medical advertising. As a consequence the name of any respectable medical man no longer appears in the daily papers in the shape of a certificate to any mineral water, wine, or proprietary medicine. And when we are informed that despite the number of offences committed, every case was settled, without being brought to actual trial, we cannot too highly compliment the judgment of the committee which made such a result possible.

### Reviews and Notices of Books.

A PRACTICAL TREATISE ON THE MEDICAL AND SURGICAL USES OF ELECTRICITY. By GEO. M. BEARD, A.M., M.D., and A. D. ROCKWELL, A.M., M.D. Second edition, revised, enlarged, and mostly rewritten. With illustrations. New York: William Wood & Co., Great Jones Street. 1878.

The first edition of this book was favorably received by the profession, and placed among the standard works of reference in the department of electro-therapeutics. The second edition is considerably larger than the first. It has been made so by the addition of new matter, while the old has been thoroughly revised and brought up to the most advanced views concerning the physical and the physiological relations of electricity. The section on electro-physics has been enlarged, because the authors believe that very much of the failure which attends the use of electricity arises from ignorance of its physical relations. An entire chapter is devoted to the expounding of Ohm's law, which is regarded as the basis of all electrical measurement. This law bears the same relation to electricity as gravitation does to astronomy, and the theory of undulation to optics. It is that "the quantity of electricity passing through any point in a circuit varies directly as the electro-motive force, and inversely as the resistance." The first seven chapters of the book are given to electro-physics, and the subject is treated in a comprehensive and thorough manner.

Electro-physiology is studied in the twelve chapters which immediately follow. Here the laws of electricity and a description of the phenomena produced by the action of electricity in the body in health are given. Its action upon various parts of the body is recorded separately, as, for example, upon the skin, upon the brain and the spinal cord, upon the sympathetic and the pneumogastric, upon the motor and the sensory nerves, upon the voluntary and the involuntary muscles, etc.

In natural order the section on electro-therapeutics immediately follows, and contains an exhaustive *résumé* of what is known concerning medical and surgical electricity, with the subdivisions, electro-diagnosis and electro-therapeutical anatomy. In these chapters there is a concise description of apparatus employed, together with the method of use, in order to meet special indications. In this section we find extensive clinical records, embracing the histories,

of cases and the results obtained in the electrical treatment of almost every form of medical disease. It is doubtless the most complete collection of clinical observations in electro-therapeutics that can be readily reached by general practitioners, and is a fountain from which all medical men can draw with benefit. Every medical man, in these days, is at times directly interested in the subject of electro-therapeutics, and he can find the answer to many practical questions in this portion of the volume.

The electrical treatment of diseases commonly known as surgical has extensively engaged the attention of the profession, and a section therefore appears on electro-surgery. Here again is a collection of cases, and the results obtained by electrical treatment of most of the diseases which fall under the special care of the surgeon. The histories of the cases of benign and malignant tumors, and the remarks made upon them, are especially interesting because of the pretentious claims which at times have been made regarding the electrical treatment of this class of diseases. With reference to fibroids of the uterus, the authors state that they have never seen a "hard uterine fibroid tumor disappear under electrolysis." With reference to ovarian tumors, however, they believe that electrolysis is worthy of a better trial than it has yet received. The most favorable results have been obtained in recurring cysts and fibroids, and next in epithelioma, of which several have been treated successfully. The most unfavorable prognosis in the electrical treatment of tumors is in connection with scirrhus. The section as a whole is interesting. Indeed, the entire book is well arranged, is concise, comprehensive, and well adapted to the wants of the expert or of the general practitioner. The profession is indebted to the authors for the easy style in which they have given it the most complete summary upon the subject in our language. The book is printed on heavy paper and with large type, and presents a very creditable appearance.

**HANDBOOK OF MODERN CHEMISTRY, Inorganic and Organic, for the Use of Students.** By CHARLES MEYMOTT TIDY, M.B., F.R.S., Professor of Chemistry and of Medical Jurisprudence and Public Health at the London Hospital, etc. 8vo, pp. 780. London: J. & A. Churchill, New Burlington Street. 1878.

THE author very pertinently states in his preface that, as his work is a new one, some good excuse should be given for its appearance. His reasons for adding another to the many excellent treatises on the subject are eminently good, and commend his labors to the considerate attention of those for whom the work is intended. When fresh from the schools, he was appointed joint lecturer in chemistry with the late Dr. Letheby, at the London Hospital. "Consequently," says our author, "my lecture notes were prepared when familiar by practical experience with the wants of a student." This original plan, after years of elaboration, forms the basis of the present volume, and may justly be considered as thoroughly practical in character. There is, so to speak, a combination of the generalization of the lecture course with the accurate and painstaking detail of the text-book. While the outlining of the subjects is broad and comprehensive, the details are minute and methodical. In regard to the latter point, each compound is considered under the several heads of history, natural history, preparation, properties (sensible, physical, and chemical), uses in medicine and in the arts and manufactures; and lastly, tests. In the body of the work are a series of analytical tables showing the reactions of the commoner metals, and used as a basis for practi-

cal instruction in the laboratory. The reactions of organic bodies are given at the end of the several chapters devoted to their study. By way of compromise with the old system and the one growing into favor, the several equations are stated both in the molecular and the constitutional formulæ. The work, as a whole, gives evidences of careful painstaking, of accurate details, of broad generalization and special adaptation to medical chemistry, is well calculated for a text-book, and will meet the wants of the advanced and ambitious student. The book is well printed and very tastily bound.

**A TREATISE ON PHYSIOLOGY AND HYGIENE, for Educational Institutions and General Readers.** Fully illustrated. By JOSEPH C. HUTCHISON, M.D., Brooklyn, N. Y. New York: Clark & Maynard, 8 Barclay Street. 1878.

A new edition of this work gives us occasion to repeat what we said on the appearance of the original, viz.: that for purposes of common school instruction in physiology it is equal to any and surpassed by none.

## Reports of Societies.

### NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, Nov. 4, 1878.*

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

#### CEREBRAL SYMPTOMS FROM IMPACTED CERUMEN IN THE EAR.

DR. W. A. HAMMOND read a brief paper upon the above subject. It consisted essentially of the report of a number of cases in which marked cerebral symptoms were developed, such as hallucinations, temptations to suicide, tinnitus aurium, noises, voices, etc., and disappeared upon the removal of impacted cerumen from the ear.

Commenting upon the cases, the doctor gave his view with reference to the cause of the roaring produced by the introduction of the end of the finger into the ear—namely—that it was the circulation in the finger that was heard, the finger simply acting as a conductor of the sound.

DR. C. A. LEALE referred to two cases which illustrated the practical importance of the subject of the paper. One was that of a young man, who, on account of the gradual development of cerebral symptoms, was advised to discontinue his college course. He suffered considerably from pain in the ears, and in obtaining a history of the case it was learned that when two years old, fourteen years previously, he had been in the habit of putting beans into his ears. One bean had been removed from one ear, but another remained became surrounded by wax, pressed upon the tympanum, and excited all the cerebral symptoms recognized. The bean was removed, and the symptoms, to a very great extent, disappeared, but the prospects of the young man were ruined, for he had already given up his studies and engaged in some simple farm labor. The second was that of a lawyer fifty-four years of age, who had been recommended to give up his profession because it was almost impossible for him to hear the judge's remarks or the answers from a witness. On examining the ears nothing at first could be seen. The external meatus was small, and the canal could be illuminated only with considerable difficulty. Finally, a dark mass was discovered, which was readily removed with warm water injections, and it proved to be inspissated cerumen. With its removal all disagree-



able symptoms disappeared, and the gentleman renewed his professional labor.

Dr. GREY remarked, with reference to the hallucinations which had been attributed to impacted cerumen in the ear, that the question arose whether in any of the cases the hallucination would have been present had there not been a predisposition to insanity, either hereditary or from the previous existence of insanity from other causes. With an excitable condition of the nerve-centres, produced by previous insanity, it was easy to understand how any peripheral cause might develop the predisposition.

Dr. HAMMOND remarked that he was not able to state whether, in the cases reported, there was any predisposition to insanity. The curious part of some of the cases was, that the patients did not suffer from illusions, but rather from what might be called perversion of hallucination. They did have noises in the ears, and those noises were converted into real voices. He did not know of any example in the entire range of cerebral phenomena, in which a perverted sensation was converted into speech for instance, or anything which conveyed a distinct idea to the senses. The doctor then referred to the danger which attended the introduction of sea-water into the ears, and mentioned cases in which marked cerebral symptoms had been developed in consequence of such irritation.

Dr. WEBSTER regarded the statement made by Dr. Hammond with reference to the cause of the noise in the ear when the finger was introduced into the external auditory meatus, as entirely new and one which he could not accept. He believed that the noise was produced by pressure of the air against the tympanum, and not simply by introducing the finger into the ear. For, if a cork was introduced into the ear and pressure made, the noise would be produced the same as when the pressure was made by the finger.

Dr. KIERNAN remarked, with reference to hallucinations based upon perverted sensation, that a patient came under his observation who believed that he had a doctor in his abdomen who was constantly talking to him, but the speaking was not through the ears. With reference to inspissated cerumen, he had found many insane patients whose ears were filled with it, but the removal of the wax had not in any case been followed by removal of the hallucinations.

Dr. ROOSA remarked that after spending some years in the examination of cases, he had not been able to satisfy himself with reference to the etiology of inspissated cerumen. With reference to its existence he would simply say that he did not believe any person who had had inspissated cerumen more than once in his life had sound ears. If inspissated cerumen occurred more than once in the same person it was evidence that something of the hearing power had been lost, and that it would become still further impaired. With reference to hallucinations, Meyer, of Hamburg, had removed inspissated cerumen from the ears of a large number of insane persons, but in only two cases did the hallucinations disappear after the removal of the wax.

Dr. SESSELL had directed his attention to one case in which hallucinations were removed by the removal of impacted cerumen. With reference to the causation of noise in the ear when the finger was introduced into the auditory canal, he believed the chief cause was the pressure exerted by the finger, and that the arterial circulation had but little to do with it.

Dr. SHAW believed with Dr. Grey that mental symptoms would be produced by impacted cerumen only in those who had a predisposition to mental disease.

Dr. LEALE made special reference to the irritation produced by crystals from sea-water left in the ears after bathing, and the importance of carefully washing the ears out with warm water.

#### ABSCESS OF THE BRAIN.

Dr. J. C. SHAW presented specimens from a case of abscess of the brain.

The patient was a man thirty-seven years old, who had had suppurative inflammation of the ear for a number of years. Two weeks previous to his death he had a little extra pain in the ear, but it passed with slight notice. The pain becoming more severe about four days before his death, a consultation was held and an incision was made over the mastoid process for the relief of what was supposed to be inflammation affecting the mastoid cells. The man, however, became rapidly worse, and passed into a state of coma. The mastoid process was also trephined, but no relief was obtained. At autopsy, a small necrosed point was found in the dura mater just above the ear, with a sinus leading up to an abscess. There was extensive meningitis, which was regarded as the probable cause of death. The case was mentioned for the purpose of drawing attention to what was believed to be

#### A NEW FACT IN CONNECTION WITH MENINGITIS AND DISEASE OF THE MIDDLE EAR.

Dr. SHAW stated that he had occasion to make post-mortem examinations in five or six cases of meningitis associated with middle-ear trouble, and the question arose, how was the meningitis produced?

*In three cases he had been able to trace the pus along the Gasserian ganglion and to the fifth nerve.*

Dr. DE ROSSETT thought we should not forget, in this connection, the possible transference of trophic changes from one portion of the body to another.

The Society then adjourned.

## Correspondence.

### THE DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I notice an editorial in your journal of the 2d inst., under the above caption, and giving the theory of Dr. J. W. Swift, from an article in the *Boston Medical and Surgical Journal*. If this theory be correct, the product of conception preceding menstruation will be female, and that of conception succeeding menstruation will be male.

Dr. Napheys, in his excellent treatise, "The Transmission of Life," intended for popular reading, without giving any theory upon the subject, lays down a rule for the production of the sexes at will, which includes a statement exactly the reverse of the conclusion of Dr. Swift's theory. The discovery of this law of conception he ascribes to Prof. Thury, a French veterinary surgeon of the Academy of Geneva, who made a large number of experiments upon domesticated animals. A certified report to the Agricultural Society of Canton de Vaud, Switzerland, 1867, concludes thus: "In short, I have made in all twenty-nine experiments after the new method, and in every one I succeeded in the production of what I was looking for—male or female. I had not one single failure; consequently I do declare the law discovered by Prof. Thury to be real and accurate." Of course the opportunity for studying this law in the human subject is much more limited and uncertain, but Dr. Napheys

contends that all intelligent observation tends to confirm its existence. Of his illustrations on this point I give only one: "Physicians constantly observe that if labor comes a few days before 'full term,' or just at term, the child is more likely to be a female; but if labor is delayed beyond term, which is the same as saying if the conception took place quite a number of days after the cessation of menstruation, then it is more likely to be a boy."

Since I first read Dr. Napheys on this subject, I have made it a rule at every delivery—one hundred and ten cases—to inquire the length of time from the last menstruation, and, excluding one case where menstruation only ceased at the end of the fifth month of gestation, three premature deliveries and less than a dozen cases where the exact period was not remembered, in every single instance where gestation continued longer than what was considered full term the child was male, and when it did not, the child was female. The value I attach to these observations is only corroborative, because of the impossibility of fixing the exact time of fecundation and the variation in the time of gestation. During this time, however, I have had two cases in which, by reason of my intimate professional relation to the parties who were entirely reliable and of much more than average intelligence, I have been able to very nearly fix the period of conception, and in each case the event proved the correctness of the rule, as given by Dr. Napheys. In the first case the only intercourse during the menstrual month took place on the 9th of September; menstruation was due on the 14th, but did not appear, and on the 13th of the following June the lady was delivered after a thirty hours' labor of a male child. In the other case, intercourse was had twice during the menstrual month—the first, November 30th, thirty-six hours after the cessation of the flow, and the second the following day, December 1st. On the 31st of the following August I delivered this patient of a female child after a labor of ten hours' duration. JOSEPH A. MUDD, M.D.

CHAIN OF ROCKS, Mo., Nov. 11, 1878.

## THE GERM THEORY OF DISEASE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In order not to occupy your valuable space unnecessarily, permit me just to say, in reply to Dr. Neftel's letter in your last issue, in regard to experiments showing the occurrence of living organisms in blood, that I should be very sorry to claim, or even to receive, without protest, credit as an original investigator which was not justly my due. The fact is, that my observations were laid before the Medical Association of Central New York, Prof. E. M. Moore, President, at Rochester, June 16, 1868, reported in the *Rochester Democrat* for June 17th. and published in full in the *American Journal* for July, 1868, which appeared on the 8th or 9th of that month.

Scientific men have agreed that the independent observer who first publicly announces a new fact is entitled to the credit of its original discovery; and therefore, as I have by a curious coincidence antedated Dr. Neftel in reading a report of my experiments before a regularly organized medical society by three days, and in publishing it by six days, I trust the claim of priority put forth in my lecture before the Social Science Association will be acknowledged.

Besides, my demonstration of the truth in question directly concerned *human beings*, and was therefore, I submit, far more important to medical science.

Very respectfully yours, etc., Jos. G. RICHARDSON.

## New Instruments.

### ATOMIZING INSTRUMENTS.

NO. II.—DR. J. DE BEER'S ATOMIZING APPARATUS.

THE apparatus of Dr. De Beer, of Boston, is intended not only for atomizing purposes proper, but for vapor baths, for fomentations, and for use as a steam croup-kettle. It has connected with it a number of appliances, each of which is intended to fulfil a certain indication. The construction of the steam atomizer can be seen at a glance. The stand is circular, which is possibly a necessity in view of the different uses to which it is put. Otherwise, a broader base would give a firmer support to the apparatus. The support for the medicine-cup and face-shield is attached to the base by a screw, and is of course removable. This is of no special advantage when the apparatus is used merely as an atomizer. There is but one opening in the boiler which is used for filling with water, and for the escape of steam. It appears to us that a separate opening for filling and for the safety-valve would be more convenient.

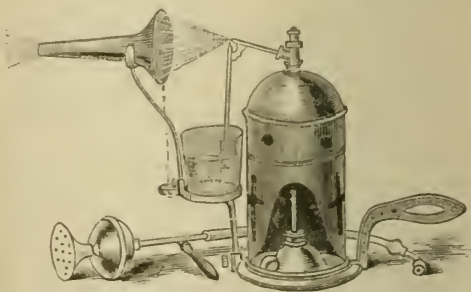


FIG. 1.

As an atomizing apparatus, it is thoroughly efficient, throwing the spray forcibly and uniformly. The face-shield is attached to the upright rod by means of a spring catch, which is a very convenient arrangement, as is also the movable handle for the stand. A notable improvement would be a non-conducting handle for the boiler itself.

The apparatus seems, however, to be specially adapted for cases of croup, having attached to it a so-called croup-kettle, in connection with which can be used different medicated vapors.

The steam of the boiler is made to enter a cup P, over which is an inverted bottle M (Fig. 2), from the neck

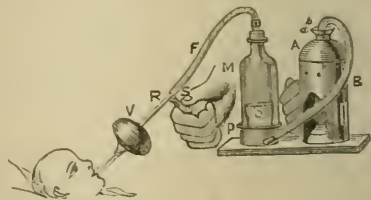


FIG. 2.

of which passes a tube F, connected with a hand apparatus V, for condensing steam, and directing the spray against the face.

The vapor is medicated by material contained in the glass chamber O. By attaching the rubber tube B, directly to the boiler A, steam can be applied to any part of the body for the purposes of local fomentation,



and by inserting the free end of tube in the cup in which medical materials are contained, a medicated vapor-bath can be administered.

Vapor can be applied locally to the genito-urinary organs by a very simple procedure. The box in which the apparatus is packed has a false bottom, and when the box is turned upside down an opening is left, over which the patient may sit. The box is elevated by means of iron legs, which are fastened in the corners.

The apparatus is also supplied with a kettle, which for the purposes of heating water takes the place of the boiler.

As a whole, the apparatus is ingenious, efficient, compact, and calculated to serve a great variety of useful purposes.

## SOME NEW AURAL INSTRUMENTS.

By SAMUEL SEXTON, M.D.,

NEW YORK.

The myringotome in use at the present time is sometimes found to be unsatisfactory, it being difficult to make with it a free opening; for, as soon as its point is made to prick the membrana tympani, the patient is unable to resist the desire to remove his head quickly away from the instrument. There is another objection to the needle or lance-shaped myringotome referred to: it may, after perforating the membrane, inflict a painful or injurious wound upon the posterior wall of the tympanum.

With a view to overcome these disadvantages I have devised an instrument, two sizes of which are shown in the cut Fig. 1 (A and B), full size.

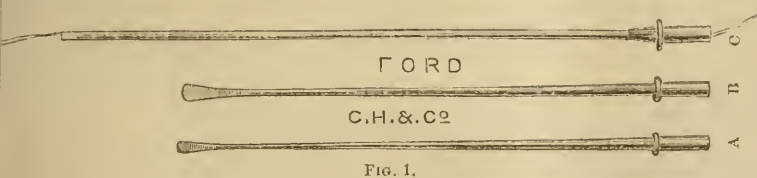


FIG. 1.

This myringotome, which is made of steel, with spring finish, I have used in a great many cases during the past year, and the favorable results of this experience justify me, I think, in offering it to the profession. The instrument does its work by being thrust gently, with a steady hand, against the membrane. The cutting edge is slightly rounded at the corners.

The surgeon having decided upon the size of the perforation required, an instrument is selected with a cutting edge to correspond. I have so far only required two sizes of this instrument, as shown in the cut. The larger one is two, and the smaller one is one and a half millimetres in width.

I have had the instrument made with the blue finish, so that its position can be more readily seen as it approaches the membrane through the polished speculum. From experience in using most ear instruments, I am convinced that a handle fixed at an angle of 110° answers the best purpose (an example of which is seen in Fig. 2).

In performing the operation of myringotomy with this instrument, the surgeon passes the cutting edge up to the membrane as near as possible without touching it, and then presses it quickly against and through it. The slight "pop," which resembles the sound attending the bursting of a light bladder-like substance containing air, assures the operator that the membrane

has been perforated. It must be borne in mind, however, that the diseased membrane varies greatly in thickness and toughness, and consequently the pressure to be used varies in almost every instance. The instrument makes an opening of the exact size required, thus assuring precision in the operation.

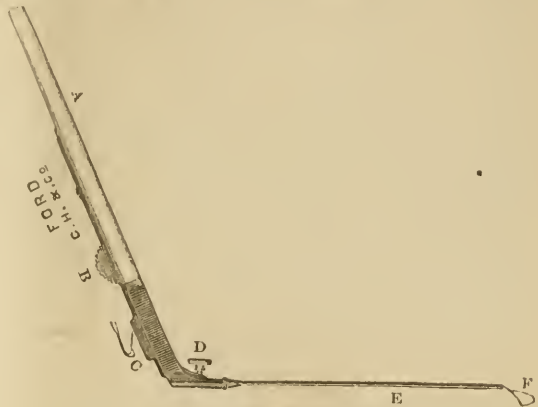


FIG. 2.—Size about one-half.

Figure 2 represents a new aural snare. The handle, A, of this instrument answers for the attachment of all the aural instruments which it is desirable to use in this way; it is made of ivory, and is well balanced when held in the hand. D is the set screw for making fast any instrument used.

When arranged for use as a snare, E is the canula, and F the wire snare. At C the wire is caught and held by a simple mechanism. B is a slightly elevated appliance which is milled to prevent the thumb slipping off when it is drawn down, and with it the wire of which the snare is formed. When used, the snare is held in the right hand, the thumb resting upon B. The snare F is to be passed over the polypoid growth the same as when using any of the snares which have heretofore been in use. The loop is now tightened over the growth to the extent required, by pulling down B with the thumb. It is believed that this instrument

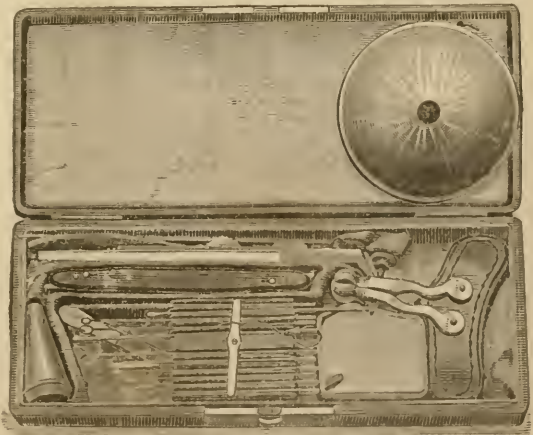


FIG. 3.—Size reduced.

will be acceptable to those who wish to carry a snare with other instruments in a small compass. The con-

trivance for holding the wire prevents its slipping during an operation, which sometimes is a great annoyance to those using the instruments as at present constructed.

Figure 3 represents a new aural pocket-case containing the above-mentioned instruments, together with others needful to have in most instances where a pocket case is used. It contains the general handle; aural snare; bent forceps of delicate pattern; two bistouries (in one handle) for mastoid or other abscesses; small, sharp-pointed knife; small, round pointed knife (both for use in the meatus externus); curettes; probes; myringotomes; head band and reflecting mirror (the mirror can be held in the general handle if not worn on the forehead); set of Wilde's specula, four sizes; vulcanite cotton-wool carrier, etc.

The case is 17 centimetres long, 7 centimetres wide, and 2 centimetres thick. It can be carried in a waist-coat pocket without inconvenience.

These instruments have been made by Mr. FORD, of Caswell, Hazard & Co., New York.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 10 to November 16, 1878.*

TILTON, H. R., Major and Surgeon. Leave of absence extended two months. S. O. 245, A. G. O., Nov. 12, 1878.

KING, J. H. T., Captain and Asst.-Surgeon. Assigned to duty at Fort McIntosh, Texas. S. O. 238, Dept. of Texas, Nov. 8, 1878.

FINLEY, J. A., 1st Lieut. and Asst.-Surgeon. Relieved from duty at Fort Elliott, Texas, and assigned to duty at Fort Wallace, Kansas. S. O. 203, Dept. of the Missouri, Nov. 6, 1878.

### Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 16, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Nov. 9, 1878.  | 1             | 14             | 72             | 1                          | 1        | 45          | 0          | 0             |
| Nov. 16, 1878. | 0             | 23             | 107            | 2                          | 2        | 41          | 0          | 0             |

OFFICE SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE.  
WASHINGTON, D. C., Nov. 16, 1878.

NATIONAL QUARANTINE REPORT. — Abstract of sanitary reports received during the past week under the National Quarantine Act:

New Orleans, La. — For the week ending yesterday evening there were 11 deaths from yellow fever. Impossible to procure accurate number of new cases. No new cases or deaths for the past twenty-four hours.

Clinton, La. — The first case of yellow fever occurred Sept. 7th. Among the white population there have been 40 cases and 15 deaths; among the colored people, 56 cases and no deaths.

Morgan City, La. — 12 new cases of yellow fever and one death during the last week.

Delphi, La. — The first case of yellow fever occurred in August. Total cases to date, 100; deaths, 50. Both physicians died early.

Mobile, Ala. — There were 21 new cases of yellow fever during the past week and 8 deaths.

Vicksburg, Miss. — There were 4 new cases of yellow fever and 3 deaths during the past week. For the same period there were 8 cases and 2 deaths in the surrounding country.

Pass Christian, Miss. — Three new cases of yellow fever during the last week; no deaths. The last case occurred on the 10th, and the last death the 3d inst.

Chattanooga, Tenn. — Two new cases of yellow fever and 2 deaths during the past week. Last case and last death occurred on the 10th inst. — both colored.

Osgood, Miss. — The first case of yellow fever occurred July 31st. Total number of cases to date, 227; total deaths, 30.

Moscow, Miss. — Population, 185. First case of yellow fever Aug. 31st; last case Nov. 3d. Total cases, 71; deaths, 35.

McComb, Miss. — First case of yellow fever Sept. 28th. Total deaths to date 21.

Lake, Miss. — To Nov. 1st there had been 300 cases of yellow fever and 86 deaths.

Canton, Miss. — Total cases of yellow fever to Nov. 1st, 919; deaths, 176.

Port Gibson, Miss. — To Nov. 5th there were 655 cases of yellow fever and 116 deaths.

Havana, Cuba. — 16 deaths from yellow fever and none from small-pox for the week ending Nov. 9th.

Baltimore, Md. — For the week ending Nov. 9th the average annual rate of mortality in 1,000 of the population, based on the weekly mortality, was 14.3. The deaths include 6 from diphtheria, 5 from enteric, and 3 from scarlet fever.

Boston, Mass. — The average annual rate of mortality for the week ending Nov. 9th was 17.5 per 1,000. There were 16 cases of scarlet fever and 3 deaths; 16 cases of diphtheria and 8 deaths.

Brooklyn, N. Y. — For the two weeks ending Nov. 9th there were 5 cases of enteric fever and 2 deaths; 41 cases of scarlet fever and 2 deaths; 81 cases of diphtheria and 36 deaths.

Burlington, Vt. — For the month ending Oct. 25th the average annual rate of mortality was 7.5. There were no deaths from preventable diseases.

Charleston, S. C. — For the week ending Nov. 9th there were 25 deaths from all causes, including 2 from enteric fever and 1 from diphtheria.

Chicago, Ill. — Average annual death-rate 14.7 for the week ending Nov. 2d. There were 13 deaths from diphtheria, 4 from scarlet fever, and 7 from enteric fever.

Cleveland, Ohio. — In the week ending Nov. 9th there were 45 cases of diphtheria and 20 deaths: 2 deaths from enteric fever, and 4 cases of scarlet fever — no deaths.

Lansing, Mich. — The deaths for October show an annual death-rate of 7 in 1,000 of population; no deaths from preventable diseases.

New Haven, Conn. — For the week ending Oct. 9th there were 22 deaths from all causes, including 2 from diphtheria.

New York City. — The average annual mortality rate for the week ending Oct. 26th, was 21.4 per 1,000. The deaths include 11 from scarlet fever, and 18 from diphtheria.

Philadelphia, Pa. — For week ending Nov. 9th, the rate of mortality was 16.3. The deaths include 10



from diphtheria, 7 from scarlet, and 9 from enteric fevers.

*Richmond, Va.*—The average annual rate of mortality was 15.79 for week ending Nov. 9th. The deaths include 2 from scarlet fever, and 1 from diphtheria.

*Rochester, N. Y.*—For the month of October, the average annual rate of mortality was 12.16 per 1,000. There were 2 deaths from diphtheria, and 1 from scarlet fever.

*Toledo, Ohio.*—During the month of October there were 3 deaths from diphtheria, and 3 from scarlet fever. The average annual death-rate was 13.68 for all deaths.

*Milwaukee, Wis.*—For the three weeks ending Nov. 9th, there were 61 cases of diphtheria and 14 deaths, 14 cases of scarlet fever, and no deaths; there were 3 deaths from typhus fever, and 3 from enteric fever.

*Rio de Janeiro, South America.*—For the two weeks ending Oct. 12th, there were 227 deaths from small-pox, 3 from typhus fever, 10 from enteric fever, 4 from yellow fever, and 18 reported from "pernicious fever." Deaths from all causes show an average death-rate of 43.5.

*Great Britain.*—In twenty large cities and towns of England, having a population of seven millions, the deaths for the week ending Oct. 26th show an annual rate of mortality of 21.6 per 1,000 of the population. The deaths include 5 from small-pox, 187 from scarlet fever, and 71 from other fevers. In *Dublin*, for the same week, the mortality rate was 23.5. There were 5 deaths from small-pox, and 8 from scarlet fever. In *Belfast*, for the week ending Oct. 31st, there were 9 cases of scarlet fever and one death, 3 cases of enteric fever, but no deaths.

*Stockholm, Sweden.*—For the week ending Oct. 12th, the total mortality shows an average annual rate of 17.3. Enteritis and diarrhoea caused one-fifth of deaths.

*Christiania, Norway.*—For the week ending Oct. 19th, there were 3 deaths from diphtheria, and 1 from scarlet fever. The average annual rate of mortality was 13.8 in 1,000 of the population.

*German Empire.*—During the week ending Oct. 19th there were 5,475 births, and 3,480 deaths in 149 cities and towns of 15,000 people and upwards, having an aggregate population of 7,439,708. The average annual death-rate per 1,000 of the population was 24.3; the lowest being 11.5, at Potsdam; the highest 37.9, at Augsburg. In *Berlin* the death-rate was 27. The total deaths include 113 from scarlet fever, 169 from diphtheria and croup, and 70 from enteric fever. There were no deaths from small-pox or typhus fever.

The "Rinderpest" is reported to be decreasing in some of the provinces of Turkey.

*China.*—Advices from *Shanghai* to Oct. 1st report only sporadic cases of Asiatic cholera at that port. Cholera first appeared in China in 1820, having been brought by sea from Siam, and has proved very malignant at times, although at no time ravaging an extensive region of country. Sporadic cases occur at *Shanghai* in the summer and autumn of almost every year. All persons visiting China and Japan are advised to be re-vaccinated before going. The universal practice of inoculation with small-pox virus, which obtains in those countries, accounts for the frequent deaths among foreigners from small-pox. Inoculation does not always protect from subsequent attack. *Diphtheria* is not common in *Shanghai*. It is restricted almost wholly to higher latitudes of the Empire. *Yellow fever* is unknown in Eastern China.

Typhus fever often prevails, but generally over restricted areas. *Leprosy* prevails to some extent in the province of Canton, which furnishes nearly all the Chinese emigrants to the United States. The disease was introduced into the Sandwich Islands from China.

*Singapore.*—The island and part of Singapore are reported free from all epidemic or infectious diseases—advices to Sept. 27th.—Jno. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

THE THIRTY-SECOND ANNIVERSARY DISCOURSE BEFORE THE NEW YORK ACADEMY OF MEDICINE will be delivered by Prof. W. H. Thomson in the Hall of the Academy, 12 West 31st Street, on Wednesday evening, Nov. 27, 1878, at 8 o'clock. The medical profession are invited to attend.

ST. FRANCIS' HOSPITAL, NEW YORK.—Dr. George F. Shady has been appointed Attending Surgeon to St. Francis' Hospital, New York.

PROF. MOSES GUNN, of Chicago, who has been suffering from a poisoned wound, received during operation, is now rapidly improving.

NEW YORK ACADEMY OF MEDICINE.—The Library of this association now numbers seven thousand volumes, while nearly fifty of the leading medical journals of this and other countries are laid upon the tables for the free use of the medical profession and the public. The Library is open from 10 A.M. to 5 P.M., Sundays excepted.

STATE WOMAN'S HOSPITAL.—Dr. Fordyce Barker has resigned his position as one of the surgeons to the New York State Woman's Hospital. Pending the election to fill the vacancy thus created, the staff was enlarged by two additional members. The following were then elected surgeons to the institution: Drs. C. C. Lee, James B. Hunter, and E. Noeggerath.

A CASE OF OVARIOTOMY—RECOVERY.—Dr. W. E. Rowe, of Waterville, Iowa, sends the following account:—"Sometime in March, 1878, Miss B., German, unmarried, aged 23, noticed that her abdomen began to enlarge, and that her previous good health began to fail. Several physicians were consulted in regard to the case, and it was pronounced to be either an ovarian tumor or an extra-uterine pregnancy. Nothing was done, except some medicine given to improve digestion and to regulate the bowels. Her abdomen continued to enlarge, and Dr. T. H. Barnes was consulted. After a thorough and careful examination he unequivocally pronounced it to be an ovarian tumor, and its immediate removal by ovariectomy was recommended, as the tumor was already causing considerable gastric derangement, and also, by pressure on the diaphragm, seriously interfering with respiration. The diagnosis being established beyond a doubt, and the operation decided upon, on Wednesday, September 18, 1878, Dr. Barnes, assisted by Drs. Brown, Earle, Behle, Rogers, and Rowe, removed a large, solid, multilocular ovarian tumor, weighing twelve pounds. Operation.—The patient being thoroughly under the influence of chloroform, an incision was made in the linea alba, extending from the umbilicus to the pubis, and the tumor exposed. All hemorrhage was stopped by searing the wound with the galvano-caustic battery. On opening the cavity of the peritoneum a quantity of water escaped, showing the presence of ascites. The tumor being fully exposed, cysts were looked for, and a small one found, which was tapped, and about 5 x. of clear fluid drawn with the expirator. Adhesions were next

looked for, and a few found, but they were easily broken up by the hand. On trying to turn the tumor out of the cavity it was found impossible to do so, and the incision had to be lengthened, making it about seven inches in length. The tumor was now rolled out and found to be attached to a very short and broad pedicle, consisting of the broad ligament and Fallopian tube. A Wells' clamp was applied, and the tumor removed with the knife. One small artery was ligated in the stump of the pedicle. The wound was sponged out with a carbolic solution, and then closed with five carbolized silk sutures. The sutures included the peritoneum. A cloth smeared with simple cerate was laid over the wound and a flannel bandage applied. The patient bore the operation well, and rallied nicely. The subsequent treatment consisted in keeping the temperature of the room at about 60° F., and the usual antiseptic and opiate treatment to guard against peritonitis.

"The above case is interesting, owing to the very rapid growth of the tumor, and the nicety of diagnosis required to discriminate between an extra-uterine pregnancy or ovarian tumor. There was no history of any previous ovarian disease. She had menstruated regularly since puberty. The entire left ovary was involved. It was feared that the rapid growth of the tumor was owing to carcinoma, but nothing of the kind presented itself. The failure of the battery to work properly prevented its use on the pedicle. This adds another to the list of successful cases of ovariectomy."

**TO PREVENT SUICIDE.**—The International Medical-Legal Congress opened August 12th, in the Palace of the Tuileries, Paris. In relation to the prevention of suicides, M. Jeannel proposed, as the only means, in his opinion, to diminish their number, was to give the bodies of suicides to the anatomical amphitheatres.

**ERGOT IN CARDIAC DISEASES.**—Massini recommends ergot in simple hypertrophy and cardiac degeneration, when digitalis administered for some time produced no effect. In valvular troubles ergot appears to have but little effect. He prefers the preparation obtained by maceration.

**A SELF-GENERATING DISINFECTANT.**—Dr. John Day, of Geelong, Australia, recommends the following: One part rectified oil of turpentine, seven parts benzine; add a few drops oil of verbenia. Each of these agents has the power of absorbing oxygen from the air and converting it into peroxide of hydrogen, a highly active oxidizing agent, very similar in nature to ozone. This preparation is cheap, lasting, easy of application, and does not injure fabrics of any kind. It may be applied with a brush or sponge, or by sprinkling or pouring over articles. It is very efficient, besides the odor is not disagreeable.

**THYMOL** dressing of wounds is considered vastly inferior to the carbolic dressing of Lister. Dr. Robert F. Weir (*Ohio Med. and Surg. Jour.*, June, 1878) has tested it in the New York and Roosevelt Hospitals, and has found it inferior in every way. He says that at the recent meeting of the Surgical Congress of Berlin, Drs. Custer, of Berlin, Olshausen, of Halle, Schede and Langenbeck, of Berlin, spoke against it. He intimates that *carcol* (from carraway seed) may prove the coming antiseptic.

**HIGH TEMPERATURE BEFORE AND AFTER DEATH FROM YELLOW FEVER.**—Dr. C. S. Mercier reports (*New Orleans Medical and Surgical Journal*, Sept., 1878) the case of a German woman who was admitted

to the Charity Hospital with well-marked symptoms of yellow fever, and who died a few hours afterward. Two hours before death the temperature in the axilla was 111° Fahr. At the time of the autopsy, five hours after death, a thermometer placed in the axilla indicated 105.5, and another in the hypogastric region, after an incision had been made through the abdominal walls, recorded 109° F.

**A LARGE DOSE OF CHLORAL.**—Dr. Henry Tizard details (*British Medical Journal*, Sept. 21st) a case of recovery after the injection of one hundred and sixty grains of chloral with suicidal intent.

**RECTAL ABSCESS.**—Verneuil recommends, in opening abscesses around the verge of the anus, that the operation for *fistula in ano* should be performed at the same time.

**THE EFFECTS OF THE USE OF QUININE ON HEARING.**—The belief is general among the laity that the prolonged use of quinine affects the hearing. Medical men have generally disbelieved this, and attributed the notion to prejudice. Dr. Roosa, of New York, has been examining the evidence, such as he can procure, and is inclined to believe that in some cases there is a permanent nervous affection of the ear produced, which justifies the opinion of the laity.

**ALCOHOLIC DRINKS IN ENGLAND.**—In spite of the commercial distress, that prevails throughout England and Scotland, it has been ascertained that the consumption of spirituous drinks in those two countries last year exceeded that of the preceding year, when it amounted to 600,000 gallons.

**A REMEDY FOR OBESITY.**—Prof. Dr. Tarnier has called attention (in *Am. de la Soci. de Méd. de Gand*, No. iv., 1877) to the success of a milk diet in cases of obesity. He lays down the following regimen: 1st day, three-quarters of usual food and one litre of milk; 2d day, half usual diet and two litres of milk; 3d day, one-quarter usual diet and three litres of milk; thereafter, four litres of milk daily and nothing else. Once in a while allow a little solid food to prevent disgust for milk. If diarrhœa occur, suspend milk diet for a while, then resume. Success always attends, entailing no dangers.

**INSOMNIA.**—In cases of *insomnia* from anxiety, melancholia, or a low state of nutrition, camphor will act favorably, when chloral, morphia, potassium bromide, etc., fail. One and a half to two or three grains may be subcutaneously injected after dissolving in almond oil.

**ANTI-TOOTHACHE.**—The following is far superior to simple creosote, acid carbonate, oil of cloves, morphia, chloroform, etc.:

- B. Chloroformi pur.,  
Tr. aconite rad. (Fleming) . . . . . ʒ iij.  
Tr. capsici . . . . . ʒ i.  
Tr. pyrethri,  
Ol. caryoph. . . . . ʒ i.  
Gum. camph. . . . . ʒ ss.  
M. Apply on cotton-wool.

**LADIES' HEELS.**—Dr. Kraussold has recorded two cases of severe pain in the knee-joint and leg, with impossibility of complete extension at the knee-joint, and contraction of the muscles on either side of the popliteal space, which were due to the new-fashioned heels now worn on ladies' shoes.

**PROF. ROKITANSKY**, recently deceased, performed 30,000 autopsies.



## Original Lectures.

### LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

By JOS. C. HUTCHISON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON-IN-CHIEF TO THE BROOKLYN ORTHOPÆDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

#### LECTURE I.

INTRODUCTORY AND HISTORICAL REMARKS—REUNION OF TENDONS AFTER SUBCUTANEOUS TENOTOMY, AND RULES FOR THE OPERATION—DIFFERENCE IN THE NORMAL ANATOMY OF THE INFANT AND THE ADULT FOOT—VARIETIES OF CLUB-FOOT—CONGENITAL AND NON-CONGENITAL TALIPES—FREQUENCY—CAUSES—COMPLICATIONS—PROGNOSIS—TALIPES VARUS (CONGENITAL)—DEGREES OF THE DEFORMITY—TREATMENT—AGE AT WHICH IT SHOULD BE COMMENCED WITHOUT AND WITH TENOTOMY—NON-CONGENITAL TALIPES VARUS—PROGNOSIS—TREATMENT.

GENTLEMEN:—In a brief course of lectures, I desire to call your attention to the surgical treatment of that class of deformities or malformations which is commonly expressed by the term club-foot. In doing so, I shall open to you a much neglected, but (humanely speaking) one of the most attractive chapters of modern surgery. I say "modern surgery" purposely, for it is important for you, on many accounts, to know that this department of orthopædic surgery, as well as some others which will be mentioned by other instructors, is much younger than the present century. Our older surgeons readily recollect the modest beginnings of their practice of the division of tendons, and even those who do not consider themselves old well remember to have seen deformed persons, who, through a long life, have borne without hope the miseries attendant on unrelieved club-foot, which in earlier years might easily have been cured. It was not until 1816 that the eminent surgeon, Delpech, began this procedure with hesitation and with indifferent success. In this connection I will ask you to fix in your memory, as one of the pioneers of your art, the name of this surgeon of Montpellier, who, if he had lived out the ordinary space of life, would have left a name not easily forgotten for originality of thought and ingenuity of execution. As it was, he left a book, "*De l'Orthomorphie*," printed in 1828, which contains statements of principles and rules for practice that are quoted by every systematic writer on this subject down to the present day. His four rules for subcutaneous tenotomy, somewhat modified by the progress since made, are followed by the orthopædic surgeons of to-day. It is true that before Delpech tendons had occasionally been divided by veterinary surgeons, as well as for the relief of club-foot, but not subcutaneously, so that it was reserved for that surgeon to give to the operation a recognized and legitimate place in surgery. In 1831, Stromeyer of Hanover improved upon Delpech by the use of a small bistoury, thus avoiding the danger of a large external wound. Stromeyer's cases too were almost uniformly successful; so that, with the publication of his experience in 1834, tenotomy may be said to have gained footing on solid ground. Tenotomy therefore, you will observe, has not quite completed its

first half century. After Stromeyer, the operation was rapidly adopted by the best surgeons of Europe and America; by some improved and simplified, principally (1) by the adoption of the rules that the section should be subcutaneous, that is to say, the surgeon avoids a counter-opening on the further side of the subjected tendon, while making as small an incision as possible at the point of entry of the narrow-bladed knife, and (2) by making the incision in a valvular form, *i.e.*, the integument is slid somewhat to one side as the knife is entered, so that, when the knife is withdrawn, the wound through the skin does not exactly correspond with that in the deeper parts. This step, it is believed, tends to prevent the admission of air into the inner wound, thereby avoiding some of the chances of inflammation and suppuration which may follow the presence of air in the deeper tissues, and interfere with the proper union of the tendon. I will not now demonstrate the manner in which the operation of tenotomy is ordinarily performed, because I shall have occasion to do so at a future time.

In this country, the tendo Achillis was first divided according to the Stromeyerian method by the late Dr. James H. Dickson, in 1835. Thus you may learn how slow has been the recognition of this valuable operation, which already has been performed many thousands of times. It is a simple operation, easy of performance, comparatively free from danger, from blood-loss, or any disagreeable after-effects. It causes but little pain, and generally brings about a cure after a short period of confinement.

#### RULES FOR THE OPERATION OF SUBCUTANEOUS TENOTOMY.

Let us now see what takes place when a tendon is thus cut, and how tendons reunite. But first I will describe the manner in which the operation of tenotomy is ordinarily performed. The limb should be so held that the tendon to be divided is made to stand out prominently; the skin is slid to one side, and the tenotome is carried beneath the tendon flatwise; the cutting edge is now turned towards the tendon which is to be divided transversely towards the skin, by alternately raising and depressing the handle, without puncturing the skin on the opposite side. After a tendon has been divided, pressure should be made along the track of the instrument as it is withdrawn, in order to exclude the air and prevent extravasation of blood into the subcutaneous tissues. The wound should be immediately closed by a compress of lint, retained in position by a strip of adhesive plaster and a "figure-of-eight" bandage around the foot and ankle. The foot should then be put into a plaster-of-Paris or felt splint, which has been accurately moulded to it before the operation, in the manner I shall hereafter show you. It is thus kept at rest in the deformed position until the puncture has healed, which usually requires about four days. To straighten the foot immediately after the operation would tear open the wound, and most likely bring on suppuration. On the other hand, if we wait too long, we lose all the advantages to be expected from tenotomy.

The tenotomy knife should have the shape of the ordinary blunt tenotome, the extremity being sharp instead of blunt. With this instrument there is less danger of making a second puncture than with the more pointed instrument.

#### REUNION OF TENDONS AFTER SUBCUTANEOUS TENOTOMY.

When the tenotomy is properly performed, the sheath of the tendon commonly remains intact, except

at the point at which the knife enters. The tendon itself is, however, completely cut across, and the divided structure retracts; the one end separates from the other. The amount of retraction will, of course, vary considerably according to the size and power of the muscle, the degree of deformity to be overcome, or the amount of forcible motion that may then or later be made at the joint. Taking the tendo Achillis for an example, this retraction is ordinarily from one-half an inch to one inch in children, one to two inches in adults. The tendon is a very slightly vascular tissue, hence there is but little, if any, effusion of blood within the sheath after tenotomy. It is the exception rather than the rule for even the largest tendons to bleed appreciably. Mr. Broadhurst, who has made numerous experiments for the purpose of studying the progress of reunion, says that on the second day "a small and unimportant film of blood was found in the sheath, and a small quantity of lymph was attached to the divided end." Billroth is nearly the only writer who makes mention of hemorrhage, and he merely says it *may* be sufficiently abundant to hinder, and even prevent, the process of reunion. The space between the ends is filled by the effusion of a grayish lymph. This exudes from both ends, but more abundantly from the upper end. On the fourth day the two ends are joined by a soft bond of union by means of this lymph. On the sixth day it becomes a well-defined, firm, and ruddy cord, and has assumed a distinctly fibrous character. This is the beginning of a process of repair, which, in the end, forms a structure that is histologically identical with that of the original tendon (Paget). As the repair advances the tissue increases in quantity; it hardens and matures, loses its plastic and cellular quality, and takes on a new and more fibrous character, and after a few months it assumes almost exactly the appearance of the old tendon. The microscope is then unable to discriminate between the old and the new. The gross appearances are very nearly the same as to outline, surface, size, and strength; only in color is a difference recognizable. The new tendon is more grayish in hue, and has a less pearly lustre than the original tendon.

#### RATE OF EXTENSION AFTER TENOTOMY.

Although this new material is soft at first, it rapidly strengthens, so that in from thirteen to twenty days it becomes sufficiently strong to sustain the weight of many pounds. It is susceptible of extension to any degree required for the relief of deformity, even for weeks. On this account it is well not to undertake too rapidly the removal of extreme deformities; but it is wiser in certain cases to continue a gradual extension during a period of from two to three weeks, or even longer, in paralytic cases, and in persons of feeble health. It should be remembered, and I desire to emphasize this point, that force may be prematurely applied in such a way as to ruin the result by causing the ends of the tendons to be drawn so far apart as to render reunion impossible. This was done when the operation was less understood. In such a case a deformity, the opposite to that already existing, is produced. It is not sufficient simply to remove the malposition caused by a shortened tendon or muscle. The restoration of function must be held in view, and, of course, all power to do this is lost if an important muscle is permanently severed from its point of insertion. Rest after tenotomy should be allowed the limb for a period of from four to six days, rather longer in adults than in infants. Extension of the newly forming band or bands of connecting tissue should then begin gradually. Immediate extension has been rec-

ommended, but, for reasons already given, gradual extension, covering a period of two or three weeks, appears to offer the best prospects of success. The deposit of new material will thus be held under control, and the new tendon will not be put unduly on the stretch. Mr. William Adams advises that in the atrophied limbs of paralytic patients the efforts at restoration to a normal position be continued, little by little, for not less than five or six weeks.

#### DIFFERENCE IN THE NORMAL ANATOMY OF THE INFANT AND THE ADULT FOOT.

In order that we may understand the physiology and pathological anatomy of the child's foot, it is important for us to study its normal anatomy, which differs materially from that of the adult. It is all the more important to direct your attention to this matter, because the text books, as well as the lectures on orthopaedic surgery hitherto published, are silent upon this subject. The plates and the descriptions of the foot which they contain relate only to the adult foot. With the exception of the pelvis and the pelvic organs at puberty, there is no part of the body that undergoes greater anatomical and physiological changes than the human foot from birth until the eighth year. A comparison of the foot of the child with that of the adult is therefore important.

The foot comprises all that part of the lower extremity situated below the tibio-tarsal articulation. The orthopaedic surgeon is principally interested in the superior and inferior surfaces, as a deviation from their normal outline marks the degree and direction of the deformity. The adult foot is in the form of an arch, convex above and concave below. The superior surface at its highest point, formed by the astragalus, receives the whole weight of the body transmitted to it through the tibia and ankle-joint. The inferior surface transmits the weight to the ground. The convex form of the superior surface gives great freedom to the movements of the leg, and, in connection with the marked flexibility of the organ, admits of great changes in the direction of its long axis, and in the position and direction of the centre of gravity; while the concave form of the inferior surface and the number of bones that enter into its formation give it flexibility and strength, allowing it to accommodate itself to all the irregularities of surface with which it is brought in contact. The inferior surface is also marked by a double arch; the first and most important extends from the heel to the ball of the great and little toes; the second, extending laterally, is formed by the scaphoid, cuboid, and cuneiform bones, and reaches to the tarsal extremities of the metatarsal bones (Fig. 1.). The points of pressure when the foot is applied to the ground are the posterior inferior extremities of the os calcis and the anterior inferior extremities of the metatarsal bones of the great and little toes.

In the infant the conditions are very different. The inferior surface of the foot is flat, or nearly so, the arch hardly perceptible (Fig. 2). The convexity of the superior surface is scarcely marked, for the tissues are soft and abundant and adapted to bring to it the greatest amount of nutrition. At birth, and for some time subsequently, the feet are adducted and turned inward, so that their inferior surfaces lock towards each other, and the inner ankle is scarcely observable. This condition continues during the movements of flexion and extension, and if we attempt to place the child on its feet, the outer border first touches the ground. This is not a deformity; it is a normal condition that changes with development.



The feet are now unfit to support the weight of the body, as they are not yet sufficiently developed for that purpose. The bones that are destined to become solid and firm are rudimentary, cartilaginous; few of them have more than a single point of ossification, and they are connected merely by soft bands which will ultimately become powerful and elastic ligaments. This is not the foot that is described in the text-books, the foot that is ordinarily capable of sup-

porting a body weighing one or two hundred pounds, and under extraordinary circumstances, as in leaping and jumping from heights, sustaining without inconvenience a pressure equal to many hundreds of pounds. Guéniot has pointed out the following method of determining whether the inversion of the foot which exists at birth is a normal or pathological condition. Hold the child under the arms, and turn its back to an open fire, it immediately flexes the thigh on the trunk and the legs upon the thighs, and turns the feet outward, the sole towards the heat. This last movement cannot be accomplished if the feet are deformed.

under surface is almost flat, and the height, particularly on the inner border, is extremely low as compared with the other dimensions of the bone. This condition is hardly changed at two years.

The movements of the foot are not the same in the infant as in the adult. In the infant, flexion and extension are much more restricted, while adduction and rotation inward of the sole is much greater than in the adult. This is due in a measure to the laxity of the ligaments, but the difference in the conformation of the articulating surfaces exercises by far the greatest influence. As the individual becomes older, and the

articulating surfaces assume a more vertical direction, the movements of adduction and version of the foot inward are greatly diminished, and at eight years the movements are precisely those of the adult.

#### VARIETIES OF CLUB-FOOT.

From the earliest periods four varieties of club-foot have been recognized. They are designated respectively: *Talipes varus*, when the foot is adducted and the sole turned inward; *Talipes valgus*, when the foot is abducted and the sole turned outward; *Talipes equinus*, when the foot is forcibly extended, the heel being elevated and the sole turned backward; and lastly, *Talipes calcaneus*, comprising those cases in which the

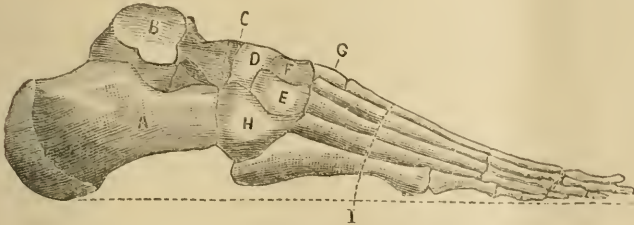


FIG. 1.

FIG. 1.—Foot of adult: A, os calcis; B, astragalus; C, transverse tarsal joint; D, scaphoid; E, external cuneiform; F, middle cuneiform; G, internal cuneiform; H, cuboid; I, metatarsal bones.

FIG. 2.—Feet of the infant.



FIG. 2.

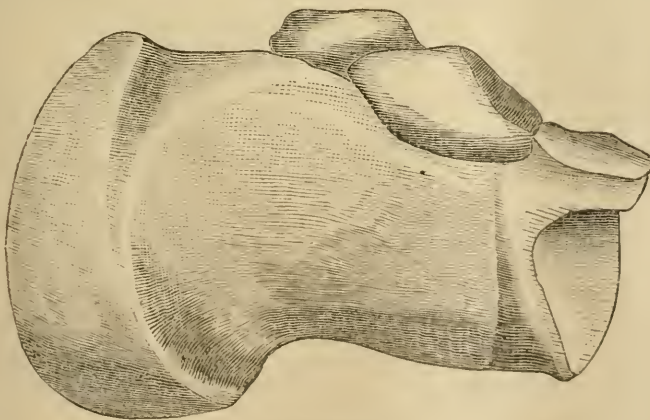


FIG. 3.—Adult astragalus.



FIG. 4.—Astragalus of infant.

foot is strongly flexed, the sole being directed forward. But beside these simple forms, four compound varieties are met with, namely: *Talipes equino-varus*; *Talipes equino-valgus*; *Talipes calcaneo-varus*, and *Talipes calcaneo-valgus*. All these forms of club foot are beautifully illustrated in the casts before you, most of which were taken from cases occurring in the practice of Dr. Detmold, Emeritus Professor of Clinical and Military Surgery in this institution. Although he was not, I believe, the first to perform tenotomy in this country, we are certainly indebted to him for the earliest impulse to orthopaedic surgery in the United States. His monograph on club-foot, long since out of print, attests his professional ability, and his enthusiasm in this department of surgery.

It is to be observed, gentlemen, that all the varieties of talipes present one common characteristic, viz.: the deviation of the plantar surface from the normal position, and by no amount of force can the whole plantar surface be brought in contact with a horizontal plane. This condition depends chiefly on a change of relation between the astragalus and the bones with which it is connected.

#### CONGENITAL AND NON-CONGENITAL TALIPES.

Each of the varieties of club-foot may be either of congenital or non-congenital origin, the latter being by far the more frequent. From statistics taken from the Maternity Hospital, at Paris, during a period of ten years, from 1858 to 1867 inclusive, it is shown that there were 15,229 births, 8 being born with club-foot; one case of club-foot for every 1,903 births. ("Lannelongue on Congenital Club-foot," Paris, 1869.) Mr. Tamplin gives the following statistics to show the relative frequency of club-foot to other deformities, and the comparative frequency of congenital and non-congenital cases: Of 10,217 cases of deformities of all kinds treated at the Royal Orthopaedic Hospital, London, 1,780 were cases of club-foot; 764 were congenital, and 1,016 were non-congenital. The proportion of congenital to non-congenital being as three to two ("Adams on Club-foot"), the question, whether the deformity is congenital or has been acquired after birth, is of great importance; for although the treatment is similar, the prognosis, both as regards the duration of the treatment, and the ultimate usefulness of the foot after the removal of the deformity, is much more favorable in the congenital than in the non-congenital variety. It is necessary, therefore, to distinguish between the two forms, and in young subjects this is easily done. The difference in the external appearances of the two classes of cases is strongly marked; but in adults there is often great difficulty in deciding the question, for the reason that the characteristic features of the two varieties become effaced when the child has walked upon the foot for a long time.

I will now mention a few salient points which will aid us in making a differential diagnosis. In congenital club-foot, before the child is old enough to have walked much, the muscles retain their normal size and characteristics; the toes can be flexed, there is some mobility of the ankle-joint, but the foot is quite rigid, owing to the adapted shortening of the ligaments. On the sole of the foot there is, in cases of varus, a transverse depression corresponding with the medio-tarsal joint. There are also marked irregularities on the dorsum of the foot, due to the distortion of some of the tarsal bones, and the temperature and color of the skin is unchanged.

In non-congenital club-foot there is, from the first, a tendency to atrophy and fatty degeneration of the muscles of the leg. The toes are permanently flexed;

the great toe is, however, sometimes in a state of forced extension, so severe that it cannot be flexed; the temperature is diminished and the skin is of a bluish color. In cold weather patients frequently suffer from chilblains; there is an absence of marked rigidity of the foot, which obtains in congenital cases, and instead of the permanent irregularities noticed on the dorsal surface in congenital cases, the foot, in the non-congenital variety, presents a generally rounded and smooth external surface.

In old cases, when the child has walked on the foot for some time, the distinctive features of congenital and non-congenital club-foot are less marked. The muscles of the leg in the congenital form, from want of use, become gradually atrophied, but there is no considerable structural degeneration as in the non-congenital, and the movements of the foot, in both varieties, are greatly restricted. Owing to the diminished vitality of the parts, non-congenital cases suffer considerably from irritation of the cushions on which they walk, and great inconvenience and pain are experienced in walking, on account of the relaxed condition of the ligaments. Still, the extremely wasted and paralytic condition of the limb, the diminished temperature and bluish color of the skin observed in the non-congenital variety, will materially aid in the diagnosis.

#### ATTITUDE AND EXPRESSION IN THE DIAGNOSIS OF SURGICAL DISEASES.

AN ABSTRACT OF A LECTURE DELIVERED BEFORE THE MEDICAL CLASS OF THE UNIVERSITY OF PENNSYLVANIA MEDICAL SCHOOL.

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(Reported for THE MEDICAL RECORD.)

THE VALUE OF ATTITUDE AND EXPRESSION OF A PART AS A MEANS OF DIAGNOSIS IN POTT'S DISEASE—COXALGIA—INFLAMMATION OF THE PSOAS MUSCLE—SYMMETRICAL COXALGIA—FRACTURE OF THE CLAVICLE—INTRACAPSULAR FRACTURE—RHEUMATIC ARTHRITIS—THYROID LUXATION OF THE THIGH-BONE—LUXATION OF THE THIGH-BONE ON THE PUEB BONE—LUXATION OF THE HEAD OF THE FEMUR ON THE DORSUM OF THE ILIUM—DISLOCATION OF THE SHOULDER-JOINT—LUXATION OF THE ELBOW-JOINT—ARTHRITIS OF THE WRIST-JOINT.

A LARGE proportion of the injuries of the bony skeleton generally manifest themselves by some peculiarity in the position of the patient. By this statement I mean that if the patient is carefully watched, the lesion will reveal itself by the position which he assumes before any other visible signs of the condition appear. This leads me to speak of the attitude and form or expression of a part as an element in the diagnosis of surgical disease. By *form* or *expression* I mean the peculiar conformation of different parts of the body in health and disease. In health, the form of one side of the body is the same as that of the corresponding side. In disease, therefore, we always compare the diseased with the sound side. Every part of the body has an expression of its own in health and in disease.

The fact that the skeleton is fixed gives expression to the surface of the body. All our best references in surgery are drawn from points on the bony skeleton. In tying the axillary artery, for instance, at its first



part, we govern our incision by reference to the position of the coracoid process of the scapula. So, too, with regard to other operations on the body, we refer to bony prominences. In fracture of the lower part of the leg, we feel for the spine of the tibia, and see how it answers with the corresponding part on the opposite side.

Let me first take up the consideration of the subject with regard to certain conditions of the spine.

#### POTT'S DISEASE OF THE SPINE.

This is a tuberculous condition of an inflammatory character, and begins in the cancellated tissue of the vertebrae, producing great ravages and horrid deformity. This disease may lurk in the spine for a long time before it is discovered. If a careful examination is made, we can generally predict the approach of this disease. It is very prevalent in young children, from birth until they reach the age of fifteen. If the secret progress of this disease can be detected by any displacement, a cure can generally be effected without any serious disorganization. No matter how early it may be detected, however, there will always be some resulting deformity. I see almost every week cases of disease of the spine which have been entirely overlooked.

One of the symptoms whereby this disease may be detected in its early stage is a feeling of discomfort about the sides, attended with sudden spasms of pain; the child cries out suddenly, and then relieves the pain by lying down. Another symptom is grunting respiration, short, hoarse breaths. We may have this symptom without the presence of Pott's disease, but its presence should always awaken the suspicious physician. Then, again, we very frequently find a child with Pott's disease leaning over a table and complaining of a tired feeling. This symptom is often present, and when so, is one of great value. The muscles of the back are weary because they are not perfectly energized by the nerves which are compressed by the inflammatory deposits and thickenings at their roots. Then, again, I have often noticed a child with the prodromes of this spinal affection jump from a chair or sofa to the floor, and, lighting on its feet, seem for a time bewildered. If such a child walks about much, it does so with a great degree of uncertainty, and has a most peculiar gait—the shoulders are drawn up, concealing the neck, the arms are fixed rigidly and held away from the body. The patient does all this, and shuffles rather than walks along, to prevent all concussion of or shock to the spine.

In a month or so after the disease has begun, the surgeon will be able to detect little irregularities in the spinal processes.

The least twist of the spine brings on pain and discomfort. The child is therefore compelled to keep perfectly rigid, and when it stoops, does so by bending one limb and carrying the arm down, while the spine is kept perfectly stiff, in other words, squats. The trapezius muscle is in a constant state of spasm, and so the patient keeps the shoulder up. The scapula, too, must be, and is, held up, for if it were allowed to drop, it would drag on the spine. The presence of this sign seems generally to indicate disease in the upper part of the column.

If, in any instance, you find one or more of these symptoms coexistent with pain in the chest and colicky pains in the abdomen, you may, in most cases, be pretty sure that you have to deal with a case of Pott's disease of the spine.

#### COXALGIA—HIP-JOINT DISEASE.

This disease very often goes on to its second stage before it is detected. Treatment, if it is to be successful, must therefore be begun early. If treatment is begun early, we may get very excellent results.

Long before there is any marked deformity in this, as in Pott's disease, certain prodromic symptoms may be discovered. These symptoms, I say, are apparent before the hip affection is manifest.

The earliest sign is a certain posture assumed by the limb on the affected side. The patient stands in a peculiar way. He rests firmly on the sound limb, but not on the other. One limb is well nourished and rotund, the other is generally somewhat emaciated, and is advanced, carried forward, and flexed at the knee on the thigh, and at the thigh on the body. The foot is also everted. Another point is the change which may be noticed in the crease which separates the nates from the thighs. This crease is entirely gone on the diseased side.

The limb assumes the attitude which I have described above, on account of certain conditions due to the effusion in the joint. There is in all cases a synovitis—the initial lesion, if in the head of the bone, induces the synovitis. Coxalgia, in fact, never exists without synovitis. The serum in the joint requires room, and the patient places the limb in a position to give this effusion the greatest room. The natural position of the limb would give it no room at all. The amount of room is increased by flexing the limb at the knee and the hip, and turning the toes out. You can very easily verify this fact in the dissecting-room. To do this, you must bore a hole above the acetabulum in a sound limb, and inject water into the joint. The limb on the side where the joint has been thus injected will take the very position which it assumes in a case of coxalgia.

Another prodromic sign of the disease is the following: if a child is placed in the recumbent position, and if it is healthy, it is just possible to edge in the fingers between the child's loins and the plane upon which it is lying. To do this, of course, the child must be placed upon a table, or some flat surface, and its limbs well straightened out. If one of the joints, however, in such a child be diseased, the knees will be raised when the child is placed upon the table, and then, if they be thrust down, the whole fist can be introduced between the table and the loins—the whole pelvis, in fact, goes up as the knees are pushed down.

The reason of this ought to be very clear to you all.

When I force the knees down, I put the psoas and iliacus muscles on the stretch. To relieve the pain caused by this stretching of these muscles, the patient puts his body in the position on the table which I have described, viz., with his knees raised.

#### INFLAMMATION OF THE PSOAS MUSCLE.

The same deformity may occur in this disease as in coxalgia, and the patient may behave much in the same way. Mistakes are therefore very easy to make in regard to the diagnosis between these two diseases. The distinction may be made in the following manner: You must take hold of the limb and flex it. If it is flexed beyond a certain line, the pelvis in coxalgia will rise. In the case of inflammation of the psoas, the pelvis is not affected by this treatment.

#### SYMMETRICAL COXALGIA.

This is an affection of both hip-joints. It is often mistaken for spinal trouble. The position is very

peculiar at a certain period in the course of the disease, viz., when, after the conclusion of the first stage, the affection takes a favorable turn and ankylosis has commenced. The thigh-bones are carried forward, and the patient throws himself very far back, producing a deep concavity in the lumbar region. In walking he balances himself by throwing his hands and arms forward. At the same time the chest is made prominent. In bad cases of this affection the patient may be forced to assume a trotting gait.

#### FRACTURE OF THE CLAVICLE.

You see every now and then a patient walking into the hospital carrying one arm in the opposite hand, and leaning forward towards the side of the helpless arm. The whole body is inclined to that side. The explanation of these symptoms is an easy one. When the clavicle is broken, the shoulder drops, and carries the trapezius muscle down with it; while the sterno-cleido-mastoid muscle contracting, draws the inner fragment of the clavicle up. The patient feels the want of support for his shoulder, and puts his hand under the arm to hold it and the shoulder up. If he inclined his head towards the other side of the body, it would drag on the sternal fragment of the clavicle. By inclining the body and head towards the injured side, both the trapezius and sterno-cleido-mastoid muscles are relaxed.

#### INTRACAPSULAR FRACTURE.

Let us take, for example, a person over sixty years of age who has slipped on the pavement and doubled his limb underneath him in falling. On attempting to rise, the person may be unable to stir, or, if he has been helped up, finds one limb helpless. Such a patient will be found lying with the sound limb turned a little out, and its helpless, injured fellow turned so far out as to be resting entirely on the outer side of the limb and foot. The patella on the injured side will be found, upon careful examination, to look directly outward.

#### RHEUMATIC ARTHRITIS.

After the effusion has commenced in this disease, the limb on the diseased side is a little swollen, and, instead of lying parallel with the other limb, is flexed and carried away from it. The limb assumes the posture described above, because that position affords the greatest room to the fluid effused within the joint. A patient with rheumatic arthritis is afraid to touch anything with the affected member, dreads the least movement, and raises the hands in a warning attitude.

#### THYROID LUXATION OF THE THIGH-BONE.

In thyroid luxations of the thigh-bone the arms are placed behind the body, or crossed in front. The upper part of the body leans forward. The affected limb is held straight, with the toes turned out.

When, in the adult, the luxation has taken place into the obturator foramen, the toes are turned out by the rotator muscles. The limb may very often assume this position without the existence of a luxation, but when any violence has been suffered by the limb, and it assumes the position just described when the patient stands upright, we may be quite sure of the nature of the injury.

#### LUXATION OF THE THIGH-BONE ON THE PUBIC-BONE.

In this condition the limb is slightly flexed, and still further everted than in luxation of the thigh-bone. The body inclines towards the injured side.

The hand usually rests on the leg, and the thigh-bone is carried forward.

The patient puts his hand on his leg to prevent spasm of the muscles.

#### THE LUXATION OF THE HEAD OF THE FEMUR ON THE DORSUM OF THE ILIUM.

Here the foot will be found to be everted. There will also be seen to be an unusual projection on the hip. The patient leans towards the affected side. The disabled limb is slightly flexed and shorter than its fellow, and is usually so much inverted that the toes touch the ball of the great toe of the other foot.

In another case of luxation of the head of the femur on the dorsum of the ilium where the bone is found to be a little lower down the general position of the limb is almost exactly the same, except that the toes are still more inverted and higher, nearly touching the instep. The adductor muscle draws the leg towards its fellow, thus partially rotating it, while the psoas, iliacus, and pectineus are engaged in flexing the limb and drawing it up.

#### DISLOCATION OF THE SHOULDER-JOINT.

This luxation is very often overlooked. No matter what the nature of the luxation, the arm will always be found to stand off from the body, unless it is a very old case, when it may hang stiffly at the side of the body. This luxation always flattens the shoulder.

The reason why the arm stands off from the body, in subcoracoid or subglenoid luxations of the shoulder-joint, is because the deltoid muscle is put upon the stretch, and the arm is thus forcibly pulled away. When the limb is found in this position, if the attempt be made to push it to the side of the body, it will immediately spring back.

#### LUXATION OF THE ELBOW-JOINT.

In this luxation the arm is usually rigid, and a marked prominence is felt behind the elbow; the elbow stands far back, the skin being stretched tight over the extremities of the ulna and radius. In these cases the arm is generally in a state of moderate flexion.

#### ARTHRITIS OF THE WRIST-JOINT.

The hand is held straight out, and there is a very marked swelling at the back of the wrist. The fingers are glossy. Any attempt to move the joint gives rise to the most exquisite pain. Arthritis of this joint frequently terminates in disease of the bone substance. The joint may recover if ankylosis takes place. This peculiar conformation and position of the hand and wrist is not found in luxation or fracture. It is the posture which gives the greatest amount of room to the effusion.

**REMOVAL OF MOLES UPON THE FACE.**—Dr. Llewlen Thomas advises (*British Medical Journal*) the use of the acid nitrate of mercury for the removal of moles upon the face. No pain attends the application, if care be taken to prevent touching the surrounding skin. The growth gradually shrivels away; the slough falls off in about a week, leaving only a very faint depression like a very indistinct small-pox mark.

**OXIDE OF ZINC IN DIARRHŒA.**—Dr. Jacquier, in the service of Dr. Bonamy, at Nantes, has noted the excellent effects of the following formula: Zinc oxide, gr. liv.; sodab carbonate, gr. vijss. M. Divid. in pulv. iv. Sig.—One every six hours. In all cases the zinc produced rapid cures, even in chronic cases.



## Original Communications.

## DERMALGIA, ETC., FROM QUININE.

By HENRY M. FIELD, M.D.,

PROF. THERAPEUTICS AT DARTMOUTH.

I HAVE had within the year a case which well illustrates certain observations of Dr. Lente in the last number of the MEDICAL RECORD. A young married lady, recently from Indiana, summoned me for a severe attack of "chills and fever." She told me almost at first that she could not take quinine; that her father—giving the name of an Indianapolis physician, whom I knew by reputation—had despaired of using it in her case. She said, further, that it *poisoned* her; "it is as if every drop of blood and every tingling nerve were in my skin." There was great heat, oedema, in some places, especially in face and hands, great increase of cutaneous sensitiveness; all followed in a few days by desquamation of the cuticle. With these accidents were associated more or less of gastric disturbance, and, upon one occasion, violent and repeated vomiting, headache, and delirium.

Altogether, the suffering was so great, she said she preferred the "chills and fever." That her father had no resources for her except the imperfect and slowly-acting arsenic and strychnia.

As my patient was intelligent, I related to her the course I had pursued in several similar previous cases, and proposed it for herself. It consisted in giving quinine in greatly lessened doses. She accepted my proposition, but evidently with fear and reluctance. Four to five grains sulphate quinine for the twenty-four hours acted with full therapeutic power, but still produced a light attack of the skin disease—enough to suggest alarming results should the usual one to three grammes doses be prescribed. She made a satisfactory recovery.

The course suggested is, I am satisfied, so far as one can be from a limited experience, the right course to pursue in these cases of idiosyncrasy.

The exceptional—even the abnormal—action of a remedy may be of valuable assistance to us in interpreting the laws and the phenomena of its usual physiological action. For that reason, such cases as that detailed may have an especial interest for us. We are not to suppose that the quinine, in this its extraordinary influence, is excreted from the skin, as some writers have taught. There is no sufficient evidence of this.

On the other hand, I believe—as I have tried to show in my monograph on certain salts of quinine about to be published by the Vermont Medical Society—that the *main action* of the great remedy is *exerted upon the sympathetic*, and not upon the cerebro-spinal system of nerves. I think no one can attentively study Briquet's treatise without coming to the conclusion that such was his opinion, though it be not anywhere expressed in words. I cannot do more here than express this fact of my belief—although it involves many important considerations—that the dermalgia, urticaria, oedema, etc., which sometimes result from what should only act as a medicinal dose, serve to illustrate and enforce it.

Then, again, quinine makes a signal impression upon the vaso-motor system, as well of the cutaneous surface as of the nerve-centres—an impression which involves facts of great importance both in physiology

and therapeutics. It has its own appropriate influence upon the heart, the arteries, and the capillaries and arterioles. With this in view, it is not strange that a departure from its normal working should bring discomfort or disaster to the skin.

Then, finally, quinine has a special action upon the skin as truly as arsenic has, but not of such significance of course, and thus far insufficiently studied. I am satisfied certain remedial resources await investigation in this direction. The praise which Mr. Erasmus Wilson accords to quinia for its power to cure that neurosis of the skin known as *pruritus*, and Mr. Spender's success with it in *pruritus ani* will serve to illustrate this statement.

## A CASE OF VAGINISMUS

IN WHICH IMPREGNATION OCCURRED WITHOUT PENETRATION OF THE INTRAMITTENT ORGAN.

By CHARLES ROTH, M.D., Ph. D.,

SURGEON TO THE NORTH-EASTERN DISPENSARY FOR DISEASES OF WOMEN.

Mrs. H., born in United States, 22 years of age; has been married about two years. She has always been in perfect health after having had the ordinary diseases of childhood. She consulted me in March, 1878, because of an inability to have sexual intercourse with her husband, the mere attempt causing her the most excruciating pain. An examination of her sexual organs was proposed to her. To this she readily consented, but so extremely sensitive were the parts, that on the slightest touch with the finger to the vulva, she would scream for pain, thus making it impossible to examine her without an anæsthetic.

This I proposed to her, and on the following day she was seen with me by Dr. T. Keune, and put under the influence of ether. The labia being separated, a small vascular excrescence (caruncle), about the size of a pea, was found near the meatus urinarius, and, upon further examination, the remains of the hymen were found in great hyperæsthesia, of which large shreds projected into the vagina. There was nothing unusual in the appearance of the uterus, and no further examination was made, as the above condition was considered enough to produce the symptoms of which the patient complained. This was proven by the fact that, as she came out of the influence of the ether, touching the caruncle or the remains of the hymen would cause her to draw away. An operation for the removal of these was proposed to her, to which she consented.

About four days after the examination, with the assistance of Dr. T. Keune, I operated upon her. The patient being anesthetized and placed on the back upon a table, the remains of the hymen were entirely excised by a pair of curved scissors, and the caruncle at the meatus urinarius was seized with a tenaculum, and cut off with the scissors. The hemorrhage was very slight, and ceased under the application of a compress wet with water. The day following the operation, the glass vaginal dilator of Dr. Sims was introduced, commencing with the small size, which is three and one half inches in circumference. This was worn for two hours in the morning and four in the evening for three days; then the next size introduced, which was four inches in circumference, and worn for five days; and then the third size, four and one half inches in circumference. This was worn for about two or three weeks. The vaginal dilator at first caused some pain in introducing, but this soon sub-

sided, and the patient readily introduced them herself.

About a month after the operation she was perfectly cured, and, I may add, that she is now about four months advanced in pregnancy. The most interesting part of this case is, however, that, although her husband was unable to have connection with her, semen was discharged at the vulval orifice, and the spermatozoa found their way to the uterus, which they impregnated.

As the statement of both parties could be relied upon, and no signs of pregnancy visible, the woman being regular in the menstrual epoch, and no morning sickness complained of, the uterus was examined with the sound while the patient was under the anæsthetic for the operation, and was found to be enlarged and anteverted. To my surprise, I was summoned to her bedside a few days later, when she aborted, the fœtus being about two months of utero-gestation.

The fact which I wish to elucidate by the case is, that although in these cases of extreme vaginismus sexual contact is impossible, yet there are cases where impregnation has resulted, the semen being discharged over the external genitals, the spermatozoa have found their way to a more fertile region. Had I borne this fact in mind, and examined more closely for the signs of pregnancy, I might have found some which would have caused me to hesitate in passing the sound into the cavity of the uterus. Although the signs may have been present at this period, they were very indistinct.

292 EAST FIFTY-SECOND STREET.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

##### POINTS OF INTEREST IN CASES OF LEAD-POISONING.

A MALE patient, æt. 20, and a worker in a looking-glass factory, gave the following history: Family history unimportant. He suffered from small-pox and scarlet fever when a boy, and last year had what was called bilious fever. He had been at work in his present occupation five years. With reference to his present illness, he first suffered from pain along the anterior and outer aspect of both arms; soon after, the right arm began to be weak. His appetite was poor, he had had some vomiting, had suffered from pain in the stomach and bowels and from constipation. The pain in the arms and the bowels continued for three or four weeks, and at times was quite severe. He had also suffered from pain in several of the joints. On stripping the patient it was found that there was marked tremor in the deltoid muscles as soon as a voluntary effort was made. The patient could extend the hands without difficulty, yet he could not do so against a very moderate amount of resistance. The blue line along the edge of the gums, commonly present in lead poisoning, was well marked. There was no marked pallor of the face. The case was regarded as interesting and exceptional from the fact that the primary paralysis was manifested in the muscles of the arms and shoulders; principally the deltoids. The tremor suggested the influence of mercury, but

it had been found upon investigation that mercury was not used in the shop in which the patient had worked.

The source of the lead-poisoning was supposed to be a red powder that was used for polishing purposes.

CASE II.—A male patient, æt. 45, and a worker in the Atlantic White Lead Works in Brooklyn, had painter's colic in 1862. His present sickness was of about eleven days' duration. He was attacked with pain in the bowels, which compelled him to cease labor, and it lasted about two hours. He then had some vomiting. With the colic there was also some diarrhœa. The blue line along the edge of the gums was well marked. It was thought that the colic was due to the effect of the lead, in part at least, and that the diarrhœa was the exceptional symptom in the case. There was no paralysis.

The treatment recommended was the daily use of a warm bath accompanied with brisk friction of the skin, removing the constipation, in the case in which it was present, by the use of croton oil and the internal use of iodide of potassium.

To relieve the pain hypodermic injections of morphine were to be given. In addition, the galvanic current was recommended for the paralysis.

#### LEUCOCYTHÆMIA—INTERESTING CASE.

The interest in this case centered upon the fact that, notwithstanding the great abundance of the white blood-corpuscles, there was scarcely any pallor of the face or of the mucous membranes. The patient was a man, æt. 26 years, and by occupation a laborer. Family history good. He himself had been a hard drinker. He had had more or less of malarial fever during the past four years; the last attack occurring about one year ago. He had had suppuration of the glands in the groins, but had no knowledge of ever having had either a chancre or gonorrhœa. He came to be treated for pain through the bowels and in the epigastric region. Upon physical examination the femoral glands upon both sides were found enlarged, also the cervical glands upon the left side. In the abdomen there was a hard tumor, which extended from the free border of the ribs upon the left side downward nearly to the crest of the ilium, and to the right of the median line of the body. Just above the umbilicus a distinct notch could be felt in the edge of the tumor. Microscopical examination of the blood showed that the white corpuscles were present in the proportion of one to two of the red. The diagnosis was leucocythæmia of the splenic and glandular variety.

#### ACUTE BRIGHT'S DISEASE—STRIKING CONTRAST IN THE SYMPTOMS IN TWO CASES.

Two cases of acute albuminuria were seen which were worthy of note because of the striking contrast in the symptoms.

The first patient gave the following history. Mrs. Mc—, æt. 35, married, and the mother of eight children, was admitted to the hospital September 18, 1878. She had always been a healthy and a hard-working woman. Three weeks before her last confinement she noticed a diminution in the quantity of urine passed daily, and also noticed that it was high-colored. At the same time she suffered from headache, pain in the lumbar region, vomiting, and her legs and feet became swollen. Her labor was normal. One week after parturition while washing, she was exposed to cold considerably, and soon after the swelling in the feet began to increase, the pain in the head and back became more intense, and she suffered from vomiting, but had no diarrhœa. In this condition she was brought to the hospital. On admission she had some



dyspnoea, some general bronchitis, and complained of pain in the back, and loss of appetite.

Her urine was dark-colored, had an acid reaction, a specific gravity of 1028, contained albumen in abundance, and small epithelial and hyaline casts.

The treatment consisted in the use of infusion of digitalis in half-ounce doses every three hours, and as a palliative remedy for the dyspnoea, teaspoonful doses of a mixture composed of equal parts of U. S. solution of morphia and co. spts. of ether.

Under that treatment the quantity of urine had steadily increased, the bronchitis had almost entirely disappeared, the oedema had been very much reduced, and the general condition of the patient in every way improved.

The diagnosis of acute Bright's disease was based upon the suddenness of the attack, the rapid development of the general dropsy, the diminution in the quantity of urine passed daily, its dark color, its high specific gravity, and the presence of epithelial and small hyaline casts.

The leading symptom in the case was the general dropsy, from which she had not suffered in connection with either of her former pregnancies.

The second patient was a widow, æt. 40, who was admitted to the hospital September 30, 1878. Her family history was unimportant. Her occupation was that of a laundress, and she had been a hard drinker. Three weeks before admission, and without apparent cause, the patient began to suffer from headache, which continued without intermission, though not sufficiently severe to prevent her from performing her daily labor. At the end of four days she thought she took cold; she vomited, and the headache increased so much in severity that she was obliged to go to bed. At the same time she suffered from pain in the lumbar region, and noticed that the quantity of urine passed was notably diminished. There was no diarrhoea. The headache increased in intensity, the patient became unconscious, and in that condition was admitted to the hospital. Soon after admission she had a convulsion which left her in a comatose condition. The convulsion was epileptiform in character. There was no history of epilepsy.

There was no dropsy, either local or general. Uræmia, however, suggested itself as the pathological condition which gave rise to the coma. A catheter was introduced, and a quantity of urine obtained which had a specific gravity of 1020, contained albumen in abundance and epithelial casts.

Her temperature was  $102\frac{3}{4}^{\circ}$  F. Attention was specially directed to that point, because it had been claimed by some that pure uræmia did not involve an elevation of temperature. The treatment consisted in the use of half-ounce doses of infusion of digitalis every two hours, dry cups over the kidneys, the administration of ten drops of Magendie's solution of morphia subcutaneously, and one drop of croton oil by the mouth. The patient became more restless, and then being unable to swallow, ten drops of the tincture of digitalis were given hypodermically, and also ten minims of Magendie's solution.

At the end of three hours, no special change in the condition of the patient being manifest, a drachm of the fluid extract of jaborandi was administered hypodermically. The patient soon broke out in a profuse perspiration. Two hours later she was able to swallow, and took a small quantity of milk. The drop of croton oil did not move the bowels.

Oct. 1st.—The patient's temperature was  $102^{\circ}$  F. Her mental condition was improved, and she was able to answer questions. Twenty-one ounces of urine were

drawn, and on testing it, it was found to contain albumen and epithelial casts, and had a specific gravity of 1020. She was placed on a milk diet, and half-ounce doses of infusion of digitalis with drachm doses of the U. S. solution of morphia were administered every two hours. Two drops of croton oil were also given. In the afternoon she passed twenty-two ounces of urine and had a copious diaphoresis. The urine had a decidedly smoky appearance.

Oct. 2d.—The patient's mind was clearer, and she passed urine freely. Treatment continued.

Oct. 3d.—General condition improving. Croton oil had not moved the bowels, and sulphate of magnesia was administered, but was rejected by vomiting. Urine abundant.

Oct. 4th.—No movement from the bowels. Specific gravity of the urine, 1020; it contained no casts, and only a mere trace of albumen.

The subsequent history of the case was that the patient made an apparently good recovery. The case was interesting because of the manifestation of the graver symptoms of uræmia without dropsy, either general or local, and contrasted well with the former case, in which the leading symptom was the general dropsy.

#### ACUTE PNEUMONIA—DEMAND FOR POTENTIAL MEDICATION—PULMONARY OEDEMA.

The case was interesting because of its severity and its complications.

A newsboy, æt. 14 years, German, was admitted to the hospital, October 20, 1878. Family history unimportant. He had usually had good health up to last winter, when he suffered during the entire wintry season from chills and fever. Three days before admission to the hospital he began to suffer from pain in the right side, near the nipple. The pain was sufficiently severe to prevent sleep. The following day he had a sharp chill, and at the same time began to cough. The cough was painful and was accompanied by a small amount of expectoration. The expectoration was not rusty. He had no chill after the first, but suffered from pain in the back, headache, and nausea, but no vomiting. His bowels were loose. During the thirty-six hours immediately preceding admission to the hospital he suffered from dyspnoea, and for three days had not had any food.

When admitted, his pulse was 145, respiration 48, and temperature  $105\frac{1}{4}^{\circ}$  F. His face was flushed, his respiration was panting, and accompanied by moaning. The cough was painful. The sputa were viscid and tenacious, but not rusty. The pain in the region of the right nipple was severe. On examination, the physical signs of solidification of the lower lobe of the right lung were found. The urine had a specific gravity of 1033, contained urates, but no albumen.

With the high temperature, the increased frequency of pulse, and the pain, it was believed that the indications for treatment were to give the patient relief from the pain, and to sustain the vital forces.

Those indications were met by administering a half drachm of U. S. solution of morphia, two drachms of whiskey, and placing the patient on a milk diet.

In the evening of the same day, the pulse had fallen to 120, and the respiration to 44. That condition was doubtless due to the combined influence of rest in the hospital and the remedies employed.

At 5 p.m.,  $\mathcal{M}$  v. of the tincture of digitalis were given, and  $\mathfrak{z}$  ij. of whiskey.

At 6.30 p.m., the pulse was 120, the respiration 42. Two drachms of whiskey, half a drachm of U. S. solution of morphia, and milk, were administered.

8 p.m. Pulse 104, respiration 40, and temperature 105° F. Two drachms of whiskey with milk were given, and repeated every three hours.

At 10 p.m. the pulse was 120, and the respiration 40.

Oct. 21st.—Morning.—Pulse 123, respiration 44, temperature 104½° F. The patient complains of pain and means with each respiration, unless kept under the influence of morphine. He takes milk freely and does not vomit.

Physical examination reveals evidence of consolidation of lower lobe of right lung. The whiskey was continued in two-drachm doses every two hours.

12 m. The pulse was 130, and the respiration 36.

At 2 p.m. the pulse was 130, and the respiration 40.

At 3.15 p.m. the pulse was 120, respiration 38, and the temperature 105° F.

The patient complained of pain, and a half-drachm of the U. S. solution of morphia was given.

5 p.m. The pulse was 122, and the respiration 42, and at 7 p.m., the pulse was 109, and the respiration 40. The patient was somewhat delirious. A drachm of the U. S. solution of morphine was administered.

At 10 p.m. the pulse was 112, the respiration 34, and the patient was asleep and perspiring.

Oct. 22d.—At 7.30 A.M. the temperature was 104½° F. Two drachms of whiskey and ten drops of the aromatic spirits of ammonia were ordered every hour.

At 9.20 A.M. the pulse was 120, and the respiration 48. The patient takes milk and eggs freely. Five minims of Magendie's solution of morphia were given hypodermically.

2 p.m. The pulse 120, respiration 35, and temperature 103½° F. Whiskey continued in two-drachm doses. Tincture of digitalis was ordered in doses of 10 minims every two hours. Five minims of Magendie's solution were administered hypodermically.

At 4.35 p.m. the pulse was 128, respiration 32, and the temperature 103° F.; and at 8 p.m., the pulse was 120, the respiration 33, and the temperature 103°. Whiskey and aromatic spirits of ammonia to be given every hour. Ice and carbonic acid water p. r. n.

9 p.m. Retention of urine, and catheter employed. Pulse 118, and respiration 34. Morphine to relieve the pain.

Oct. 23d.—At 3 A.M. the pulse was 112, and the respiration 36. The tongue was dry. The patient was rational. There was pain in the right side, and ℥ v. of Magendie's solution of morphia were given hypodermically.

At 7.30 A.M. the pulse was 109, the respiration 33, and the temperature 103½° F. The urine was drawn.

At 10 A.M. the pulse was 128, and the respiration 30. For the first time the patient had a rusty expectoration. He also complained of intense pain in the side. Physical examination revealed the fact that the upper lobe of the right lung had been invaded, and that there were evidences of consolidation at the apex. The fact that the extension of the solidification had taken place without special variation in pulse and temperature was regarded as evidence that the fever was essential, and not merely symptomatic of a local affection.

At 2.30 p.m. evidences of pulmonary œdema were developed. Dry cups were freely applied, and in a short time the patient was considerably relieved. Two drachms of whiskey, ℥ x. of tincture of digitalis, and ten drops of the aromatic spirits of ammonia were given every half hour.

At 4.30 p.m. the physical signs of œdema of the lungs had disappeared. The pulse was 115. The whiskey, the aromatic spirits of ammonia, and the tincture of digitalis were repeated every hour.

At 7 p.m. the pulse was 130, the respiration 35, and the patient complained of severe pain in the right side. Five minims of Magendie's solution of morphia were administered hypodermically, and also ℥ viii. of tincture of digitalis. An enema was given, which produced free evacuation of the bowels and also of the bladder.

At 8.30 there was evidence of a moderate amount of pulmonary œdema, and ℥ x. of tincture of digitalis were given hypodermically. The patient also received 5 i. of the U. S. solution of morphia.

At 10.30 the evidence of œdema had disappeared, and the respirations were 34.

Oct. 24th.—At 1 A.M. ℥ x. of tincture of digitalis were administered. At 3 A.M. the pulse was 120, the respirations 29, and there was no evidence of œdema. He was suffering from pain, and 25 minims of tincture of opium were given, and ℥ x. of tincture of digitalis.

At 5 A.M. he received ten minims of the tincture of digitalis. At 7.40 A.M. his temperature was 104° F.

At 8 A.M. ℥ x. of tincture of digitalis were given, and at 9 A.M. the pulse was 118, the respirations 32, and the patient was not suffering from pain.

The prognosis, however, was very unfavorable. It was with the view of preventing, if possible, the formation of heart-clot that the digitalis and the ammonia were administered.

The boy began to improve on the following day.

At the end of one week he was convalescent. The case then afforded a striking illustration of the rapidity with which the pneumonic exudation sometimes disappears, for the evidences of pulmonary consolidation were almost entirely absent.

During the entire course of the pneumonia, there was almost no expectoration, thus furnishing positive proof that an extensive exudation may be removed altogether by absorption.

The treatment after October 25th consisted chiefly in the administration of nourishment and a moderate quantity of alcoholic stimulants.

## Progress of Medical Science.

A CASE OF ŒSOPHAGOTOMY.—At a meeting of the Clinical Society of London, Mr. MacCormac read a paper by Dr. McKeown, of Belfast, on this case. The patient consulted Dr. McK. on the 16th of January last; three weeks previously she had swallowed a set of false teeth, which stuck in the œsophagus. Various attempts had been made to displace it, but without avail. By palpation a body could be felt at the lower part of the neck on the right side, and by passing a whalebone with a smooth metallic end down the œsophagus, the diagnosis of a foreign body was confirmed. The patient being able to swallow sufficient food to keep her alive, and the body being just within reach of forceps, Dr. McKeown did not propose œsophagotomy till all other measures had failed. By manipulations on the outside the body was moved from the right to the left side, and seemed to have been pushed upwards. On two occasions it was seized firmly by long strong œsophageal forceps, but on the second occasion most alarming symptoms showed themselves. The plate could be moved easily from side to side, but when traction was exerted to bring it upward, the patient became livid, respiration seemed to cease, she could not speak, the tongue protruded from the mouth, and the eyes stared. It seemed as



if tracheotomy would be necessary, but fortunately, on relaxing the grasp and removing the forceps, all the symptoms quickly abated. All further attempts at extraction by the mouth were definitely abandoned, and œsophagotomy was performed on January 28th. The incision was made on the left side, and extended along the groove in front of the sterno-mastoid, from a point about opposite the middle of the thyroid cartilage to near the sternum. The cervical fascia having been cut, the carotid sheath, with its contained vessels, was carefully separated (chiefly by the handle of the scalpel and the director, scissors and knife being occasionally used to cut resisting bands of fascia) from the laryngeal muscles, thyroid body, trachea, and œsophagus. The œsophagus was then opened as freely as possible, but much trouble was experienced in removing the plate, because of its size, inequalities, and hooks. It could neither be moved up nor down, because of its hooks, and it was only by rotating it that it was at last freed and extracted. The plate was found to be situated entirely in the œsophagus at its beginning, the long diameter being vertical. After the operation the patient made uninterrupted progress. She was fed for a week by the stomach-pump tube. On the seventh day the œsophageal wound was healed, and on the fourteenth day the whole wound was closed. The wound was kept scrupulously clean by syringing with a solution of Condy's fluid, and also by causing the patient to swallow frequently, while the œsophageal wound was open, a little weak whiskey and water with chlorate of potash, a portion of which would pass from within outward. On leaving town the patient could swallow quite well, and her speech was unimpaired. Dr. McKeown concluded by remarking, that had he known beforehand the shape of the plate, he would not have persevered so long in attempting to extract it by the mouth, but would have operated at once. He thought the operation should be more frequently performed than it is. The plate was exhibited to the Society; it had three incisor teeth attached, and a place for a fourth. Its length was an inch and a half.—*The British Medical Journal*, June 29, 1878.

**PROPYLAMINE IN CHOREA.**—Dr. Parkhauser recommends propylamine as a prompt and effective remedy for chorea. He claims that it effects a cure in three or four days; relapses are cured in one or two days. He gives it in doses of from 15 to 19 grains per diem; this quantity is dissolved in four ounces of water and one ounce of syrup, and a spoonful is administered every hour. In his hands, three or four grammes, given in as many days, have invariably produced a complete cure.—*Le Mouvement Médical*.

**ARSENIC IN THE TREATMENT OF THE BROMIDE RASH.**—The occurrence of bromide rash is not a rarity, but at the Queen-square Hospital a bad example of it has, according to Dr. Gowers, not been seen since the value of arsenic in the affection has been known. The rash occurs equally with the bromides of potassium and sodium, and still more readily with the bromide of ammonium, but it is always influenced by the arsenic. Many observers have noted the benefit derived from this drug, and the cases reported by Dr. Gowers fully corroborate it. They show, moreover, that, irrespective of age, the dose of arsenic required to remove the rash varies in different cases, and the dose required does not always depend upon the amount of the rash. The dose which cured some cases only effected a slight improvement in others, which did not yield until a large dose had been given. The arsenic affects the rash

on the face more readily than that on the trunk. A dose of arsenic which removed the rash from the face had to be increased before that on the trunk disappeared. In the twelve cases cited by Dr. Gowers, the dose of the arsenical solution varied from grt. i. to grt. v., and the time occupied by the fading of the eruption varied from two weeks to two months, but the good effect of the drug ceased with its administration. Many other agents for the treatment have been tried, but none has been found of value comparable to that of arsenic.—*The Lancet*, June 15, 1878.

**CAUSES AND CURE OF INSOMNIA.**—Prof. James Sawyer, of Queen's College, divides insomnia into three groups which he names "psychic," "toxic," and "senile." The psychic form may be due to sudden and severe mental shock, which will sometimes at once induce persistent insomnia; or to prolonged mental strain, in all its varied phases, which produces partial or complete vaso motor paralysis of the intracranial blood-vessels. The subjects of this form of insomnia are mostly men, particularly those of nervous temperament. A well-marked group of symptoms always follows prolonged suffering from this affection, most of which are given by certain writers among the signs of cerebral hyperæmia. It is probable that they mark what may be called irritable exhaustion of the brain, attended by more or less abnormal increase of intracranial vascularity, and accompanied by some general prostration of the bodily powers. In this form, an unnatural excitation of the cerebral vessels is the initial fault. In the next, the toxic form, a poisonous agent maintains cerebral vascularity at such a height that conscious cerebral activity—that is, wakefulness—is an inevitable consequence. Such a poison may be introduced into the body from without, or it may be a product of diseased processes arising within the body itself. The external poisons which most frequently give rise to sleeplessness are tobacco, alcohol, tea, and coffee; the internal, products which accumulate in gouty persons and in subjects of kidney disease. When due to the latter cause (internal poisons), the insomnia is rarely complete, the patient complaining that he has great difficulty in falling asleep, that he is easily awakened, and that he always dreams when asleep. The senile form is due to the degeneration of the smaller cerebral arteries; the vessels become less elastic, and physically unable to adapt themselves to the condition of relative arterial anemia which is requisite for healthy sleep. In the treatment, soporifics are often necessary. Of these, the chief are chloral, opium, morphia, the bromides, Indian hemp, alcohol, and affusion with cold water. In the severer forms of psychic insomnia, sleep must be at once procured by some efficient hypnotic, preferably chloral. In the more chronic forms, chloral should be sparingly used. In the well-nourished, bromide of potassium, in from thirty to sixty grain doses, is by far the best hypnotic. Tincture of ergot, or tincture of digitalis may be combined with it. In many cases of chronic psychic insomnia, when the patient is worried, sorrowful, weakly, and anæmic, alcohol in the shape of a "nightcap" is without an equal. The formation of regular habits, and the taking of sufficient daily exercise should be insisted upon. In the toxic forms, the external poisons should be removed; the treatment of the internal forms involves the treatment of the diseases from which the poisons are derived. Senile insomnia is very obstinate; perhaps in the bromides, with full doses of hop or henbane, we have the best and least harmful means for its relief.—*The Lancet*, June 22, 1878.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE PUBLIC HEALTH ASSOCIATION.

The American Public Health Association met last week and held a four days' session. An account of its proceedings is given elsewhere.

Owing to the fact that the Yellow Fever Commission was to report to it, the meeting this year aroused more than usual interest, and a large number of members attended.

We do not find that any very remarkable conclusions have been furnished by their deliberations. A good deal of time was spent in cementing the North and South with the emotions awakened by the late epidemic, and also in giving minute details of its history. Perhaps there was as much accomplished, however, as could be expected in the line of solving the yellow-fever problem, for the Commission had only been at work for six weeks. At any rate, they came to certain conclusions which will eventually be of great practical good, for they looked toward securing more universal and energetic action in the direction of public hygiene.

The Convention voted that yellow fever was an exotic disease, and could be prevented by quarantine. But as this quarantine must be extremely rigid and uniform for all endangered localities, it follows that legislative help is imperatively required. A committee was appointed to see that such help is obtained.

The Association did not advocate any special scheme of public health service, and did not ask for any special national commission, although such a project has been recommended by several scientific societies, and the President has listened favorably to memorials in regard to it.

The action of the Association, as far as it has gone, has given, however, a strong impetus to the securing of a more perfect system of national quarantine.

In regard to the more scientific aspects of the epidemic, the question of local or exotic origin was the one chiefly agitated. While the fever was voted to be

an importation, there was a strong minority against this view, and the question cannot be considered settled. There was the same uncertainty in the conclusions respecting the value of disinfectants. The Yellow Fever Commission considered them useless, but this view was rejected by the Association.

It is to be hoped that the advice of the Association to the Yellow Fever Commission, that they endeavor to find the essence itself of the disease, can be carried out. The plans suggested would involve a deeper search into the first causes of disease than have yet been made.

We are obliged, indeed, to rest our satisfaction in the work of the convention on the results that are promised, more than on what have been given. Fortunately, much confidence in the realization of the former can be reasonably entertained.

## MORE HOMŒOPATHIC RESOLUTIONS.

The resolutions, found in another column, recently adopted by the Homœopathic Medical Society of Northern New York, at their annual meeting at Saratoga, afford additional evidence that a large proportion of the adherents of that school are gradually throwing off the mantle of transcendentalism that has so long enshrouded them. Finding, or believing that they found, many of the assertions and doctrines of Hahnemann capable of verification, his early followers somewhat rashly concluded that all his propositions—practical, theoretical, and speculative—were likewise true. It appears to have taken them a good many years to discover that such was not the case, but, having done so, with commendable frankness, they, by public declaration, throw off their allegiance to one of the most extraordinary of the doctrines that emanated from the fertile brain of the founder of their sect. This theory of dynamization, if it means anything, means that the medicinal activity of drugs is increased by subdivision and succussion. While prepared to admit, to a certain extent, the utility of subdivision and the increased rapidity of action obtained thereby, the other idea—that of increased power through succussion—is one unsupported by any known facts in physics or physiology. If we accept the views of modern chemists and physicists, that matter is not infinitely divisible, and accept the asserted weight of the ultimate atom of hydrogen, we find when homœopathic dilutions have reached to about their tenth attenuation that the last molecule of the drug is somewhere in the bottle; but in going to their next higher dilution the chances are just ninety-nine to one it will be kept out of the succeeding vial, and all after that will be well-shaken alcohol with no drug left. It was to escape this obvious dilemma that the dynamization theory was invented. Granting the gradual extinction of the material portions of the drug, Hahnemann claimed that there yet remained a spiritual essence capable of infinite diffu-



sion, which, when stirred up (by shaking), was enabled to produce the most extraordinary results. It is this theory that the homœopaths of the northern part of this State have, in the resolutions referred to, formally abandoned.

#### THE ADULTERATIONS OF SUGAR.

RECENT investigations made by officers of the custom-house in regard to the manufacture of refined sugars, and subsequent careful analysis of samples from some of the largest refineries, have disclosed a system of adulterations which will probably lead to the immediate action on the part of the Board of Health of this city. Adulterations of substances used as food may be considered in the light of being merely fraudulent, or of being deleterious to health, if not absolutely poisonous. The disclosures now made in regard to the adulteration of refined sugar show that both these forms of adulteration have been practised, and that sugar thus manufactured is fraudulently mixed with water and glucose, and poisoned by the addition of such chemicals as the muriate of tin, copper, etc. With the exception of flour, no substance is in such general use as an article of food as sugar and its syrups, and the fact of its wilful adulteration with such a rank poison as the muriate of tin cannot be too strongly denounced.

It appears this secret method of refining sugar was introduced about six years ago, and but recently came into general use. Some refiners are said to employ the muriate of tin both in the vacuum pan and the centrifugal machines, but usually in the latter only. The effect is to improve the color, and to cheapen the cost of whitening from one-quarter to one-half cent. a pound, according to the quality of the raw material. The tin is purchased both in the pig and liquid form, the former being dissolved in hydrochloric acid, and reduced with water to the proper consistency. It is then thrown into the centrifugal machine, which makes 1,500 revolutions in a minute, whitening a sugar that by a natural process would be yellow. This new method raises the drawback to be paid by the Government from 2.08 to 2.48 cents a pound, and for a refinery that produces about 4,000 barrels a day means a fraudulent profit of \$1,125,000 per year from this adulteration alone.

But with the Government loss on the drawback we have no special concern; our province is solely to point out its vital effect on the public health. The refiners propound a theory that the chemicals which fail to neutralize enter into the sugar in such minute quantities that they cannot do any harm. The analyses show, however, very different results; besides, common-sense, as well as the experience of physicians, would at once decide that substances sufficiently powerful to eat the copper from the vacuum-pan can hardly be absolutely harmless.

The sweetening property of glucose compared to

that of cane-sugar is small; its mixture with syrups on that account is to be deprecated as a fraud.

At present the names of those refiners who have been detected in producing adulterated and poisonous sugars have been withheld. We must condemn this practice of making specific charges of adulteration of a particular substance, and withholding the names of the guilty firms. There may be obvious reasons for this course, but it doubtless entails injustice upon many innocent persons, and places the whole business of sugar refinery under a ban of infamy where it may remain for an indefinite period.

We shall watch further developments in this matter with close attention, and trust that our Board of Health will take up the subject, putting in force the State law, which calls for the heavy penalty of \$100 upon every package of sugar that is found to be thus adulterated.

#### BODY-SNATCHING.

It would appear, judging from the accounts of body-snatching in the daily papers, that we are in the midst of an epidemic of the crime that bids fair to spread over the entire country. At first cropping out in Ohio, it extended to Indiana, thence to Connecticut, and now to this State, where the theft of the Stewart body is the crowning sensation of the day. If all the reports are true, the provincial colleges have a hard time in obtaining anatomical material, and the faculties run no little risk in being considered accessories after the fact of the theft. At least it will not be safe for a long while to come, for demonstrators of anatomy to have in their rooms any body or bodies of which they cannot give a good account. There is one reflection which grows out of the contemplation of body-snatching as a trade, and that is the necessity for such laws in the different States as shall formally sanction dissection, and as shall furnish the means for its practice. In fact, the recent grave robberies are the strongest arguments in favor of a liberal anatomical bill for every State having a medical school.

SEWER GAS.—Among the many disorders which may arise from the effluvia of drains and sewers, two have been recently mentioned in the English journals for the first time, viz.: abscess of the cervical glands, and a tendency on the part of ulcerated surfaces to become sluggish and to yield to no ordinary management. Sometimes these ulcers take on a diphtheritoid appearance.

A MILK TEST.—A German paper gives a test for watered milk, which is simplicity itself. A well-polished knitting needle is dipped into a deep vessel of milk, and immediately withdrawn in an upright position. If the sample is pure, some of the fluid will hang to the needle; but if water has been added to the milk, even in small proportions, the fluid will not adhere to the needle.

## Reports of Societies.

### AMERICAN PUBLIC HEALTH ASSOCIATION.

*Annual Meeting, Richmond, Va., Nov. 19 to Nov. 22, 1878.*

(Special report for THE MEDICAL RECORD.)

FIRST DAY—TUESDAY, NOV. 19TH.

The opening session was held this evening. A larger number of members than usual was present. Dr. HARRIS, President of the Association, called the meeting to order, and introduced Governor Halliday as presiding officer for the evening.

The governor delivered an eloquent address of welcome to the convention.

The President of the Association, Dr. ELISHA HARRIS then made his opening address.

He mentioned a number of particulars in which the organization and objects of the Association could be improved, asserted his belief in the possibility of preventing future epidemics of yellow fever, and urged upon the convention the importance of securing legislative help in matters of quarantine.

Dr. WOODWORTH and Dr. STEINER followed him briefly.

SECOND DAY—WEDNESDAY, NOV. 20.

The regular work began with this morning's session. After some routine business Dr. BEMISS read the

#### REPORT OF THE YELLOW FEVER COMMISSION.

Its history and mode of work were first described. This commission consisted of Drs. Bemiss, Cochran, and Howard, with Col. T. S. Hardee acting as sanitary engineer. It was organized Oct. 1st. Its members met at once in New Orleans, and worked there till Oct. 21st. They then set off to examine the other infected localities.

Wherever they went they obtained first the history of the earliest cases, and located their dwellings upon maps which they drew of every town visited. They then investigated the drainage, etc., of the place, and acquired all the general facts possible. Much stress was laid upon the value of the maps of the infected localities. By these is shown at once the situation of the first cases, and also the peculiarity which yellow fever has of spreading in groups, starting from a central point; in this differing markedly from the malarial fevers. The maps, in addition, enable one to study the disease in its relation to drainage, filth, elevation of surface, etc.

The most important part of the report, apart from the concluding generalizations, was its history of the

#### ORIGIN OF THE RECENT EPIDEMIC.

Upon this point, the question of the local or exotic character of the disease largely hinged. A thorough analysis of the first cases was made, and the conclusion reached that the disease was brought from the West Indies, either by a steamship in May or by fruit vessels in June. The epidemic began in the middle of July.

Having established the fact of the importation of the disease to New Orleans, its further spread was easily traced.

As a result of their investigations, they present the following

#### CONCLUSIONS:

*First*—We have not in a solitary instance found a case of yellow fever which we could justifiably consider as of *de novo* origin or indigenous to its locality.

*Second*—In respect to most of the various towns which we visited, and which were points of epidemic prevalence, the testimony showing importation was direct and convincing in its character.

*Third*—The transmission of yellow fever between points separated by any considerable distances appeared to be wholly due to human intercourse. In some instances the poison was carried in the clothing, or about the persons of people going from infected districts. In other instances it was conveyed in such fomites as cotton, bagging, or other goods of the same description.

*Fourth*—The weight of testimony is very pronounced against the further use of disinfectants. Physicians in infected towns, almost without exception, state that they are useless agents to arrest the spread of yellow fever, while some of them affirm that their vapors are seriously prejudicial to the sick.

*Fifth*—Personal prophylaxis, by means of drugs or other therapeutic means, has proved a constant failure. A respectable number of physicians think the use of small doses of quinine of some use in prevention.

*Sixth*—Quarantine established with such a degree of surveillance and rigor that absolute non-intercourse is the result, have effectually, and without exception, protected its subjects from attacks of yellow fever.

#### EVENING SESSION.

Dr. BEMISS gave a detailed history of the fever at several large and small towns in Mississippi and Tennessee. He was followed by Dr. Cochran, who gave similar details in regard to other towns.

These accounts occupied the whole of the evening, and were minute and wearisome.

THIRD DAY—THURSDAY, NOV. 21.

The morning session opened with some very sharp criticisms by Major Walthall upon the tediousness of the detailed reports of the preceding day. He was much applauded and an announcement was soon made that thereafter no paper would be allowed more than twenty minutes.

COL. HARDEE then read his views on the sanitary condition and imperfect

#### DRAINAGE OF NEW ORLEANS.

He suggested the use of additional pumps to assist the drainage and of allowing the water of the river to run through the street gutters during the half of the year in which the Mississippi is higher than the city level. He referred to the fact that the fever at New Orleans prevailed even more violently in well-drained and well-cleaned districts than it did in foul ones.

Dr. CHOPPIN followed. His views coincided with those of the Commission in regard to the origin of the fever and the efficacy of quarantine. He advocated an absolute non-intercourse between New Orleans and dangerous tropical ports during the months from May to September inclusive. He estimated the total loss to the city from the recent scourge to have been over \$12,000,000. The annual loss to trade by closing the port to West India vessels would be \$1,500,000.

Dr. Choppin was opposed to the National Government assuming the



## REGULATION OF QUARANTINE.

First, because of its probable unconstitutionality; and second, because he feared the government officials thus created would be likely to be corrupted by importers. He advocated a united action in regard to quarantine amongst the endangered States.

Prof. J. G. Richardson then spoke upon the

## PATHOLOGICAL HISTOLOGY

of yellow fever. He said that the urine of the fever patients had shown a very rapid degeneration and desquamation of the tubal epithelium. In the kidneys, the tubules and Malpighian tufts were much clogged with small organisms. They were so numerous as to have undoubtedly hindered the excretory process. In the blood, he had uniformly found many dumb-bell bacteria, *B. sanguinis*. His observations led him to conclude that a thorough saturation of the system with an atoxic parasiticide, if such could be found, would be of therapeutical value.

Dr. Richardson's investigations and conclusions were endorsed by Dr. Robert White, of the Marine Hospital service, who followed with a paper on the same subject.

## EVENING SESSION.

At the conclusion of the reading of the Yellow Fever Commission's Report, it had been referred to a special committee of which Dr. J. S. Billings was Chairman. The report of that committee on the

## YELLOW FEVER COMMISSION

was presented this evening.

It approved the commission's work, so far as it went, and endorsed its conclusions, except the one in regard to disinfectants. It, however, urged that their work take a much wider range. It should try to discover the actual *materies morbi*.

In regard to the line of experiment by which such result might be obtained, they suggested that Havana was the most desirable place for the study. Excretions, or fluids, from the diseased should be inoculated in animals. This should be done both directly and after such material had been submitted to various conditions of warmth and heat, or after it had been mixed with other substances. If once a substance is obtained which will produce yellow fever, or any of its characteristic symptoms, this should be thoroughly studied and sifted, and by exclusion the essential element of the disease at length reached. By such process immensely valuable results would be obtained.

The report was signed by Drs. Billings, S. Oakley Vanderpoel, J. G. Thomas, and L. R. Jones.

Papers were read upon "How to Study an Epidemic," by Dr. Ezra M. Hunt, of New Jersey, and upon "Sanitary Responsibility," by Dr. J. G. Thomas, of Savannah.

A resolution was adopted appointing a committee of five to urge upon Congress the necessity of the early publication of the Catalogue of the Army Medical Library.

The meeting then adjourned.

## FOURTH DAY—FRIDAY, NOV. 22.

At the morning session an election of officers first took place, resulting as follows: President, Prof. J. L. Cabell; First Vice-President, Dr. J. S. Billings, U. S. A.; Second Vice-President, Dr. Samuel Chopin; Secretary, Dr. E. R. Jones; Treasurer, Dr. H. B. Baker; and an Executive Committee of six.

The Committee on Resolutions made a report in regard to recommending a plan for a

## NATIONAL QUARANTINE.

While strongly approving of some legislative action in this direction, they did not think that the Association should commit itself to any particular method. They favored the appointment of a committee to take charge of the subject.

The committee on subjects for discussion then presented four propositions to be voted upon in the evening session after discussion. As finally adopted they are as follows:

*First*.—That the yellow fever of 1878 was a specific disease not indigenous to or originating spontaneously in the United States, and its appearance in this country during that year was due to specific causes.

*Second*.—That quarantine, established with such rigor and precision as to produce absolute non-intercourse, will prevent the importation of specific causes of yellow fever.

*Third*.—That it is the duty of the general government to aid in the establishment of practical and proper quarantine by all the means in its power.

*Fourth*.—That it is the duty of the general government to appoint a commission of experts to make a thorough investigation into the causes of yellow fever, and the best method of preventing its introduction into this country, and to make such an appropriation as will permit of the securing of the services of the best men and of the best means for carrying out such an investigation.

*Fifth*.—That it is the duty of the general government to invite foreign nations to co-operate with it in the establishment of uniform and effective international quarantine regulations.

*Sixth*.—That whatever may be the permanent value of quarantine, there is no doubt of the importance and value of internal sanitary measures in the prevention or modification of epidemic yellow fever; and that this association urges upon State and municipal authorities the great amount of responsibility which rests upon them on this account at times when no disease is prevailing or threatening.

A discussion followed the presentation of these propositions, but it was not a very lively one.

The night session began with the election of several new members. The discussion was then renewed and the propositions, as given above, were finally adopted.

A committee of six was appointed to collect data upon which to base an appeal to the medical profession for relief of the widows and orphans of the physicians who died in the late epidemic.

The convention then passed various resolutions of thanks. It voted to meet next year at Nashville, Tenn. At 11 p.m. it adjourned *sine die*.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, October 23, 1878.*

Dr. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

(Concluded from page 396.)

SARCOMA OR ILEMATOMA OF THE BROAD LIGAMENT?  
—FATAL HEMORRHAGE.

Dr. SATTERTHWAITHE presented the uterine, ovaries, and attachments of a patient with the following history:

On September 27th, at about noon, I was suddenly called to meet Dr. J. T. Kennedy, in a case of col-

lapse. The patient, Mrs. M. V., a young woman, of fine physique, was found unconscious, cold, and pulseless. She was breathing very superficially, at long intervals, and was evidently beyond hope of recovery. Alcoholics had been given hypodermically and by the rectum, and they were continued, but without any benefit. The patient, on going to bed, had felt quite well, but in the night had a sinking spell of so alarming a character that Dr. Kennedy was sent for. The sinking spells occurred at intervals during the morning, and all efforts at reaction proved unavailing. She died a few moments after I saw her. The autopsy was performed the next day by Dr. Goldschmidt, the Deputy Coroner, as neither Dr. Kennedy nor I felt that we knew the cause of death, and because there were some circumstances connected with her previous history that made a medico-legal inquiry desirable.

On opening the abdominal cavity, it was found partly filled with blood, mostly clotted, and evidently of recent date, while Douglas's space was completely packed with soft deep-red clots. The blood had penetrated the right broad ligament through an opening that would about admit the passage of a No. 2 English bougie, and had escaped from a nodular body attached to and beneath the ligament, and about one and a half inches from the fimbriated extremity of the tube. The tumor was about the size of a pullet's egg; cutting into it, a thick muco-purulent substance escaped from a small cyst, as large as a filbert in its centre, while round about it was clotted blood, more or less organized, and soft, friable matter. The Fallopian tube did not enter it, but stopped short on either side, where it was occluded.

The uterus was enlarged, soft, and the os was dilated, so as to easily admit the finger; the cavity was empty and covered with a thick velvety material, looking like the decidua, and, indeed, it proved to be so by microscopic examination, as the arborescent villi were readily recognized. Some statements made prior to death made it appear probable that a criminal abortion had been produced. The ovaries were found in good condition, and the parovarium, or organ of Rosenmüller, was not involved. This organ, known as the remains of the upper portion of the Wolffian body, was seen lying above and external to the ovary; the lower part of the Wolffian body, the paro-phoron of Waldeyer, which is said, in the adult female, to lie nearer the uterus, was clearly not involved. Microscopically the friable substance about the cyst might be classed as a sarcoma, that is, it consisted of round and fusiform corpuscles embedded in a homogeneous stroma. Unfortunately, such appearances belong also to a blood-clot that has commenced to organize, and therefore it is difficult, if not impossible, to distinguish between them from the bare microscopic examination. Sarcomas in such situations are rare, if, indeed, any are on record. I should feel more inclined, therefore, to regard it as a cystic hæmatoma of the tube, which is sometimes met with. The origin of the blood in such a situation is difficult to comprehend. It would appear possible that the injection of fluids at the time of the attempted abortion might have produced inflammation in the tube, leading to hemorrhage and the formation of a cyst within the clot, but in this case the cyst was of too old a date to be explained on this theory, and the hæmatoma, if such, too old, for the operation was performed presumably a few days before death. The occurrence of the blood-tumor will have therefore to be explained in some other way. Pelvic hæmatocèles are much rarer, in my experience, than is commonly

supposed. The experience of a good observer, who puts them as occurring in seven out of every thousand autopsies, would agree very nearly comparatively with my own experiences. It may perhaps be satisfactorily explained as having first originated in an inflammation of the Fallopian tube, leading to cystic degeneration and occlusion, the hemorrhagic deposits being formed at various times during the congestion of the parts at the menstrual period. It is interesting to know that in this particular instance the actual cause of the fatal hemorrhage was pretty certainly sexual connection while the parts were in a condition of plethora—in confirmation of two facts that have been previously noticed.

This case is interesting as shedding light in the cause of peri-uterine hemorrhage in which the ordinary recognized causes of the disease were absent.

## Correspondence.

### A TROUBLESOME CASE OF MIDWIFERY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—With your permission I would like to publish the following curious history of a difficult case of labor which happened in my practice about two weeks ago: One night, at eleven o'clock, I was called to see Mrs. R., who was in labor; on arriving I found a strong, healthy woman, a primipara, in the throes of childbirth. I made an examination and found that the waters had escaped, leaving an ordinary vertex presentation, a left occipito-anterior. After an hour's delay, as her pains were very infrequent, I gave her five grains of quinine, which after a short time I repeated. At three o'clock I lay down for an hour and was awakened by the nurse who stated the patient was vomiting violently. I gave her seven minims of Magendie by the mouth, which controlled it. I then made an examination. I found the vaginal secretion was scanty and the anterior lip of the uterus was oedematous. The os was dilated to the circumference of seven inches. The patient had now been in labor for about nine hours. I waited for a pain. I found no retrocession of the head afterwards. The pains were very feeble. My patient's pulse was excessively rapid. I determined to send for my father, Dr. John Burke, and deliver by forceps. He arrived at nine o'clock. I administered chloroform, and after great difficulty, she was delivered of a female child. It expired soon after. Putting my hand into the vagina I discovered the presenting head of another baby. My father promptly turned and delivered it alive. I now waited for the placenta. In vain. I resolved to put my hand up and extract it. I found it very forcibly attached. The uterus was uncontracted, but as I drew out the placental mass I felt it contracting under my hand. Everything appeared well. We had saved the second child, and the mother was in good condition.

I applied a bandage, and stepped into the adjoining room to wash my hands. I was attracted to my patient by a low cry. I ran to her; she waved her hands as if to grasp the air. She was pulseless. I plunged my hand into the pelvic cavity. It was filled with soft clots. Not waiting to turn these from the vagina, I forced my hand in until it reached the uterus, which lay well up, above the superior strait. The uterus was like an old felt hat. I called for ice. Stuck my hand into the uterus and kneaded it from without.



The blood could not pass my hand at the vulva; it acted as a tampon. I packed in ice and the contraction was but feeble. I then called for hot water and a Davidson syringe. I pumped in hot carbolized water into the pelvic cavity, which seemed like a huge cavern, until I felt the uterus contract. I waited until it felt like a ball and then I cautiously withdrew my right arm and hand. I had given her about a pint of brandy and about half an ounce of extract of ergot. I had no assistance but some frightened women. Mrs. R.'s pulse was now faintly perceptible. I had been about forty minutes with my hand in the vagina. I directed small quantities of beef-ten, brandy, and quinine to be administered.

I washed out the vagina twice daily with carbolized water. I directed a sponge constantly kept wet with a disinfectant to be placed over the vulva to catch the lochial discharges. Mother and child are now very well. I cannot estimate the quantity of blood lost, but the clots almost filled a chamber-pot. I gave opium for security, although she had no pain or any signs of peritonitis.

MARTIN BURKE.

147 LEXINGTON AVENUE, Oct. 19th.

## Medical Items and News.

DR. SEATON ON RE VACCINATION.—Generally speaking, the best time of life for re-vaccination is about the time when growth is completing itself, say from fifteen to eighteen years of age; and persons in that period of life ought not to delay their re-vaccination till times when there shall be a special alarm of small-pox. We are strongly of opinion that there would be a great deal more re-vaccination if the family medical man always made a point of drawing the attention of parents to the necessity of their adult children being re-vaccinated. We feel certain that as a rule medical men neglect to do this, little thinking how, by insisting on the repetition of the operation, they have it in their power to starve, and therefore to weaken the force of any future epidemic of small-pox.—*Report to the Local Govt. Board.*

HOMŒOPATHIC RESOLUTION.—The following preamble and resolution was adopted by the Homœopathic Medical Society of Northern New York at their annual meeting held at Saratoga Springs, July 9, 1878:

*Whereas*, The theory of dynamization set forth in the *Organon* has, in the past few years, developed in the homœopathic school a peculiarly extravagant and extremely questionable method of preparing homœopathic remedies, which seems to be clearly without explanation upon any known principle other than that derived from magnetic or psychological forces; and

*Whereas*, The accumulated experience of the past half century has demonstrated that the process of dynamization of medicinal substances, described and recommended in the *Organon* by Dr. Hahnemann, is neither consistent with the principles of the homœopathic school, nor reliable or satisfactory in practice; and

*Whereas*, It would appear that sufficient time and an abundant opportunity has been afforded for furnishing conclusive evidence showing the scientific and practical value of the theory of dynamization of medicinal and non-medicinal substances, if any such curative power existed therein; and

*Whereas*, No satisfactory reasons have been adduced

in support of this fanciful theory, and no trustworthy evidence of its claim for homœopathic endorsement has been furnished; therefore

*Resolved*, That we deem the theory of dynamization to be essentially non-homœopathic, and, while occasionally, from a psychological point of view, it may be appropriately applied in practice, in the opinion of this Society it is still so obscure as to its origin and development, so uncertain as to its application, and has so little apparent connection with the proper application of the principle *similia*, as to warrant the conviction, after repeated and carefully conducted trials, continued through many years, that it is unworthy the confidence of the homœopathic profession, and being non-homœopathic, should not receive the endorsement of the homœopathic school.—*Homœopathic Times*, Nov., 1878.

SUBCUTANEOUS INJECTION OF ETHER.—Chantreuil records four cases of post-partum anæmia wherein transfusion appeared indicated, which were successfully treated by subcutaneous injections of ether and alcohol.

A NEW DIAGNOSIS OF HYDRO-PERICARDIUM.—Dr. T. M. Rotch, of Boston, asserts that an area of flatness in the *fifth right intercostal space, about an inch from the right edge of the sternum*, is a most distinctive sign of pericardial effusion. The flatness on the left side is obscured by that of the heart itself.

COLIC.—The inverted posture—not exactly standing upon the head, but the next thing to it—is a prompt and effectual cure for *flatulent colic*. Time, one to five minutes. Some movement of the gas in the intestine is the cause of the relief afforded.

THE CHICAGO MEDICAL JOURNAL AND EXAMINER for October reports a case of sunstroke with a temperature of 113° F. Rapid recovery followed ice to the groins, axillæ, neck, and head, reducing the temperature to 99.5° F. in an hour.

TINCTURE IODINE A SUBSTITUTE FOR QUINIA.—Dr. Fordyce Grinnell, of the Wichita Agency, Indian Territory, has made an extensive trial of *tr. iodinii* in *malarial diseases* and claims that "*the results have been fully equal to those obtained from quinia*." Dose.—Ten drops, in sweetened water, three or four times a day, for adults.

FOR MOSQUITO BITES.—Rub on the bite a little soap (toilet), then allow a stream of cold water to run upon the part for three or four minutes. The itching is at once relieved and no further annoyance results.—C. J. S. DIGGES, in *Lancet*.

CARBOLIC ACID IN SMALL-POX.—The long discussion carried on in the London *Lancet* has proven: 1. The comparative failure of the internal and external use of diluted acid in aborting the eruption of variola. 2. The need of further investigation in this direction.

ANTISEPTIC SOLUTION OF BENZOIC ACID.—Dissolve half an ounce of pure *acidum benzoicum et resina* in ten ounces of rectified spirit. This may be mixed with water in different proportions for lotions, gargles, mixtures, etc. It is quite agreeable to the smell and taste, is innocuous, is more powerfully antiseptic than salicylic acid, and volatilizes almost as readily as carbolic acid.

DAMAGES FOR IMPERFECT SEWERAGE.—A Rutland (Vt.) man, named Lynch, claims \$40,000 damages from the village for the loss of three children from diseases caused by imperfect sewerage.

**THE TASTE OF SALICYLIC ACID.**—A solution of salicylic acid and borax, each gr. x. to f.  $\frac{3}{4}$  i. has a bitter taste and acid reaction; whereas a solution of ten grains of the former and *fifteen* of the latter to the ounce has no disagreeable taste, and is nearly neutral, and is just as valuable therapeutically.

**ACNE VULGARIS.**—Dr. Howard Kane, of London, recommends the use of calcium sulphide in doses of one-fourth grain thrice daily, gradually increased to six grains a day, for the cure of *acne vulgaris*. He reports sixteen cases, thirteen perfectly cured, the other three greatly benefited. The remedy must be taken some weeks or months to secure a cure.

**ERYSIPELAS.**—Prof. Hueter reports (*Berlin. klin. Wochn.*, No. 24, 25, 1878) seventeen successful cases of erysipelas treated by subcutaneous injection of carbolic acid. Details in translation are to be found in the *Med. Times and Gazette*, Sept. 7, 1878.

**SALT IN EMPYEMA.**—M. Houzé D'Aulnot, of Lille, recommends (*Progrès Médical*) the use of *solutions of common salt*, from one to ten, one to five, to those which are saturated, for washing out the pleura, in empyema, and abscesses.

**LICHEN URTICATUS.**—A writer to the *Lancet* recommends the following treatment for obstinate cases of this affection: milk of sulphur, 2 oz.; hyposulphite of soda, 1 oz.; dilute sulphuric acid,  $\frac{1}{4}$  oz.; gelatine or patent size, 2 lbs.; to be well mixed with a pint of warm water, and added to a *tepid* bath, in which the patient should remain an hour, twice weekly. In addition, let an ointment of hydrochlorate of ammonia, 20 grs., to an ounce of benzoated lard, be applied daily.

**THE LATE MR. SIMON.**—THE Royal College of Surgeons of England have just come into possession of a marble bust of the late Mr. Simon, F.R.S.

**ERGOT IN POLYURIA.**—Ergot has been very useful in the treatment of *polyuria* (diabetis insipidus). Given in doses of half a drachm of the fluid extract thrice daily, gradually increased to one and two drachms equally often, it is said to have permanently cured the complaint.

**ELECTRICITY IN NEURALGIA.**—As a guide to the proper current indicated in the various forms of neuralgia, Dr. Rockwell says: "I find the effects of pressure are exceedingly useful. I would not lay it down as a law, but it will be found, in the great majority of cases of neuralgia, where firm pressure over the affected nerves aggravates the pain, the galvanic current is indicated, while the Faradic current has the greater power to relieve when such pressure does not cause an increase of pain."—*Med. and Surg. Brief*.

**CHLORAL IN RETENTION OF URINE.**—In a case of retention of the urine for twenty-four hours in a case of pregnancy, wherein catheterism had failed, Tidd gave two ten-grain doses of chloral at a half hour's interval, with the effect of producing profound sleep and the spontaneous passage of an enormous quantity of urine.

**A NEW BATTERY.**—An Italian professor has arranged a new battery in which a solution of sulphurous acid is substituted for the usual liquids. The zinc is dissolved without the least development of hydrogen. It is claimed his battery acts well, and gives a very strong current.

**AMERICAN MICROSCOPES.**—Prof. J. Gibbons Hunt, M.D., of Philadelphia, one of the most experienced

microscopists in the country, says it is affectation or stupidity for Americans to send to Europe for microscopes, when they can purchase better ones at home.—*Med. and Surg. Reporter*.

**CHRONIC VARICOSE ULCERS.**—Wash with an eight per cent. sol. of zinc chloride, then cover with *wet* borax lint, and over the latter spread gutta-percha tissue. When healthy granulations appear, cover the surface with *dry* borax lint, without the impermeable covering. This is said to give excellent results.

**ELASTIC ADHESIVE PLASTER** is prepared by Dr. W. P. Morgan, of Baltimore, Md., by giving india-rubber tissue or sheeting a coating of plaster, made by mixing together lead plaster, 1 lb., and resin, 6 drachms. It is an excellent covering in cases of psoriasis, intertrigo, eczema, etc., and its elasticity makes it invaluable in securing the coaptation of incised wounds, and in the treatment of abscesses.

**A CHEAP DISINFECTANT AND DEODORIZER.**—Dissolve a drachm of lead nitrate in a *puiful*, and a drachm of common salt in a *jugful* of *soft* water, and mix the two solutions. Soft water is essential, on account of preventing the formation of an insoluble carbonate of lime and lead. Dip rags into the solution, and hang them up in the offensive room, or pour some of the mixture upon excrements, or down the privies or sinks. This is of ordinary strength, but the solution may be made stronger if desired. If carb. lead and lime form, pour off the clear liquid and use none of the sediment.

**CHLOROFORM POISONING AND TREATMENT.**—Prof. J. A. Larabee successfully treated such a case with gr.  $\frac{1}{16}$  digitaline, hypodermically, the dose repeated in one and a half hours. A little later gr.  $\frac{1}{16}$  atropia was given hypodermically. Four hours from the time the doctor first saw the patient both pulse and respiration had recovered their tone.

**VERATRUM VIRIDE IN PUERPERAL ECLAMPSIA.**—Two to four drops of the tincture, given sufficiently often to keep the pulse at sixty, was a successful treatment in four cases reported by Dr. J. W. Griggs.

**THE VOMITING OF PREGNANCY.**—Lubelsky has given almost immediate relief in the *vomiting of pregnancy* by spraying ether over the epigastric region and corresponding portion of the spinal column. Continue for three to five minutes, and repeat every three hours.

**PELVIC EXUDATIONS—REMOVAL OF.**—Prof. Briesky has caused pelvic exudations to be rapidly absorbed by frequently painting the mucous membrane of the cervix uteri and vagina, and the abdomen (pelvic) with tr. iodine. We would recommend that the ordinary tincture be diluted one-half with alcohol.

**DEATH FROM CHLOROFORM.**—Another death has occurred in Great Britain from the administration of chloroform. (*British Med. Jour.*, Oct. 19.) The patient was a female, aged 38 years, who injured her arm by a fall several weeks previously. An examination at a dispensary revealed the existence of an unreduced dislocation of the elbow. For the treatment of the latter she was admitted to the Whitworth Hospital, Drumcondra. In order that the inflammatory adhesions might be broken up chloroform was administered. The heart had been previously examined and pronounced healthy! Death occurred suddenly. The autopsy revealed a fatty heart. The amount of chloroform used was forty drops.



**THE YELLOW FEVER FUND AND THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.**—At the regular meeting of the Medical Society of South Carolina, held Oct. 1, 1878, the following were unanimously adopted:

*Resolved*, 1. That the action of the Medical Society of the County of New York in raising a fund for the aid of the families of physicians who have fallen or may fall victims to the epidemic of yellow fever now prevailing, meets with our warmest approval, and calls for our earnest co-operation.

*Resolved*, 2. That a committee be appointed composed of the officers of this Society, to solicit contributions from our members and the members of the profession generally, or from any other persons who may be disposed to aid in this noble charity.

*Resolved*, 3. That the funds so raised, as also a copy of these resolutions be forwarded as soon as practicable to the President of the Medical Society of the County of New York, Dr. John C. Peters.

*Resolved*, 4. That these resolutions be published in the *Charleston News and Courier*.

W. H. BAILEY, M.D.,

Secretary of the Society of South Carolina.

Dr. M. POLANO, Professor of Medicine, died in the Hague on the 27th of September.

**POISONING BY CANNED CORNED-BEEF.**—An entire family in Grensbaach, Germany, was recently seized with symptoms of severe poisoning after eating some American corned-beef. Metallic poisoning is suspected, and an official investigation has been ordered.

**FIVE CHILDREN AT A BIRTH.**—A woman in Lägerdorf, near Kiel, Germany, was delivered of five living children, three boys and two girls, on September 29th. One of the children died on Oct. 1st, but the other four are doing well.

**TREATMENT OF MERCURIAL SALIVATION.**—Dr. Stynap treats mercurial salivation by small doses of sulphur combined with a little opium or morphine. The following is his formula: R Sulphur. precip., grs. xxij.-xlv.; Potass. chlorat., grs. xlv.-5j.; morph. muriat., gr. iss.; emuls. amygdal., 5ix. M. Tablespoonful every three or four hours. This is continued until diarrhœa sets in.

PROF. HASSE, of Göttingen, has been relieved from active duty, at his own request, on the score of age and infirmity.

**HYRTL'S HAND-BOOK OF ANATOMY.**—The fourteenth edition of Hyrtl's celebrated Hand-book of Anatomy has just appeared.

**NEW HUNGARIAN UNIVERSITY.**—It is said that a new Hungarian University will be established in Pressburg.

**UNMARRIED MOTHERS.**—The Council General of Marseilles has adopted the report of M. Delibee, recommending to the benevolent attention of the government a proposition of the Marseilles Society for the Protection of Infancy, to the effect that in one hospital in each department a special ward be set apart for the reception, under the seal of secrecy, of unmarried girls who have had the misfortune to become pregnant. The report states that similar institutions are in operation in Rome, Vienna, Prague, and Berlin, where they have proved very successful.

**MEANS OF RELIEVING PAIN IN CANCER OF THE UTERUS.**—Dr. Lawrence, of Bristol, states that ergot in doses of 20 grains every six hours relieves in a striking manner the pains of cancer and epithelioma

of the uterus. It calms the violent pulsations that ordinarily yield only to exhausting hemorrhages. It seems to act by diminishing the afflux of blood to the uterus. Another valuable remedy is the cotton of chloral-hydrate. It does not act in the seat of the disease itself, but it relieves the radiating pains into the hips, thighs, and groins. As a local application, Dr. Lawrence employs carbolic acid, which he applies by means of a speculum and a tampon of wadding, and by injections of carbolated glycerine (3 ss.) and water (5 viij.).

**ALCOHOL, INSANITY, AND SUICIDE.**—From statistics gathered by Dr. Lunier, it appears that the consumption of alcohol in France, which was 1.09 litre per capita in 1831, had risen to 2.84 litres in 1873. The cases of insanity of alcoholic origin had increased in the same proportion: of the lunatics admitted into the asylums in 1838, the malady could be ascribed to alcoholism in 7.067 per cent., while from 1874 to 1876 the proportion was 13.94 per cent. In 1849 the proportion of suicides attributed to occasional excesses or to habits of drunkenness was 6.69 per cent.; in 1876 it was 13.41 per cent.

**EXPULSION OF A FOREIGN BODY FROM THE ESOPHAGUS BY MEANS OF APOMORPHINE.**—M. Veiger reports the case of a child who swallowed a prune-pit that stuck fast in the esophagus. Ipecac was administered, but did not produce emesis. As the proper instruments for the removal of the foreign body were not at hand, two subcutaneous injections of apomorphine, altogether  $\frac{1}{2}$  gr., were administered. Vomiting soon set in, and the pit was expelled. The child presented subsequently no unfavorable symptoms.—*Lyon Médical*.

**ON THE EMPLOYMENT OF LISTER'S METHOD IN THE TREATMENT OF BURNS.**—The burned part is to be carefully disinfected, and then covered with a piece of linen spread with Lister's boracic acid. Then follows the envelopment with carbolized gauze or salicylic cotton. According to H. Busch of Bonn, under this dressing the necrosed parts are separated, move gradually and easily, and the granulations never become exuberant. The most striking results, however, are seen in the cicatrix. Instead of the usual extensive cicatricial bridges which project above the surface and exert traction on the neighboring tissues, an almost smooth cicatrix forms, which remains elastic and extensive, and does not cause contracture.—*Centralblatt f. d. Med. Wissen*.

**SALICYLIC ACID AS AN ANAPHRODISIAC.**—This fact was asserted not long ago by Dr. C. T. Jewett, and has had recent confirmation in the case of a New York city veterinary surgeon, whose patient had been taking soda salicylate for some time. Damiana restored the sexual appetite promptly.

**CORK WOOD.**—Australia gives us another valuable medicine, namely, the leaves of the cork wood (*Duboisia myoporoides*), from which an extract is yielded having similar (though more speedy) action to belladonna.

**TREATMENT OF GOITRE BY ERGOTINE INJECTIONS.**—Dr. Flashar reports the case of a seventeen-year-old peasant girl, who suffered from a large struma vasculosa, together with exophthalmus and occasional palpitations. Subcutaneous injections of ergotine were first tried without effect, and the drug was then injected into the parenchyma of the goitre. After three injections (each  $\frac{1}{2}$  of a Pravaz syringe-ful) the tumor disappeared entirely, and though years have since

elapsed it has not recurred. After the first injection a throbbing headache set in, which was confined to one side, and was accompanied by a feeling of intense heat in the corresponding side of the head, ear, and cheek, and by redness of these parts. These symptoms must be ascribed to a temporary paralysis of the sympathetic, which seems remarkable in view of the fact that ergotine contracts the blood-vessels.—*Centralblatt f. d. Med. Wissen.*

**TREATMENT OF HYSTERICAL REFLEX-NEUROSES.**—Prof. Weber recommends the protracted employment of chloroform inhalations in the treatment of obstinate and severe cases of hysterical reflex-neuroses, of the respiratory apparatus, when the primary seat of irritation cannot be discovered and treated. He has himself proved the value of the inhalation in several cases. His first case was a lady with a spasmodic cough, that had proved rebellious to all treatment; she was cured in eight days by the chloroform inhalations, which were administered as often as the cough came on. A child with sneezing spasms was cured in three days by the chloroform. Another lady with a spasmodic cough was treated with the same remedy for fourteen days, the inhalations being administered at first four or five times, and afterwards two or three times daily. She was much improved; the cough only came on after a walk, and the inhalations were only required then. In four weeks she was discharged cured; a subsequent slight relapse was cut short by the internal administration of chloroform. In the case of a girl, fourteen years of age, who suffered from spasms of sneezing, the inhalations produced a speedy cure.—*Memorabilien.*

**A CASE OF ACUTE CARBOLISMUS.**—Dr. Oberst reports the case of a convalescent in the surgical ward of the Augsburg hospital, who was given instead of bitter-water, six ounces of a five per cent. watery solution of carbolic acid. Three minutes after the dose was swallowed Dr. Oberst saw the patient; he was then unconscious, his face was covered with a cold clammy sweat, and his mouth was firmly closed. By means of a stomach-pump about five ounces of fluid, smelling strongly of carbolic acid, were drawn from the stomach, which was then washed out thoroughly with several quarts of water. The patient then regained consciousness. The urine had a grayish-brown color for one day only. Strange to say, a cystitis, from which the patient was suffering, improved markedly under the influence of the carbolismus.—*Centralblatt f. Chirurgie.*

**HOSPITAL LIBRARIES IN PARIS.**—Three of the Paris hospitals are in possession of libraries for the use of the patients, which were established with funds bequeathed for the purpose by Dr. Ernest Godard, a former hospital interne, who died in Jerusalem in 1862. As these libraries have been found to fill a much needed want, two brothers of the deceased physician have determined, as a mark of respect to his memory, to establish a similar library in the new Hôtel Dieu, in Paris. The necessary funds for the undertaking have been deposited in the hands of Dr. Passant, Dr. Godard's executor.

**ARSENIC IN PAPER CIGAR-HOLDERS.**—Prof. Jäderholm, of Berlin, has discovered arsenic in dangerous quantities in the pasteboard cigar-holders that are much used at present in Germany. The poison was found in the form of Schweinfurt green, not only in most of the holders which were colored green on the outside, but also in the inner layer of paper in holders which were externally of different colors. The

professor earnestly warns smokers against the use of these holders, as the poison they contain is brought into the closest connection with the buccal mucous membrane and the saliva, and thus finds its way into the blood both from the mouth and the stomach.—*Allg. Med. Cent. Zeit.*

**A FATAL PRESCRIPTION.**—A woman died recently in a small town of Thuringia, of an overdose of opium, which was administered on a physician's prescription. In prescribing laudanum he had neglected to put the sign "gtt." beside the figure "15," and the druggist's apprentice had put up 15 grammes (nearly half an ounce) instead of 15 drops. The physician, the druggist, and the apprentice were indicted for having caused the death of the woman by negligence, and the first was condemned to one month, the second to two months, and the third to three months' imprisonment.

**TREATMENT OF OBESITY BY ARSENIC.**—Dr. J.T. Whittaker states that he has employed arsenic with success in the treatment of four cases of obesity. One case was so severe that the patient fainted on the slightest movement; he had gained forty pounds in three months. He had no valvular lesions and had never had rheumatism. After the failure of all other methods of treatment, he was put on five drops of Fowler's solution three times a day. In two months he was restored to health, could walk well, and had lost much of his *embonpoint*. In the three other cases, two of which were complicated with asthma, the effect was also decisive but less rapid.—*Cincinnati Lancet.*

**DR. ERNST REISSNER**, Emeritus Professor of Anatomy in the University of Dorpat, died on September 4th, in the castle of Ruhenthal, Curland, after long and severe suffering. He was widely known as a writer on Histology and Comparative Anatomy.

**AN ARABIAN PROVERB.**—"The world is sustained by four columns: the justice of the great, the prayer of the good, the valor of the brave, and the science of the doctor."

**BROMIDE OF POTASSIUM AS A DIURETIC.**—In the case of a gendarme suffering from albuminuria and uræmic convulsions, Dr. Sobier administered bromide of potassium in doses of 30 to 45 grains. Free diuresis was produced, between two and three quarts of urine being passed in one night, and the albumen which was previously present in large quantities, disappeared entirely. In three other cases the bromide produced similar diuretic effects. Its diuretic action is exerted on healthy persons also.—*Centralblatt f. Chir.*

**THE JEWS IN HUNGARY.**—In the Hungarian Chamber of Deputies, a M. Istrezy recently delivered a long address on the subject of the dangers which menace the Magyar nationality from the side of the Jews. There are at present 710,000 Jews actually residing in Hungary, and, according to M. Istrezy, they are increasing at a rate which would make their numbers 1,100,000 in 1900, 2,200,000 in 1930, and 17,600,000 in 2020. One cause of the rapid increase of the Jewish race—still according to M. Istrezy—is to be found in the fact that the cholera spares the Israelites, while it scourges the Christians. Even the *black pest* of 1348 left the former almost untouched, while it swept off the latter in swarms. Whatever may be thought of M. Istrezy's statements, it is certain, from comparative statistics, that the Israelites bid fair soon to become the most numerous class in Poland, Hungary, Roumania, and most of the Danubian nationalities.



## Original Lectures.

## LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

By JOS. C. HUTCHINSON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON-IN-CHIEF TO THE BROOKLYN ORTHOPEDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

## LECTURE II.

THE causes of club-foot have been a subject of considerable controversy, but the scope of these lectures and the strictly practical character which I propose to give them, will not permit an extended notice of the various theories that have been propounded to explain the etiology of this deformity. The question is one of scientific interest rather than of practical importance. If I may be permitted to advance an opinion, I should say that both the congenital and acquired forms of talipes depend upon some irritation of the cerebro-spinal centres causing convulsions in the fœtus as well as in a newly born child, which result either in muscular contraction or motor paralysis. There is, however, this marked difference, that in the congenital form there is, in a majority of cases, spasmodic muscular contraction and in the non-congenital cases there is nearly always paralysis of certain muscles or groups of muscles; in the former also fewer muscles are involved than in the latter.

Many orthopedists favor the theory that congenital deformities of the feet depend upon malposition and pressure of the fœtus in utero, while mothers delight to refer physical imperfections in their offspring to the influence of material impressions, and midwives narrate such cases with circumstantial evidence of astounding conclusiveness.

Congenital talipes is often hereditary, and numerous cases might be cited in which mothers have given birth to several club-footed children, and in many cases the hereditary tendency has existed even through several generations. The following illustration, which probably gave rise to a serious domestic trouble, is one of a number furnished by Lanneogue (*On Congenital Club-foot, Paris, 1869*):

"5th Observation.—The case related by Bruckner was attended with unpleasant circumstances: Vannier is club-footed, his wife is not; their first three children were club-footed, the fourth was not; Vannier accuses his wife."

It is an interesting fact, which cannot be satisfactorily explained, that the number of cases of club-foot is much greater among males than among females, while the two feet are liable to be attacked with nearly equal frequency.

In some cases of talipes certain complications are found to exist which also demand attention. The inversion of the toes in talipes varus does not always depend upon the malposition of the foot in the transverse tarsal articulation. In the knee-joint we sometimes find a great laxity of all the ligaments, and the knee can be bent in any direction with great facility. In consequence of this, the leg turns inward as well as the foot in the act of walking, and this continues even after the foot has been returned to its normal shape. This complication should be noticed and attention called to it at the commencement of the treatment, for it renders the after-treatment tedious and

troublesome. Some cases are also complicated by an extreme rigidity of the ligaments of the knee, a rigidity so great that the leg is fixed in one posture and can neither be flexed nor extended. These conditions should not escape the surgeon's attention, for they materially modify the prognosis and duration of the treatment.

In regard to the prognosis in talipes, you must also remember that the severity of the case depends not so much upon the degree of the deformity as on the resistance offered to the restoration of the foot by manipulation to its proper form and normal position. In some apparently severe cases the distortion is easily overcome by manipulation, whilst others, presenting the same grade of deformity, are much more rigid and unyielding.

## TALIPES VARUS.

I will now consider the different forms of club-foot, beginning with congenital talipes varus, the variety of club-foot most frequently met with at birth, and that which has received the largest share of attention from orthopedic surgeons. Talipes varus consists in the adduction of the foot by the tibialis anticus, the raising of its inner border, the semi-rotation of its inner half by the action of the tibialis posticus, and the elevation of the heel by the muscles of the calf. This is the ordinary type of the deformity, but there are several grades of distortion which are characterized by the extent of the deviation of the foot from the normal position.

In the mildest grade of varus, which is compara-



FIG. 5.

tively rare, there is only a slight inversion of the anterior part of the foot, and the heel is not materially elevated. This variety is well illustrated by these casts (Figs. 5 and 6). But the grade which is ordi-



FIG. 6.

narily seen is shown in this cast (Fig. 7). The elevation of the heel, you observe, is more decided; the

anterior part of the foot is turned inward, so that it forms a right angle with its normal axis, the sole is turned backward and the dorsum directly forward,



Fig. 7.

placing the inner border of the foot upward and the outer border downward. The inner malleolus is almost obliterated; the external, on the contrary, is more prominent than natural, and seems to be placed behind and below its usual position. A still more exaggerated degree of distortion is illustrated by this cast (Fig. 8); but fortunately this degree of deformity is not often



Fig. 8.

met with. The inner edge of the foot, you see, is drawn upward, so that the navicular and internal cuneiform bones lie in contact with the inner ankle, and the toes are turned directly upward; the dorsum of the foot is directed forward, the heel is drawn up; there is often rigid contraction of the plantar fascia, which produces shortening of the foot, and a deep transverse depression in the sole.

Where a club-foot has been used for some time in walking, the pressure of the weight of the body produces important consecutive changes. The weight of the body, instead of being transmitted through the arch of the foot, which is so beautifully designed by nature to receive it, is thrown upon the external border, and in the severe cases the child walks even on the dorsum of the foot, owing to the doubling into the sole of the fourth and fifth metatarsal bones. A soft cushion of fat and cellular tissue is formed on the back of the foot, which enables the weight of the body to be borne with comparative ease and comfort. The ankle-joint and the joint between the bones of the foot become stiff from disuse, on account of the rigidity of the tendons and ligaments which connect them together. The narrowing of the transverse arch of the foot produces a well-marked longitudinal

furrow in the sole, which terminates at the junction of the middle with the posterior part of the foot ("the transverse tarsal articulation") in an obliquely trans-



Fig. 9.

verse depression. These depressions are absent or are but slightly marked in non-congenital cases. The



Fig. 10.

casts before you illustrate the appearance of the deformity (Figs. 9 and 10).

#### ANATOMY OF CONGENITAL TALIPES VARUS.

The appearances presented on the dissection of a case of varus depend on the degree of the deformity and the age of the subject. In all cases, however, the structures which enter into the composition of the limb undergo degeneration from want of proper use. The *bones* become lighter and the limb is often shortened to the extent of half an inch or an inch. The *ligaments* become adapted to the altered position of the bones. The *muscles* atrophy little by little, and they remain small even after the limb has been restored to its normal form and the functions of the muscle restored.

In the severe forms of varus important deviations from the natural form and position are observed in some of the tarsal bones. This is especially noticeable in the *astragalus*, the *os calcis*, and the *os naviculare*. The astragalus assumes an oblique direction downward and forward; its superior articulating surface becomes almost vertical, so that only the posterior two-thirds are in contact with the articulating surface of the tibia. The anterior third can be felt on the dorsum of the foot, covered only by the elongated capsular ligament of the ankle-joint and the skin. Owing to the displacement of the scaphoid bone inward, the outer portion of the anterior articular head of the astragalus can be felt on the dorsum of the foot; the external articular facet is in close contact with the fibula, the internal is imperfectly developed, and its contact with the inner malleolus is



slight and imperfect; the neck is turned inward, and it is this obliquity chiefly which gives the characteristic inversion of the foot that distinguishes the deformity. The astragalus has no muscle inserted into it or taking its origin from it. The changes in form and position which it undergoes take place as a consequence of the mechanical forces operating on the other two principal bones of the foot, to which it is accurately fitted, and whose movements it must follow. The os calcis likewise occupies an oblique, and in aggravated cases nearly a vertical position, from the elevation of its tuberosity by contraction of the triceps muscle; the tuberosity is inclined towards the fibula, and in severe cases is found in actual contact with it. The anterior extremity is directed obliquely forward and inward. The bone sometimes becomes arched in its long axis, the convexity being directed outward. The *scaphoid bone* is drawn forcibly inward and upward, so that its tuberosity lies immediately under and in contact with the inner malleolus, and its long axis is parallel with the long axis of the astragalus and also of the leg. The position of this bone has the greatest influence in determining the grade of the deformity. The other tarsal bones, viz., the *cuboid* and the *cuneiform*, remain very nearly in their normal positions—they are directed inward to correspond with the inclination of the os calcis and navicular bones. In adult cases of club-foot, however, the cuboid bone becomes prominent on the dorsum of the foot, which is turned downward, and supports the weight of the body in walking. The *muscles* chiefly concerned in producing congenital talipes varus are those of the calf of the leg and the tibials. These are rigidly contracted, while the peronei and the extensor longus digitorum are lengthened and kept on the stretch. By far the most powerful of these muscles, and the most important in the production of the deformity, is the triceps surae, consisting of the gastrocnemius soleus and plantaris, which, through the tendo Achillis, has a common insertion into the tuberosity of the os calcis. It has been shown by the experiments of Duchenne (de Boulogne\*) that the action of the gastrocnemius and soleus muscle is first, to extend with great force, not merely the posterior part of the foot, but also the external half of the anterior part; and second, the moment the astragalus reaches its extreme point of extension, the muscle causes the os calcis to glide on the articulating facets on the under surface of the astragalus in an oblique direction from behind forward and from within outward. This slipping of the os calcis on the astragalus produces a double movement of rotation of the os calcis on its greater axis, and on the axis of the leg, causing adduction of the foot and the turning outward of its dorsal surface. The triceps sura is, therefore, "an extensor adductor," and each one of you can demonstrate this double function of the muscle by applying the poles of a Faradic battery over its course. You will observe that the contractions of the muscle under the influence of the electric current produces, first, extreme extension of the foot in its tibio-tarsal articulation; it then rotates it, so that its point is directed inward and the heel outward; at the same time it is turned on its antero-posterior axis, its external border is still further lowered, while the inner border is elevated. The result is, the sole of the foot faces inward. You can now understand that the permanent contraction of the triceps sura is sufficient of itself to produce slight cases of talipes varus. The *tibialis posticus* muscle, which is inserted with the scaphoid bone, and the

*tibialis anticus*, which has its insertion into the internal cuneiform and first metatarsal bones, by their contractions lift the inner border of the foot and rotate it inward, and thus become powerful agents in the production of the deformity. The *tibialis posticus* is sometimes so much contracted that its tendon is forced out of the groove behind the internal malleolus and is situated on the outer side or even in front of this process; and, instead of running obliquely downward and forward towards its insertion into the navicular bone, as in the normal foot, it passes directly downward from the inner malleolus to its insertion into the displaced navicular bone. (Adams.) It is important to bear in mind these altered relations of the tendon when it is to be divided. The tendon of the *tibialis anticus* muscle, at the point where it is usually divided, as it crosses the ankle-joint, is very much displaced inward. The *ligaments* which bind together the different bones of the foot, and in some cases the plantar fascia, especially its inner portion, contribute materially to keep up the deformity and to resist the reduction of the foot to its normal position. When the foot has been for a long time in a deformed position and its motions have been greatly restricted, the ligaments and aponeurosis adapt themselves to the altered position of the bones. The ligaments become shortened on the contracted side and lengthened on the convex side of the deformity. In some severe cases the ligamentous adaptation and contraction is so firm on the concave side as to resist the efforts to restore the foot to its normal position, even after all the contracted tendons have been divided. Langenbeck says that it is not the muscles that offer the greatest resistance, but the ligaments and the contraction of the connective tissue. In some cases—those that originate at an early period of uterine life—there is not merely a mechanical resistance to the reduction of the deformity, but there is also an elastic power in the different tissues which is more marked in the contracted ligaments than in those which have been overstretched. This is one of the most frequent causes of relapses in conducting the treatment of this deformity. The mechanical forces to be overcome are, you will please remember, the contracted muscles of the leg, the contracted ligaments on the concavity of the foot, and in some cases the shortened plantar fascia.

## TRANSFUSION OF MILK VERSUS TRANSFUSION OF BLOOD.

CLINICAL LECTURE DELIVERED AT CHARITY HOSPITAL, NOV. 9TH.

By JOSEPH W. HOWE, M.D.,

CLINICAL PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

### LECTURE I.

(Reported for THE MEDICAL RECORD.)

TRANSFUSION OF MILK IN EXHAUSTION FROM EXCESSIVE HEMORRHAGE—TRANSFUSION OF MILK IN PHTHISIS—EXPERIMENTS UPON ANIMALS.

GENTLEMEN:—Transfusion of milk is becoming a fashionable operation. It is said that its effects are just as good as those obtained from blood. It is recommended by some of our principal men as a substitute for blood, in all cases where the vital forces are lowered by severe hemorrhages, or debilitating diseases. The operation, however, has yet to run the gauntlet of professional criticism and professional

\* D'Electrization Localisée, par Duchenne (de Boulogne) Paris, 1861.

jealousy before it can be generally adopted in cases where transfusion of blood was formerly tried.

Although I have used milk in transfusion several times, and was the first in this country to employ it as a substitute for blood, I have not yet made up my mind as to its efficacy. It may possess all the restorative powers claimed for it, but I confess to some doubts on the subject, which I hope to remove or confirm during the present course by a critical and careful comparison of the effects of milk and blood in transfusion. I will operate sufficiently often to determine positively whether milk is equal or inferior to blood. You will all have an opportunity of witnessing the peculiar results of each injection, and will also be kept informed of the results of every operation.

In order that you may study these effects intelligently, I will give you, in a few words, the results of previous experiments made by myself and others, to determine the value of milk in transfusion.

In 1850, Dr. Hodder, of Toronto, treated three cases of Asiatic cholera by intravenous injection of milk. The patients were in the stage of collapse; one died and two recovered. Dr. H. considered the recovery to be due solely to the injection of milk, which not alone diluted the thickened blood, but furnished nutriment to sustain the failing strength.

The operation was not performed again until the year 1873, when I performed it in Charity Hospital, on a patient suffering from tubercular disease of the stomach and mesentery, which prevented him from retaining either solid or liquid aliment. He was in a very low condition when I first saw him, literally starving to death. It was evident to all who saw him that he would last but a few days. I intended using blood in the case, but not being able to obtain any for the operation, I procured some goat's milk in the city and had it carried over to the hospital. I opened the cephalic vein of the left arm and injected about four ounces of milk. The operation was attended by vertigo, dimness of vision, twitching of the eyeballs, and dyspnoea. On the evening of the same day the house-surgeon injected four or five ounces more. The milk used by him had been in the ward all day. I wish you to remember this fact, as it has some bearing on certain other experiments which will be spoken of hereafter. The morning following the operation I saw the patient again. He said he felt better, but I could see no improvement. There was nothing whatever in his condition to justify another operation. Death took place on the fourth day.

In 1875, Prof. T. Gaillard Thomas removed a large ovarian tumor from a patient in Brooklyn. Some days after the operation she had several severe hemorrhages from the uterus, which brought her to death's door. She was sinking rapidly when Dr. Thomas saw her. He determined to transfuse milk. Accordingly, eight ounces of fresh milk, not more than five minutes from the cow, were injected into the median basilic vein of the moribund patient. To make the story short, she recovered rapidly, and six weeks from the date of the transfusion she was able to go about and attend to her ordinary duties. Prof. Thomas attributed the recovery to the restorative influence of the injected milk.

On learning of this exceedingly interesting case from Dr. Thomas, I concluded to renew my experiments in the same direction, and a day or two after I operated on a patient in the last stage of phthisis in St. Francis. In this case I opened the internal saphenous vein of the right leg, and injected six ounces

of milk which had been taken from the cow three hours previously, and which seemed perfectly pure and sweet. During the operation the patient complained of intense pain in the lumbar region, his eyes twitched from side to side (nystagmus), and towards the last his respiratory movements were spasmodic and difficult. All these unfavorable symptoms disappeared in a few minutes, and the patient walked down stairs to his ward. He seemed to have suffered nothing from the operation in any way. Four hours afterwards, however, he became comatose, and died at 4 p.m., five hours after the transfusion. A post-mortem examination was made, but no cause for the coma was discerned. There were no clots in the heart, great vessels, or lungs. There was no indication that the injection of milk had caused death. Both lungs contained large cavities.

After this I repeated the operation on several dogs, with peculiar results. The milk injected into the veins of these animals was about two hours old. It seemed, as in the previous case, to be perfectly fresh and sweet. It gave no evidence of any abnormal change.

Dog No. 1 was a poor, ill-fed animal. Eight ounces of blood drawn from the femoral artery sufficed to produce syncope. Before consciousness returned, seven ounces of cow's milk were injected into the femoral vein. The passage of the liquid into the circulation caused irregular and gasping respiratory movements, and *nystagmus*. These symptoms, however, disappeared in a few minutes. The pulsations of the heart grew stronger, and a small quantity of blood having a whitish color escaped from the cut end of the femoral artery. This showed plainly that the milk had passed through the pulmonary capillaries into the general circulation without difficulty. After ligation of the artery, the dog was removed from the table. Death occurred seven hours after the operation. No post-mortem examination was made.

No. 2 was a large, well-fed slut. She was placed under the influence of chloroform, and the femoral artery was cut. Eleven or twelve ounces of blood escaped before the heart's action was noticeably affected. Eight ounces of milk were injected as before, accompanied, too, by the same difficult respiratory movements and twitching of the eyes. The animal recovered in a short time, and was able, with a little assistance, to get off the operating table. Death took place ten hours after the operation.

A post-mortem examination showed that the lungs were extremely pale and anæmic. No clots were found either in the pulmonary artery or lungs. The heart was firmly contracted, and contained a small quantity of dark blood in a fluid state.

No. 3 was a small but vigorous black and tan dog. Chloroform was administered, and the femoral artery cut. Eleven ounces of blood came away before the current ceased. Six ounces of milk were injected. During the injection the respiratory movements almost ceased, and the respiratory sounds heard on auscultation were very loud and harsh. Death took place ten minutes after the operation. A post-mortem examination was made immediately. The lungs were pale and contained neither blood nor milk. The heart was contracted, and the right auricle and ventricle contained about a tablespoonful of milk mixed with blood. The liver was enlarged and of a milky color. On cutting into it about three ounces of milk, slightly colored with blood, flowed from the cut surfaces. When this was collected the blood separated from it and sank to the bottom of the vessel, leaving the milk of a natural color on the surface. The spleen



was dark colored but contained no milk. The accumulation of milk in the liver is a curious circumstance and is not easy of explanation. The milk was injected through the femoral vein; there was no communication between the portal system and the femoral or iliac veins. There was no milk in any of the vessels, but it was all in the liver. It seems to me that the milk must have regurgitated from the right side of the heart into the inferior vena cava, and from thence found its way through the hepatic veins into the liver.

No. 4 was a medium-sized healthy dog. Chloroform was again employed. Nine ounces of blood flowed from the artery before the current ceased. Eight ounces of milk were injected; the dyspnoea accompanying its introduction was more marked than in any of the previous cases, and there were added to it convulsive twitchings of the muscles of the head and neck. Death occurred five hours after the operation. The post-mortem appearances were the same as in the second case.

No. 5 was a very large and powerful animal. When the femoral artery was opened sixteen ounces of blood came away before the flow ceased. Ten ounces of milk were injected with the same characteristic effects as before mentioned. The dog got off the table without assistance and did not seem to be much affected by the operation. Death occurred eight hours subsequently. The post-mortem appearances were the same as in the 2d and 4th cases.

No. 6 was a medium-sized dog in good condition. Ether was used to produce partial anesthesia. Eleven ounces of blood produced syncope. Eight ounces of milk were injected. Death took place six hours after the operation. Post-mortem appearances were the same as found in the previous case.

No. 7 was a counterpart of No. 6, both as regards operation and results.

No. 8 was a large dog, with little flesh on his bones. At least twelve ounces of blood flowed from the femoral before syncope occurred. No milk was injected. The dog recovered.

No. 9 was operated on in the same manner. The amount of blood lost before syncope occurred could not be estimated, as the animal was running around the floor while the bleeding was going on. No milk was injected. On the fourth day after the operation he seemed to be in perfect health. My assistant, Dr. Saunders, killed him on that day because of his biting propensities.

Now we have here seven dogs bled to a state of syncope, and milk injected, with not a single recovery. We have two dogs bled in the same manner—no milk injected—and recovery in each case. There is only one conclusion to draw from this: that is, the milk killed the dogs. Prof. T. G. Thomas is decidedly of the opinion that the milk was decomposed, and the animals poisoned by it. He may be right. But it seems to me hardly probable that milk should decompose in the short space of two hours sufficiently to act as a deadly poison when thrown into the circulation. Besides, you will remember that, in my first case, the milk remained in the ward *all day* before the second injection was made. With this fact in my mind I cannot agree with Dr. Thomas. It is more likely that death was due to the *quantity* of milk injected, and not to any poisonous change. Eight ounces of milk for an ordinary sized dog would be the equivalent of thirty or thirty-five ounces of milk in a healthy adult, and I don't believe that any human being could be bled to syncope, and then have thirty ounces of milk injected with impunity. It would be certain death!

Since these experiments were performed, Prof.

Thomas has operated on more cases. Two of them were reported in the *New York Medical Journal*. One of the patients had gangrene of the intestines. She lived six days, and was repeatedly transfused with milk. The second one had persistent hemorrhage from the peritoneum following an operation for ovariectomy. She was transfused twice. Death took place on the second day. Dr. Thomas is of the opinion that death would have occurred much earlier in both these cases, were it not for the intravenous injection of milk. In all, Dr. Thomas claims four complete recoveries out of seven cases. Drs. John H. Brinton and Charles Hunter, of Philadelphia, have also operated successfully in several instances, and Dr. Brinton believes that milk will ultimately supersede blood in transfusion. Now, although my own experience in the matter gives me little faith in the utility of transfusion of milk, I cannot overlook the facts presented by these gentlemen, and feel justified in making further trials.

This woman that I am about to operate on to-day is, as you can readily see, in a critical condition. She is twenty-four years old and is suffering from phthisis and syphilis. There are cavities in both lungs. Her temperature is 102° F. Pulse is 130 per minute and is thready and intermittent. The respiratory movements are gasping and number 40 per minute. She has not strength enough to speak above a whisper. Remember, however, that some of this condition is due to fright. We must deduct at least fifteen pulsations from the number given to get at the condition of the pulse before coming to the amphitheatre, and count the respiratory movements at 30 to reach the same result. The operation for transfusion of milk is the same as for transfusion of blood, and the same instruments are used. You can open the internal saphenous vein, the median basilic or cephalic veins. It makes little difference which one is opened. In this case I will open the left cephalic an inch or two above the elbow. Now I pinch up the integument over the vein and incise it with a curved, sharp-pointed bistoury. This, you see, exposes the vein; now you can either pick up the vein with a dressing forceps and make a transverse valvular opening through its anterior wall, or distend the vein by pressure above and incise it with the bistoury in the direction of the wound in the integument, making an opening a quarter of an inch in length, as I am now doing. Pressure below the opening prevents the escape of blood. Then I introduce the canula belonging to Colin's instrument; this canula is closed by a trocar, so that no air can enter. Now you can either fasten the canula in its place by means of a ligature or close the vein below in the same manner, but there is no necessity for this. Pressure with the thumb and forefinger will do as well. This part of the work you can entrust to your assistant.

[At this point a goat was brought in and milked. The milk was strained through carbolized gauze into a glass vessel placed in warm water at 107° F. Colin's instrument, previously immersed in warm water at the same temperature, was then filled with the fresh milk. A small portion was forced out through the rubber tube and canula to expel the air. The trocar was drawn from the canula in the patient's arm, and the smaller canula attached to the instrument fitted in its place. Nearly four ounces of milk were then slowly injected. When the first ounce was thrown in, the respiratory movements went up to seventy per minute, and the pulse could scarcely be felt. The operation was suspended for a few moments while the patient recovered from its effects. The second ounce or two caused the respiratory movements to cease for a

moment. Pressure in the epigastric region was made until they were again resumed. The same results ensued when the last ounce was thrown in, and the operation suspended. About half an hour after the transfusion the patient seemed to be much improved. The spasmodic respiratory movements had disappeared, and the pulse had fallen to 120.]

## Original Communications.

### THE SCIENTIFIC LESSONS OF THE MOLLIE FANCHER CASE.

By GEO. M. BEARD, M.D.,

NEW YORK.

NEWSPAPER discussions of novel and abstruse problems in science are so unsatisfactory and exasperating, that it is pleasant to take the case of Mollie Fancher out of popular into scientific circles.

From a scientific point of view, this case has a threefold interest, and is worthy of far more attention from neurologists than it has yet received.

1. As illustrating the phenomena of trance and the automatic side of the nervous system.

2. As illustrating the worthlessness of average human testimony in matters of science.

3. As enforcing the necessity of the reconstruction of the principles of evidence on the basis of the physiology of the brain.

In not one of these three relations is this case, however, exceptional or unprecedented.

There have been hundreds, if not thousands, of cases similar in kind, though differing more or less in degree.

Within the last month I have been consulted in regard to two cases, in which both the real and accredited phenomena are in many respects precisely the same as those of the Mollie Fancher case, including starvation, hysteria, trance, and the claims of prophecy, clairvoyance, and mind-reading, the main difference being in the extent of time through which the phenomena were extended.

While it is unfortunate for the cause of science, that the friends and physicians of Mollie Fancher have been unwilling to submit the case to expert and exhaustive investigation, yet it is doubtful whether there is any country in the world, outside of Germany, where public sentiment would allow such investigation as this case demands.

In order to learn just how long a person in this hysterical, oftentimes entranced, condition can live on a small quantity of liquid or other food, it is necessary to have the case taken entirely out of the hands of friends and kept under the eye of experts, night and day, constantly for a number of months. Anything short of this would be useless and unsatisfactory, and would leave the subject where it found it—undetermined. In the present state of our knowledge of the physiology and pathology of the nervous system, no one probably would venture to name the minimum quantity of nourishment that would suffice to sustain existence in an hysterical and entranced patient.

My own studies of this subject, make it reasonably certain to my own mind that even those that are not hysterical, or liable to trance, may, during prolonged illness, subsist on liquid nourishment alone considerably longer than is generally believed; but only such

an investigation as is here suggested can give the problem a definite solution for any given case.

The starvation side of this case is, however, its least interesting and least important feature.

We have not in our profession a more honorable or able body of men than some of the Brooklyn physicians who have been directly or indirectly connected with the case of Mollie Fancher; and yet the instincts of the majority, both of general practitioners and specialists of nervous diseases, reject all of their testimony relating to the claims of clairvoyance, mind-reading, and prophecy. Studying the subject through the reason, we know deductively by the law of biology that no member of the human species can have any quality different in kind from those that belong to the race; hence, to investigate such claims or to offer money rewards, as the French Academy has done, for them is unscientific. By this same process of reasoning, from the established laws of astronomy, of chemistry, of physics, of mathematics, the claims of astrology, of alchemy, of perpetual motion (Keely motor and Winter motor), of squaring the circle, have been absolutely disproved. Mollie Fancher is the Keely motor of physiology. Any expert, by half an hour's experimenting with this or with any similar case, could easily show that her claims in these respects were the result of intentional or unintentional deception; but we know that already, and such experiments would add nothing to science, and therefore should not be made, save as an amusement, or as a means of impressing the popular mind, which is unable to grasp the significance of biological laws. In order to be an expert in cases of this kind, it is not enough to be a man of common sense—which, as has been well said, is a synonym for common ignorance; it is not enough to be honorable and truthful; it is not enough to be a man of general scientific attainments or even genius; it is not enough to be a physician of experience and skill; it is not enough to be a specialist in the diseases of the nervous system; it is necessary to have studied both theoretically and practically this side of the nervous system—the involuntary life in health and disease, including trance, and the reciprocal action of mind and body.

These subjects, as well as the science and art of experimenting with living human beings, are not yet taught in medical schools, nor in works of physiology nor of general or special medicine that deal only with the past; they belong to the science of the present and the future, and are mostly confined to monographs that few read and few comprehend; and no one is to be blamed for unfamiliarity with them. Experts in this department ought to come, and in time will come, from the medical profession and those interested in the nervous system; but two of the very best experts that I know of in this department are laymen, both of whom have given time to the study of the nervous system, and are capable of dealing theoretically and practically with cases like those of Mollie Fancher; and in any experiments that they should make with living human beings, all the six sources of error—intentional deception on the part of the subject, unintentional deception on the part of subject, intentional collusion of bystanders, unintentional collusion of bystanders, chance and coincidence, the phenomena of trance, and the involuntary life—would be eliminated, and, to my mind, their conclusions would be, in a degree, authoritative. How a neurologist of world-wide and justly-earned reputation may blunder in experiments with living human beings is illustrated at the present time by the gro-



tesque performances of Charcot and his coadjutors in his researches with metals, magnets, and mesmerism, on the hysterical patients in the Hospital Salpêtrière. Worse experiments in the name of science never were made, not even by the Committees of the French Academy in the early days of Mesmer—than these which now, under the auspices of Charcot, are exciting the astonishment and the wonder of scientific Europe. Charcot's mistake consists simply in not eliminating the six sources of error; consequently, in most of his experiments—according to his own reports of them—false conclusions are so numerous that they crowd each other, and completely block the pathway to the truth.

The analogies of the case of Mollie Fancher to the Salem witchcraft excitement are, up to a certain point, striking and instructive. The Salem delusion originated in three or four young girls, in whom hysteria, trance, malice, and mischief were so intermingled that they were supposed to have been bewitched. The honest and good physician who was called in made a diagnosis of the "evil eye"—that is, endorsed the belief of their friends; the clergymen followed with the hallelujahs, and the judges with their wise decisions. All the rest was, in that age, a logical sequence. The extreme character of the Salem excitement, by the law of reaction, broke the force of the belief in witchcraft, which for centuries had dominated the civilized world, although the human testimony in its favor was stronger than ever. Clairvoyance, with its allied delusions, is the witchcraft of the nineteenth century, and the excitement in regard to the Fancher case by the very extravagance and stupendousness of its claims will do more than any course of abstract reasoning could possibly have done to hasten its decline. Delusions, like all else in nature, seem to move in rhythm. They have their periods, their lulls, their lucid intervals, their exacerbations. This is, I believe, the third time in a few years that a wave of excitement in regard to Mollie Fancher has rolled over the land. Scores of times during the past few years have I been requested and urged to investigate her case. At one time these requests were so numerous and earnest that I conferred with Dr. Speir in regard to it. While politely declining to allow me the privilege I sought, yet, in our conversation, he took, so far as he went, a scientific position, making no unphilosophical claims, and freely admitting that, in spite of all that had been done or written, the case had never been scientifically investigated, and intimated that, with his consent, it never would be. To friends and acquaintances of the family who have spoken to me in regard to the subject, I have replied almost uniformly that if they could induce the patient or her relatives to submit to scientific investigation, I would cheerfully co-operate with her physicians. One who knows, or professes to know, the family very well, and who desired me to study the case, lately declared in substance that no earthly power could avail to open the doors to a scientific investigation.

This personal explanation is made as a reply to certain communications recently received, reproving me in language always earnest, enthusiastic, and sincere, but sometimes the reverse of polite, for not subjecting this case to inductive scrutiny.

The care with which this case of Miss Fancher has been walled about and closed against the investigation or visitation of all those interested in these phenomena of the nervous system is not in any way peculiar to this case; so far as I have observed, all cases

where claims of this kind are made—and hundreds have been brought to my attention—are similarly guarded; fear of experts is one of the symptoms, almost pathognomonic. A short time since an intelligent and esteemed medical friend desired me to assist him in studying experimentally the claims of seeing without eyes in a lady of his acquaintance. As an accommodation and an evening's amusement I consented, on the condition that it should not be known that I was especially interested in the subject. The result of the examination was to show that this educated and accomplished lady, the wife of a prominent professional gentleman, and moving in good society, had for years been intentionally deceiving not only her intimate friends, but even her husband and physician; and no persuasion could afterwards induce her to repeat the tests in the presence of her physician and myself, although she had repeatedly promised to do so.

The phenomena of trance, as illustrated in this case, are genuine; and it is evidence of the carefulness with which this branch of science has been avoided that while the unnatural and impossible claims of a sixth sense are received, the real and demonstrable facts of trance are disallowed.

In ordinary neurological language this case of Miss Fancher would be designated as hysteria of a traumatic origin, with contractures and attacks of ecstasy, which, like catalepsy, is but another term for one of the many phases of trance. In this diagnosis there would probably be little difference of opinion among those specially interested in such cases. The symptoms of trance are numerous and complex, but they are not mysterious; they can be explained and are explained, and are shown to obey the rule of law as truly as the symptoms of small-pox or typhoid fever.

Unsought-for evidence has been brought to me from various quarters—from physicians and from clergymen as honorable and as able as any whose names have appeared in connection with this case—that Mollie Fancher intentionally deceives; that she lives on the fat of the land; that the fancy articles she professes to make are made for her; that her reading without eyes is done by trickery; but all this, like the evidence on the opposite side, is of a non-expert character and can, in science, receive no consideration. The question whether the deception is intentional or unintentional is, however, one of little scientific interest, and its solution would be of no importance. Bringing probabilities to bear on the case, this may be said, that in nearly all the claims of this character that I have had opportunity to investigate, the deception was found to be intentional; the experience of other observers in Europe and this country is, I believe, the same. According to the principles of evidence, as taught in the best universities and authorities on logic and law in the world, all the claims of Miss Fancher must be accepted and without question, for better and more unanimous non-expert testimony could not well be obtained on any scientific problem. During the past ten years, however, the leading thinkers of England and Germany have been consciously or unconsciously concentrating their forces towards that point where is to be begun the work of reconstructing the principles of evidence. Such reconstruction has only recently been formally attempted, but its suggestion is found to receive earnest endorsement among those who, by previous thought and experience, are prepared for it.

Human testimony is the product of the human brain, and its scientific study belongs to those who,

like physicians, devote themselves to the study of the brain in health and disease. No profession has more frequent cause for distrusting non-expert testimony than the medical; the practice of medicine is indeed built up on the rejection of the evidence of the senses of honest non-experts. If we could trust the eyes and ears and touch of the friends of patients there would be little need of making personal visitations.

The Fancher case will have been of value, if it shall do no more than impress on the professional mind the importance of a re-study and re-building of the logic of medicine.\*

### POWERLESS LABOR—A FORM NOT USUALLY RECOGNIZED.

By W. E. FORREST, M.D.,

RESIDENT PHYSICIAN TO THE LYING-IN ASYLUM; ATTENDING PHYSICIAN TO THE NEW YORK DISPENSARY.

WHEN one consults the older works on obstetrics, not those of the time of Hippocrates, but standard works of fifty years ago, and compares their teaching as regards the use of the forceps with that of to-day, one is struck with the great change that has taken place in recent times.

Authorities of fifty years ago speak of the use of the forceps as guardedly as they were wont to speak of Cæsarian section, and lay down rules for their use that if followed at the present day would lay one open to the charge of mal-practice. Thus, the rule laid down by Merriman was, that "the forceps should not be applied until the ear of the child had been within reach of the operator's finger for at least six hours." And Denman's rule differs from this mainly in words; he says: "A practical rule has been formed that the head of the child shall have rested for *six hours* as low as the perineum, that is, in a situation that would allow of its application before the instrument is applied, although the pains should have altogether ceased during the time." It is not necessary to say that such rules are disregarded at the present day, and modern practitioners resort to the forceps much more frequently than Denman's rule would indicate. A very striking illustration of the change in practice as regards the use of the forceps is furnished by the reports from the Rotunda Hospital, Dublin. Between the years 1815 and 1822 there were 21,867 births at this institution, and there is no record of the forceps having been used even once during this time. Between the years 1847 and 1854, the forceps were used two hundred and twenty times, or once in every sixty-two births. Between the years 1868 and 1875, the forceps were used six hundred and thirty-nine times, or once in every eleven cases. In 1875, once in every nine cases. Thus is seen the great change that has taken place within a few years as regards the use of the obstetric forceps. The older practitioners were guided by an arbitrary "six-hour" rule. Modern practitioners have discarded this rule, but have gone, it would seem, to the other extreme, and use the forceps not unfrequently because they are unwilling to await nature's movements. Both plans, the "six-hour" rule and the premature use of the forceps, must be condemned by every conscientious practitioner, for it is not the factor of *time*, either long or

short, but the factor of *power* that should determine the use of the forceps. Hence, if the "obstetrician of the future" is to render intelligent assistance to nature in the delivery of the child he must have an accurate knowledge of nature's resources so as to come to her aid at the very moment she fails, and delay becomes dangerous to either mother or child.

It is with the hope of adding something to the sum of our knowledge as regards the different forms of powerless labors, and hence of leading to a more rational and exact indication for the use of the forceps, that I present the history of the following case. In doing so I lay no claim to originality of discovery or publication. My attention was called to this subject by a paper read before the Edinburgh Obstetric Society, by Dr. Matthews Duncan. Since reading that article I have observed and recorded several cases of the form of powerless labor described in this paper, and present the case given below not as a rare and phenomenal case, but as a typical example of a not unusual form of labor.

Mrs. M., age 26, primipara; strong, healthy woman. The patient was taken in labor on August 30th. at 4 A.M. The pains were moderately strong, and recurred every fifteen minutes. Every pain was immediately followed by an act of vomiting. The bowels also moved freely, although previously she had been obstinately constipated. The patient was first seen by Dr. E. L. Partridge, who requested me to take charge of the case.

At 11 A.M. visited the patient, and found the pains rather strong, but no more frequent than early in the morning. The vomiting also persisted with each pain. The os just admitted one finger; the cervix was long and far back.

At 3 P.M. the condition of the os and cervix was the same. I concluded that labor would be postponed for one or two weeks, a not very unfrequent occurrence when the cervix is rather long and firm.

September 16th.—Two weeks from the time of the former attempt labor-pains commenced again. Saw the patient at 7 A.M., and found the cervix obliterated, and the os admitting one finger. Vertex presentation: first position. The pains were regular and strong, and, as in the previous attempt at labor, every pain was immediately followed by an act of vomiting.

At 11 A.M. visited her again, and found the labor progressing rapidly and naturally. The os was about half dilated, and the membranes ruptured. I expected the labor to terminate in less than two hours. On account of the loud complaints of the patient, and of there being a hysterical element in the case, I allowed her to inhale a little chloroform, but never enough to produce unconsciousness.

12 M.—The os fully dilated, and the head descending. 1 P.M.—The head well down in the pelvis; could just slip three fingers in between the perineum and vertex; pains strong and frequent; perineum not rigid. I promised a speedy termination of the labor if the pains continued. At half-past one P.M. the head had made no further progress. With each pain the vertex advanced nearly to the perineum, and then receded. I now tried to assist the labor by making pressure upon the abdomen during the pain.

In making the necessary manipulations, I observed the following peculiarities: First, the fundus of the uterus was very high in the abdomen, just below the ensiform cartilage, although the head of the child was well down in the pelvis. This position of the fundus I thought explained the act of vomiting that accompanied each pain. The fundus of the uterus

\* For those who may wish to pursue this subject beyond these brief suggestions, and to parry the charge of dogmatism, I may, perhaps, be allowed to refer to papers on "The Scientific Study of Human Testimony," in the *Popular Science Monthly* for May, June, and July, 1878, and to a paper presented at the last meeting of the Am. Neurological Association, entitled "How to Experiment with Living Human Beings," shortly to be published in the same journal.



must of necessity press upon the stomach during each contraction.

Second: The breech of the child could be felt a little distance above the umbilicus, and some distance below the fundus uteri. Hence the uterus had, so to speak, partially slipped off from the child. Third: During the contraction of the uterus the portion of the uterine tumor, extending from the fundus to a line about two inches below the umbilicus, alone seemed to harden and rise up during a pain. Below this well-marked line the contraction of the uterus died out. This line, as I have said, was less than two inches below the umbilicus, and I judged that the body of the uterus lay above this line, and the thinned and lengthened cervix and vagina below. In an ordinary natural labor the line of the internal os can be felt a short distance above the pubes. From these observations I concluded that the body of the uterus had prematurely shortened, so that the fetus was out of the grasp of the uterus, and hence the powerful longitudinal fibres of the uterus were of no further avail. The circular fibres unaided were unable to expel the child. I now had to inform the friends that my previous statement as to the speedy termination of the labor was a mistake, and instruments must be used. At the same time the pains were strong and frequent, and the vertex of the child was nearly against the perineum. I at once sent for the forceps; but it was three p.m. before they could be obtained and applied. After locking the forceps, I had simply to lift the head out of the mother's pelvis, and the labor was speedily terminated. The uterus contracted well, but even then remained very high up in the abdomen, so that I was compelled to push the uterus down toward the pelvis in order to apply the bandage properly.

The child was a female, weighing about eight pounds.

The lessons to be derived from this case are, it seems to me, not unimportant. First, this case shows how radically wrong and unscientific is the "time" rule for the use of the forceps. "Leaving the case to nature" for one hour, or six, in this form of powerless labor, is not only unscientific and useless, but dangerous. It is useless, because power is wanting, the uterine forces being misapplied. A premature shortening of the uterus and retraction of the internal os has, so to speak, spent the leverage of the uterus, and nature unaided cannot expel the child. Thus, in the case whose history I have given, there was a necessary delay of two hours in the use of the forceps, during which time there was no obstacle to delivery in the formation of either the maternal or foetal parts, and the pains continued, yet no advance was made. Delay in this form of labor is dangerous. Dr. Angus McDonald, in an article on "Rupture of the Uterus," has shown that spontaneous rupture of the uterus commences usually in the cervical portion—in fact, that rupture of the body of the uterus never takes place unless previously diseased. Rupture in the cervical portion, it is evident, might occur when this portion became thin and tense from being elongated. Hence the form of powerless labor I have described is not without danger to the mother, for the great retraction of the body of the uterus stretches the cervix uteri and vagina, and makes them thin and tense.

By a very little reflection, it will be evident that in this form of powerless labor, due to a premature retraction of the uterus, ergot and such stimulants should not be given. The effect of ergot would be to cause still further retraction of the uterus, and consequent greater tension of the cervix uteri and vagina. In these cases there should be no delay in

delivery. If pressure upon the fundus of the uterus during the pains does not serve to expel the child, the forceps should be resorted to at once. Usually very little traction will suffice to terminate labor.

*Diagnosis.*—It is important that this form of powerless labor be early recognized and carefully distinguished from the ordinary form of powerless labor arising from uterine inertia. Fortunately, the diagnosis is not especially difficult. Reference to the history of the case, as given above, will make the points of diagnosis clear. These diagnostic points I will here recapitulate:

First: The patient was a primipara. This form of powerless labor occurs most frequently in primipara, while that form due to uterine inertia occurs usually in old multipara.

Second: The pains were strong, and accompanied by expulsive efforts. The pains, too, were of the ordinary duration. In uterine inertia, on the other hand, the pains are short, weak, and discouraging.

Third: The fundus of the uterus remained unusually high in the abdominal cavity throughout the labor.

Fourth: The most important sign was the discovery of the line of the internal os uteri a short distance below the umbilicus. This line could be distinctly felt through the abdominal walls, and was regarded as being diagnostic. In an ordinary labor, this line may be felt a short distance above the symphysis pubis, and can usually be distinguished by careful manipulation. During a pain, the body of the uterus alone thickens and hardens and rises up, and hence can be easily distinguished from the cervical portion, which is thin and tense.

These few signs will enable one to distinguish this form of powerless labor from the ordinary form due to uterine inertia. The rationale of these signs, when understood, will indicate the treatment.

The treatment, it will be seen, may be entirely different in the two forms; for while in the one case, that of simple uterine inertia, we may temporize and give opium to procure rest for the patient, and later give ergot to stimulate the flagging energies of the uterus, in the other form the duty of the accoucheur to immediately deliver by manual or instrumental aid is imperative.

168 SPRING STREET.

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

#### PERIPHERAL PARALYSIS.

At a recent clinic held in Bellevue Hospital, a man presented himself with inability to extend one hand and fingers. Inquiry elicited the fact that six weeks before he had been struck by a policeman upon the arm at some point of which he was unable to give an account.

He had been under treatment for Colles' fracture of the radius, but after removal of the splints a failure of extension power was still found to exist. An examination showed loss of power in the distribution of the posterior interosseous nerve. There was inability to extend the hand and fingers. When he grasped the dynamometer he could only carry it to thirty upon the outer scale. But at the time he grasped it complete flexion of his hand took place, due to want of antagonism of the extensors. When, how-

ever, the thumb and index finger were placed underneath the thenar and hypothenar eminences—and in that manner the action of the flexors was antagonized—he was able to turn the dynamometer almost to the same degree as upon the opposite side.

Remarks by Dr. Janeway: It seems, in a certain number of cases, that because of paralysis of the extensor muscles, whether from lead or from injury of the musculo-spiral or posterior interosseous nerve, many are led to believe that a certain amount of paralysis exists in the flexors. This, however, is chiefly apparent, and is due to the fact that there is no antagonism to the action of the flexors; hence their first action is to carry the hand to full flexion. The result is that the flexors being in that position are unable to exert their full force. If, under these circumstances, by means of artificial rubber muscles, or by adopting the expedient just shown—that of placing the thumb and finger so as to keep the hand midway between flexion and extension—it will be found that there is almost complete power in the flexors. A part of the want of power in those cases in which it is incomplete is probably due to want of complete antagonism. Of course I do not wish to claim that in no case of lead paralysis is there coincident paralysis of the flexors, because in some cases all the muscles of the body are paretic. But in the early stages of lead paralysis it does not exist to the extent claimed by some authors. I have directed attention to this point during the past four years, and am glad to see that Erb has, in his article on peripheral paralysis, in Ziemssen's Cyclopaedia, drawn attention to the same circumstance.

## Progress of Medical Science.

**RETENTION OF URINE RELIEVED BY CHLORAL.**—Dr. Tidd reports the case of a young woman, in the ninth month of pregnancy, who had not urinated for twenty-four hours, as a result of which the bladder was enormously distended. Catheterism was tried, but failed, in consequence of the swelling and of the deviation of the urethra. Puncture of the bladder was proposed, but the patient refused to consent to it. Ten grains of chloral were then ordered every half-hour. It produced a deep sleep, during which the patient passed unconsciously an enormous quantity of urine. The evacuation commenced five minutes after the second dose of the solution. The retention did not recur, and seven days later the patient was delivered of a healthy child.—*Jour. de Méd. de Bordeaux.*

**DUPUYTREN'S CONTRACTION OF THE FINGERS.**—Mr. William Adams believes that the palmar fascia is the seat of this affection, and that it is due almost always to constitutional, rather than local causes, most frequently being traceable to the gouty diathesis. As the disease advances, the skin becomes adherent to the fascia, and presents the convoluted appearance which has led some to think it the seat of the disease. That this is not so is shown by dissections and by the success of Mr. Adams' method of treatment, which consists in subcutaneous section of the contracted bands. In doing this he makes use of a much smaller tenotome than those ordinarily employed, passes it in between the skin and the fascia, and cuts downward. Several punctures are made, the first near the annular ligament, the second near the base of the phalanx, and the third and fourth divide the lateral bands or

digital prolongations of the palmar fascia, which usually pass from the central cord in the palm to the adjacent sides of the fingers. These should be divided very carefully, to avoid cutting the vessels and nerves at the sides of the fingers; the punctures should be made at the bifurcation of the cutaneous net between the fingers, and the incisions directed obliquely upward and outward, towards the palm. The fingers are then fully extended and a well-padded metal splint applied to the palmar surface. This is not to be removed before the third or fourth day, by which time the punctures will be found healed. The extension is kept up for two or three weeks, after which the splint is worn by night for three or four additional weeks, free motion being encouraged during the day. If partial relapse occur, and Mr. Adams has never known of more, the operation may be repeated, and the tendency to recontraction prevented.—*The Lancet*, June 29, 1878.

**SUBCUTANEOUS INJECTIONS OF CHLOROFORM.**—M. Besnier lays special stress on the necessity of burying the point of the needle in the subcutaneous tissue: he introduces the needle alone, watches it to see if any blood escapes (in which case he punctures in another place), and only finishes the operation when he is certain that the fluid will not be forced into a vein. In cases of sciatica he injects on the first day one syringe-ful over the point of exit of the nerve, and another over the middle of its course. On the following day he makes another injection over the external popliteal. It is in *tic-douloureux*, however, that he looks for the most valuable services from the injections.—*Lyon Médical.*

**TREATMENT OF ENURESIS NOCTURNA.**—Dr. Kelp has, on several occasions, drawn attention to the value of subcutaneous injections of the nitrate of strychnia in the treatment of obstinate cases of nocturnal incontinence. He practises the injections in the neighborhood of the sacrum. A single injection of a very small quantity of the drug suffices to arrest the affection for a certain time, and when it reappears, the operation can be repeated. His latest paper cites the case of a young woman, eighteen years of age, who had suffered from enuresis every night for several months; it came on first after an attack of scarlatina, and persisted in spite of all precautions. The first injection procured her a respite of several nights, and the second produced a permanent cure. The patient was a strong healthy girl, and had never suffered from enuresis previous to the attack of scarlatina.—*Le Mouvement Médical.*

Dr. Grisolle recommends the following combination in the treatment of this affection: Extr. nuc. vom. grs. iv., ferri phosphat. grs. xlv., extr. quassia, grs. xxx., rad. gent. q.s. M. ft. pil. No. 25. Dose, one pill three times a day. In connection with the pills he orders cold hip-baths and abstinence from fluids during the evening.

**PARACOTOIN IN THE TREATMENT OF CHOLERA.**—Prof. Baelz, of Tokio, Japan, treated five cases of cholera during the recent epidemic, with paracotoin, and with the happiest results. The number of cases was necessarily small because of the limited supply of the drug at hand, but the results were so striking, that the Japanese Government has determined to give the remedy an extensive trial in case another epidemic should break out. Prof. Baelz administered it by subcutaneous injection, in doses of 3 grs. dissolved in glycerine and distilled water. The following short clinical history illustrates well the power of the rem-



edy: M., a robust girl, 22 years of age, was not seen until four hours after the disease set in. She was then very apathetic, markedly cyanosed and collapsed, with cold extremities and thready pulse. Frequent vomiting; rice water stools, passed unconsciously in the bed. At 4 p.m. 3 grs. of paracotin were administered subcutaneously. Next passage at 5.30; 3 grs. paracotin given internally. All the symptoms improved: the pulse became stronger and regular, the extremities regained their warmth, and the cyanosis disappeared. Cognac, 5 iss. every quarter of an hour. 8 p.m. one thin, puppy passage; 12 M., 3 grs. paracotin subcutaneously; 1 a.m., profuse perspiration. On the following day great weakness, but patient otherwise perfectly well.—*Deutsche Med. Wochen.*

**TREATMENT OF ERECTILE TUMORS.**—Prof. Vermeil, who is a strong advocate for the treatment of erectile tumors by coagulating injections, uses the precaution of compressing the circumference of the tumor with the ring of an ordinary key, for four or five minutes after the injection has been made. He recommends as an injection the following mixture: perchloride of iron and distilled water, ana, ʒi.; chloride of sodium, ʒi. In a recent case of erectile tumor on the arm of a child, he made four punctures, and injected only three drops at each puncture.—*Le Mouvement Médical.*

**DIAGNOSIS OF AMYLOID KIDNEY.**—Albuminuria, occurring in the course of long-standing suppuration, is too generally regarded as indicative of amyloid degeneration of the kidney; but chronic parenchymatous nephritis occurs under similar etiological conditions, and also gives rise to albuminuria. The difficulty of differentiating the two conditions is well known. Bartels points out that the diagnosis depends upon the distinguishing characters of the urine, which, in the former, is clear, with little sediment and few casts, mostly hyaline, and scarcely ever blood-corpuscles. If the latter it is always more or less turbid, with considerable sediment; is dirty colored, contains many casts of every variety, and not uncommonly blood corpuscles. In those cases in which no albumen is present, there have been signs of amyloid disease in other organs; and, in order to escape error, it will be enough to know that the absence of albumen from the urine does not exclude a slight degree of amyloid disease of the kidneys.—*The British Medical Journal*, July 27, 1878.

**EXTRA-ARTICULAR OSTEOTOMY FOR GENU-VALGUM.**—The treatment of genu-valgum by osteotomy has occupied much attention, and Dr. Ogston, of Aberdeen, is among those who have helped to throw much light upon a very difficult branch of surgery. His method consists of making a small opening into the joint, passing in a small saw, and sawing off the internal condyle of the femur. So far this proceeding has been carried out successfully about thirty times, but it is open to obvious objections. Mr. Reeves, of the East London Hospital for Children, has just put another method into practice, and he submits that it is free from the risks to which Dr. Ogston's plan is liable. The two methods may be described respectively as intra-articular and extra-articular. His method, as described in the *British Medical Journal* for May 25, 1878, may be thus summarized: A scalpel, antiseptically prepared, was passed in obliquely just above the inner tuberosity. The periosteum was divided; then a chisel was passed in along the knife, and the internal condyle separated *as far as the condyle only*. The chisel was then used to pry the condyle

inward until it was found to move moderately freely. The limb was straightened; a long splint interrupted at the knee, and with a cross-piece at the foot to keep it steady, was adjusted. As the condyle differs in shape and depth, it is of course necessary to be accurate in chiselling, and Mr. Reeves marked out with ink on the skin not only the contour of the condyle, but also the direction of the chisel-cut. The greatest depth of the condyle was marked on the chisel, allowance being made for the thickness of the cartilage and of the soft parts. The chisel was then driven home until the mark on it nearly reached the skin. The condyle having been first penetrated in its greatest depth, the chisel was partially withdrawn. Its direction was altered—first forward, then backward; and by a few oblique touches, due allowance being made for the varying depths, the condyle was felt to be sufficiently loose, when the instrument was withdrawn. It might be thought that the uncut cartilage, with perhaps some slight uncut bony ridges, would either interfere with the reduction of the deformity, or would only yield after being broken. The result does not confirm these objections. But even if the cartilage were to fracture, or even if the point were entered, the proceeding would not be so severe as if done with a saw. It is more correct to say, not that the internal condyle was separated, but that the greater part of it was *almost* separated—that is to say, that the chisel did not extend to the intercondyloid groove, but only to its inner side. The aim of this is to preserve some part of the inner condyle which may grow, and thus obviate any possible future *genu extorsum*, which may be the consequence of the increased growth of the external condyle. The advantages of the extra-articular method seem to be greater rapidity of execution rendering it more strictly subcutaneous, much less damage to the bone, cartilage, and soft parts, no interference with the joint; and, as the condyle is not completely separated, there is less likelihood of subsequent non-union and necrosis.—*The Dublin Journal of Medical Sciences*, July, 1878.

**UNEQUAL LENGTH OF NORMAL LIMBS.**—Dr. John B. Roberts has made accurate measurements of the femurs and tibias of eight skeletons, for the purpose of determining the comparative length of the normal limbs. The extreme length of the bone was taken, the measurement being made by an instrument similar to a shoemaker's rule. In one case the tibias were not measured, owing to one malleolus being broken, but the femur on the right side was one-sixteenth of an inch longer than its fellow. In none were the limbs of equal length, the difference varying between two-sixteenths and twelve-sixteenths of an inch, the average being about six-sixteenths. In two cases the tibias were equal, but the femurs were always irregular. It was doubtful whether the tibias of one skeleton belonged to the same individual. These measurements are of interest in connection with fracture, and in medico-legal questions.—*The Medical Times*, Aug. 3, 1878.

**CASE OF SCIATICA TREATED BY NERVE-STRETCHING.**—Dr. Macfarlane, of Kilmarnock, reports a case of sciatica successfully treated by nerve-stretching. The case existed from January 26, 1877, to November 3, 1877, uninfluenced by any treatment when nerve-stretching was proposed and performed. The nerve was thoroughly stretched, although the leg was not raised from the table. Immediate relief was afforded, and no relapse has as yet (eight months) taken place. Antiseptic precautions were observed, and union by first intention obtained.—*The Lancet*.

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## HYSTERO-EPILEPSY AND METALLO-THERAPEUTICS.

In a previous issue, we entered into a full discussion of the clinical history of the peculiar disease known as hystero-epilepsy. In the present article we propose to criticise the genetic relationship which is supposed to exist between this disease and metalloscopy, as well as its treatment by the newly-developed method of metallo-therapeutics.

In 1876, the so-called metalloscopy discovered by Dr. Burq was first brought prominently before the medical profession, although the founder of the new doctrine had been engaged for years in investigations on this topic, without being able to gain a hearing before the bar of professional opinion. But during the last two years, this latter condition of affairs has been reversed, and the subject is now, to say the least, receiving its full share of attention. At a recent metallo-therapeutic and magneto-therapeutic demonstration held by Charcot in his wards at La Salpêtrière, such eminent men as Virchow, Grainger Stewart, Gamgee and Lankester were attentive auditors. The wonderful results obtained irresistibly remind us of numerous vagaries—of Parkin's tractors, of hypnotism, of odic force, and of the host of other delusions of this nature—that have been long since consigned to the limbo of oblivion. But metalloscopy and metallo-therapeutics come to us with the sanction of such authoritative names—Charcot, Luys, Vulpian, Onimus, and many other younger but well-known investigators—that we may not, therefore, dismiss the doctrine involved with a shrug of the shoulders or a skeptical smile. A doctrine which is fathered by such men as we have mentioned, must be soberly and carefully examined, however wild and fanciful it may appear at first sight. The results obtained by M. Dumontpallier—who is the reporter of the Commission appointed by the French Society of Biology to inves-

tigate the experiments of M. Burq—are substantially as follows:

It is found that if a plate of a certain metal, which varies in individual cases, be placed upon the affected side of an hystero-epileptic patient who is suffering from achromatopsia, hemianesthesia and hemianalgesia, in a period varying from a few seconds to half an hour, there will be a return of sensibility, not only as regards general sensation, but also of the special sense. The return of sensibility usually first appears in a small zone around the site of the plaque of metal that has been employed. The muscular power, also, which is generally somewhat diminished in the anæsthetic limbs, becomes restored to its normal extent. Another remarkable fact in connection with this application of the metal is that very frequently the hysterical symptoms are transferred in toto to the hitherto healthy side of the body. This curious feature is known as the "phenomenon of transfer." At first it was supposed that these wonderful effects were due to the development of a current of electricity produced by the contact of the plate of metal with the skin, and M. Riguard has indeed succeeded in proving the existence of such a current by some careful experiments with the galvanometer. It has been also shown that the application of a slight current of electricity will produce analogous effects to those caused by the plaques of metal. But Dr. Burq, in the course of his prolonged investigations, made the remarkable discovery that if the metal, which proves active when applied to the skin, be exhibited internally in the form of a soluble salt, it will exercise the same effect, or, to use Dr. Burq's own language, the "external metallic aptitude" is also the equivalent of the "internal metallic aptitude." The effects of the internal administration of the metal differ from those of the external application in so far that in the former the "phenomenon of transfer" is not produced. Several patients, who had been suffering for years from the severer manifestation of hysteria and hystero-epilepsy, and who had proved intractable to the most varied kinds of treatment, experienced a remarkable improvement in all their symptoms from the internal employment of the soluble salts of various metals, continued steadily for a couple of months. We must distinctly remember, however, that it is acknowledged by the French Commission that the hysterical diathesis was *not cured* in these cases, or in other words, they were liable to relapses. And, as a matter of fact, none of these patients have yet been discharged from La Salpêtrière as entirely recovered.

Results entirely similar to those we have already noted are produced by the use of solenoids, magnets, heat and cold.

In a recent demonstration by Charcot, a solenoid—an insulated wire which connects the two poles of a single element of a galvanic battery—was wound around the finger of a patient who was suffering from



hemianæsthesia and achromatopsia. Almost immediately after the application of the solenoid, the nervous symptoms (hemianæsthesia and achromatopsia) were transferred to the opposite side of the body, while the hitherto affected side returned to its normal condition. This state of affairs persisted as long as the solenoid was kept applied to the finger, but when it was removed, the hysterical phenomena again appeared in their usual site.

Dr. G. Thérmes, of Paris, has announced in a very recent number of the *Gazette des Hôpitaux*, as the result of a series of experiments, that the simple application of heat or cold (according to the peculiar sensibility of the patient) will produce analogous effects to those already mentioned.

Physical contact has been a necessary condition to the efficacy of the various agencies which we have hitherto described, but M. Charcot has recently discovered that this is not an indispensable requisite. He states that the same effects will be produced if the two poles of a moderately powerful horse-shoe magnet be placed at a short distance from the patient. Charcot succeeded in almost curing a case of hysterical contraction of the left arm which had lasted nine months, by daily magnetization of the right arm. Sufficient time has not, however, elapsed to enable us to determine whether these results will prove permanent. It is a significant fact in this connection that Drs. Charcot and Gamgee have obtained entirely negative results when the nerve of the leg of a frog was placed between the poles of an extremely powerful magnet, in order to determine whether any change could be produced in its physiological properties. With such positive testimony as to the existence of the various phenomena to which we have thus briefly called attention, we cannot doubt their actual occurrence. But when we attempt to investigate the connection between the phenomena and the application of metallic plates, solenoids, magnets, etc., we wander into the region of metaphysics and transcendental physiology.

According to Dr. Burq, the effects depicted are due to certain mysterious affinities between our organisms and certain of the metals in our environment. This explanation might, perhaps, be intelligible to an alchemist of the Middle Ages or to some archaeologist versed in mystic lore, but to us it is entirely incomprehensible.

M. Vigouroux's explanation is as follows: the peripheral organs of general and special sensation possess a definite electrical equilibrium which is an essential factor of their proper function. The solenoids, etc., produce a tension which modifies this electrical condition and the various nervous phenomena produced are the manifestations of such a modified electrical condition.

But, in attempting to construct a theory on which to explain these effects, we must first assure ourselves

that a causal connection really exists between the two series of events in question, viz.: metalloscopy and the nervous symptoms so frequently referred to, and we must, especially, be on our guard against reasoning *post hoc ergo propter hoc*. We must convince ourselves, particularly, that the phenomenon of transfer, etc., do not follow any indifferent cause which can exercise no specific influence. We are, however, unable to do this in the face of the testimony recently adduced by two English observers. One of them, Dr. Inglis, saw the "phenomenon of transfer" follow the application of a mustard plaster, and equally conclusive was the observation of Dr. Bennet, who found it develop after the cutaneous application of plaques of wood. The cogency of these facts as strong evidence against the existence of any specific relation between magnets, solenoids, etc., as a cause, and the phenomenon of transfer as an effect, is palpable to all.

Another consideration of importance is to be found in the fact that by far the vast majority of these cases have transpired in the wards of La Salpêtrière, in an atmosphere, accordingly, which we must regard *a priori* as very prolific in the production of curious hysterical phenomena. From the printed reports of the observations made at this hospital, as well as from the account given by Dr. Gamgee in a recent number of the *British Medical Journal*, it does not appear that due precautions were adopted to guard against voluntary as well as involuntary deception on the part of the patient. In the first place, no mention is made of the patient being blindfolded during the experiments—a precaution which is so essential in the investigation of curious phenomena connected with hystero-epilepsy that it appears almost incredible to us that it was not adopted. In the second place, it appears that a verbal demonstration of the various symptoms was being carried on during the very production of the phenomena. It is well known to all who have had merely a moderate amount of experience in this field of medicine, that calling the attention of the patient to any particular symptom is very prone to call such symptom into existence. Thus we have on several occasions seen severe hysterical convulsions produced by merely telling the patient that a convulsion was about to ensue.

Another strong negative point is furnished by the fact that so many factors have been found efficient, *e.g.*, metals (external and internal), electricity, solenoids, magnets, heat and cold, wood and sinapisms. It appears to us strictly logical to infer from the existence of such a variety of dissimilar so-called causes that neither of them is an efficient factor, but that the real cause must be sought for in the condition of the general nervous system of the patient. The theory offered by M. Vigouroux, to which we have referred in the course of this article, points out the direction in which the explanation must be sought.

While, therefore, freely admitting that the remark-

able phenomena reported by Charcot and his school are actual occurrences, we must be allowed to indulge in considerable skepticism as to the existence of any relationship between these phenomena and the reputed causes thereof. History furnishes us with so many exposés of deception—voluntary and involuntary—in this field of nervous diseases that we think our skepticism is fully warranted from a purely historical point of view. The psychologist, as well as the specialist in nervous diseases, will always feel deeply grateful to the French school for their indefatigable labors in this direction, but we venture the prediction that the hope which was held out to the practical physician that metallo-therapeutics and kindred remedies would prove a reliable treatment of severe forms of hysteria and hystero-epilepsy, will turn out to be fallacious.

#### EXCLUSIVE PUBLICATION OF SOCIETY PROCEEDINGS.

At a recent meeting of the Philadelphia County Medical Society, it was decided unanimously that no report of the proceedings should be published, except by the *Philadelphia Medical Times*. Consequently it appears that only the subscribers to the journal in question can be benefited by the deliberations of this learned body. Why the Society should see fit to restrict its good offices in such an absolute manner, it is difficult to understand, except perhaps on the score that extra slips of the transactions are distributed to the members gratis. If the surrender value of the proceedings is fully equalled by the compensation given, there is but one idea to be entertained of this arrangement. It is no part of our purpose to object to the publication of the proceedings in the *Philadelphia Medical Times*, but only to the monopoly of them.

The principle is a bad one—no matter from what side we view it. The journal is virtually under a contract to publish anything and everything sent by the Society. While this may be fair to the Society, it is not so to the readers, and will in the long run seriously offset the exclusive privilege of publishing the really valuable material. The members of the Society interfere with their interests in limiting their channels of communication with the profession, if not in positively interfering with the prompt and extensive dissemination of professional intelligence. Viewed from this point, the position taken by the Society is not only absurdly illiberal, impertinently selfish, but positively stupid.

But, granting that all parties directly concerned are satisfied, some reasonable doubts may be entertained regarding the right which any society holding public meetings may have of making such contracts. We hold that so long as any meeting is open to the public, it belongs to the public. While an author owns his manuscript and a society owns its official report, anything of either which is simply read or spoken, belongs to any one who can catch and retain

it. This does not take away any credit from an author, speaker, or society, but simply gives all whom it may concern the opportunity of benefiting by suggestions given, and each hearer of becoming a disseminating influence for new ideas. If any hearer chooses to write out a report for a medical journal, and it is published as such, we do not see how any objection could be reasonably taken. The report when once made, be it long or short, full or in abstract, becomes the property of the reporter, as representing so much actual work on his part. Any society may vote that its official transactions shall be published in any particular journal, but we fail to see how it can prevent any other reports of its proceedings being made in the way any other periodical may see fit. The only way to keep to the letter of the contract is to sit with closed doors and hide the light under a bushel. As soon as the light is uncovered, however, it is free to all, each can appropriate it to his own purpose, all special privileges to the contrary notwithstanding.

#### DISTINGUISHED VISITORS—MR. CALLENDER AND DR. ANDREW CLARK, OF LONDON.

We announce with pleasure the arrival of two distinguished visitors from London, Dr. Andrew Clark F.R.C.P., who has been sent by the queen to accompany H. R. H. the Princess Louise and the Marquis of Lorne, and Mr. Callender, the distinguished surgeon of St. Bartholomew's Hospital. Both of these gentlemen are well known to the profession on this side of the Atlantic, and their presence among us as guests cannot fail to call forth our most cordial feelings of welcome. As will be seen, Dr. Clark proposes to utilize his short stay among us by presenting his views regarding the nature and treatment of diseases of the lungs. We have no doubt that his lecture on Tuesday next, at the Bellevue Hospital Medical College, will be interesting, and that the attendance on that occasion will prove to him that the profession in this country appreciate the value of his investigations. Mr. Callender will visit Philadelphia before making any stay in this city. On his return here it is to be hoped that he will likewise favor us with the results of his experience in that branch of our profession in which he has won so much deserved distinction. Both gentlemen come to us with prejudices in favor of the American medical profession, and each will doubtless take advantage of the opportunities for visiting our public institutions and studying our methods of practice. Let us hope that they will carry away with them such impressions as we shall be proud to have them entertain, and that their visits here, like those of Sir Henry Holland, Marshall Hall, Spencer Wells, Erichsen, Lister, Barnes, Adams, Simpson, and Lauder-Brunton, may serve to keep alive that cordiality of professional feeling which has so long existed between this country and Great Britain.



## Reviews and Notices of Books.

CLINICAL EXPOSITION OF THE MEDICAL AND SURGICAL DISEASES OF WOMEN. By ROBERT BARNES, M.D., F.R.C.P. Second edition. 8vo, 784 pp., with 180 illustrations. Philadelphia: H. C. Lea. 1878.

THE medical profession will undoubtedly give this new and revised edition of Barnes's work a hearty welcome. The author has given this edition a "conscientious revision," rearranged the matter, and made considerable additions thereto. A special feature of his work is its excellent and fairly complete exposition of "the anatomy of the pelvic organs." This subject is excellently illustrated by thirty-four drawings from Sappey, Savage, Kobelt, Richard, Racorski, Breisky, Farre, Hassall, and Tyler Smith, Lyon, John Williams, Kundrat, and by the author. The minuteness, at the same time conciseness of anatomical detail, and the assistance rendered by the woodcuts, must prove of great value to the student. A line drawn from the upper margin of the symphysis pubis to the lumbo-sacral articulation will strike the upper margin of the fundus of the uterus. Another line drawn from the lower border of the symphysis pubis to the lower margin of the fourth sacral vertebra will touch at its middle the point of the cervix," is Dr. Barnes's description of the normal position of the uterus.

"Conditions Demanding Local Examination" is an article well worth careful perusal. We cannot accept of teaching that we should postpone local examination in cases of dysmenorrhœa "so long as it does not exceed endurable bounds;" it is better to examine *all* cases, unless the cause is manifestly hysterical. We further think Dr. Barnes is in error in describing the transparent, viscid, mucous plug, so often found, as almost always, *in health*, found in the cervix, filling up the canal." It should be described as a supra-secretion, due to congestion or subinvolution, or cervical hypertrophy.

Uterine hemorrhages are admirably discussed. A most important injunction is: "*In all cases of hemorrhage coming from the body of the uterus, obtain and maintain free patency of the cervical canal.*" Too much stress cannot be laid upon this point. Gtt. v.-x. doses of tr. hamamelis (hamamelys here spelled) must be of slight value in a hemorrhage properly called. The reviewer must acknowledge the inestimable value of large doses of ext. ergot (Squibb) used subcutaneously; these failing, the tampon of tannic acid (3 ij.), or lum (so highly recommended by Thomas). The "significance of sterility" is summed up in all its bearings (pp. 112-120). "The significance of symptoms connected with the urinary organs and the rectum in relation to uterine and periuterine affections" (20 pages) forms the matter for the very valuable Chapter II. We are surprised, however, to find no mention made of incision of the bladder (artificial vesicovaginal fistula) for the cure of intractable cases of chronic cystitis. Chapter IV. describes the requisite gynecological instruments and *armamentarium*. All the instruments recommended are excellent, especially Küchenmeister's metrotome-scissors, Neugebauer's speculum, and the author's speculum for the patient's use; all are figured.

The physical "diagnosis of diseases of the pelvic organs" is admirably described, and meets the wants of the student. A full description of the introduc-

tion, selection, and uses of tents should have been incorporated in this chapter, instead of merely referring to this subject in describing the author's tent-carrier in the previous chapter, where only fifteen lines are given.

The author gives a very excellent *résumé* of our knowledge of normal menstruation in opening Chapter VI. His views are summed up thus by himself: "Admitting, however, as we must, the occasional operation of disturbing circumstances, the general law is that these phenomena (ovulation and menstruation) are reproduced periodically . . . ; consequently the ripening of the ova, and most frequently their deliquescence, are revealed outwardly by the *appearance of the catamenia*." Italics are his. Vicious menstruation receives considerable space. We are especially sorry to know that a man of Dr. Barnes's good sense and judgment recommends the straight-jacket in "extreme cases of erotic mania, and even in cases less severe," thus admitting either an unwillingness or an inability to treat such cases in a humane and rational manner.

"Disordered Menstruation" covers 76 pages, including "the irregularities of the climacteric epoch," and "the relations of menstruation to various diseases," and the subject is, one might almost say, exhaustively treated. We wish the author had been a little more lucid in regard to the amenorrhœa in phthisical subjects, and warned against all efforts at re-establishing the menstrual flow. In neuralgic dysmenorrhœa, we are advised, on p. 219, to give gr.  $\frac{1}{2}$  of atropia subcutaneously. This must be a typographical error, since such a dose would undoubtedly produce very severe "head" symptoms, and dilatation of the pupils to the production of temporary blindness more or less severe. Hoffman's anodyne is a favorite with the author, but in these cases it must be of doubtful efficacy when uncombined. Pages 261 to 265 lucidly show the influence of menstruation upon the nervous system. The diseases of the ovary are considered in a most admirable manner. It may truly be said that the reader can, in the four chapters (108 pp.) here devoted to the subject, find all he may desire to know concerning diseases of the ovaries and Fallopian tubes, their diagnosis and treatment. Excellent cuts (nine), drawn by the author, of specimens in various London hospitals and museums, serve to illustrate the text. It is impossible to give a condensation of even the author's views on ovariectomy alone, and we must be content to refer our readers to the work itself. We cannot leave this subject without calling attention to the fact that the author gives twenty-four pages alone to the differential diagnosis of ovarian tumors, and the article could not be more perfect. Three diagrams illustrate the text. Ovariectomy is minutely detailed. Thirty pages are devoted to extra-uterine (Dr. Barnes prefers ectopic) gestation. This is a clear gain to the owner of the book, since it is not, strictly speaking, a gynecological subject. This chapter (XIII.) presents an excellent exposition of this subject, and is fully up to date. "General Observations on Uterine Pathology: Effects of Labor and Lactation; Involution in Defect and Excess," form the subject matter of Chapter XVIII., which should be read by every student and practitioner. Chapter XIX. disposes of uterine fluxions, hyperemia, congestion, engorgement, and inflammations in a highly satisfactory manner. Although the treatment recommended is, in the main, judicious—especially in discountenancing intra-uterine injections—he lays too little stress upon the value of the hot-water vaginal douche. It is to be regretted the author did not devote more space to ulcerations of the

as and their treatment. Authors, it seems to us, should always caution the physician that the use of pure nitric acid, acid-nitrate of mercury, etc., generally produces subsequent undue contraction, usually stricture, of the uterine canal, especially of the external and internal os.

Chapters XX. and XXI. on "Pelvic Inflammations" and "Perimetritic Hematocoele" respectively, are very full and satisfactory. The author disagrees with Dr. Thomas as to the differential diagnosis of pelvic peritonitis and pelvic cellulitis, except in rare cases, as he considers both inflammations occur simultaneously, without the predominance of one or the other. Simple opium we prefer to opium and *calomel* (preferred by Dr. Barnes) in this disease; furthermore, atropia is a much better remedy for hicough than the agents mentioned on page 508 (bismuth, hydrocyanic acid, pepsine, creasote, ice, soda-water). One of the best chapters in the book is Chapter XXII. on "Displacements of the Uterus." Copiously illustrated, he must indeed be stupid who cannot thoroughly understand the subject after carefully reading this chapter. The author's elucidation of this subject, including the manner of introducing pessaries (illustrated), is especially valuable to the student. Then comes "Inversion of the Uterus," a chapter of twenty pages, of great interest and practical value.

Tumors and cancer of the uterus occupy 100 pages. We must refrain from any extended review of the author's treatment of the pathology of this subject, and content ourselves with summarizing his views as to treatment.

1. Medicines are almost, if not quite, powerless to promote the absorption, or resorption of tumors of the uterus.

2. The possibility of restraining their growth by the use of ergot requires more conclusive evidence.

3. Galvano-puncture would seem to promise good results in this direction.

4. Enucleation is not an encouraging practice, but may be employed in certain cases.

5. Removal by the *écraseur* or loop is always to be preferred when possible.

6. Laparotomy is a justifiable operation.

7. "The justification for attempting enucleation, avulsion, or other mode of removing large fibroids will rest upon: 1. Uncontrollable hemorrhages endangering life. 2. Signs of sloughing or decomposition of the tumor, with present or threatening peritonitis or pyæmia. 3. Dangerous pressure upon the bladder and rectum. 4. Such great size as to cause dangerous pressure upon the abdominal and thoracic viscera."

The author lauds the galvano-cautery as the best agent for the amputation of the cervix in cancer.

Diseases of the vagina and vulva, and coccygodynia close the volume proper, although there is a very full "index to authors," the works of the major portion, Dr. Barnes says, he has consulted.

The author does not write in the spirit of a "specialist," but grounds himself on broad views, and elucidates his subjects from the standpoint of a general practitioner. Indeed, he warns against falling "into the deplorable snare of becoming a specialist" (p. 157). He further says, "How absurd it is to map out the body, and assign particular territories to particular classes of practitioners."

One typographical error—there are very few in the book—on page 396 should be corrected; in line four from the bottom, the word "tear" should be *scar*.

We very confidently recommend "Barnes" to the student of medicine as supplying him much which is

not to be found in other books, and to the practitioner as being a most practical and sound book of reference, second to none.

VISIONS: A STUDY OF FALSE SIGHT (PSEUDOPTIA). By EDWARD H. CLARKE, M.D., pp. 315, with a photograph of the author. Boston: Houghton, Osgood & Co. 1878.

STRICKEN with a most painful and fatal disease, we simply wonder that the author could have concentrated his mind upon any subject whatsoever. In spite of the acute physical and mental suffering, Dr. Clarke has written a work wherein true philosophy has been added to a vast knowledge of the latter day physiology of the mind and nervous system. Accepting the theory of cerebral localizations, first promulgated by Bouillaud, supported by Broca, and more recently advanced by the researches of Fritsch and Hitzig, Ferrier, and others, as a fact, the author has built his theory of the mechanism of false sight upon Ferrier's deductions from his experiments upon the gray cortex of the cerebral convolutions, especially of the *angular gyri*. The hypothesis which Dr. Clarke develops is certainly ingenious. It will explain a host of the visions seen both in health (apparent) and disease.

The author cites such cases *in extenso* in his book and satisfactorily explains them according to the views he promulgates. In spite of these satisfactorily explained cases, there are others which remain just as much in the dark as ever, notably the vision of Lord Brougham, the details of which are herein given. However satisfactory to some Dr. Clarke's explanation of this particular case may be, honesty compels us to admit his failure. Undoubtedly Lord B. was in the habit of enjoying the luxuries of a warm bath, hundreds of times previous to the memorable evening without seeing any visions; is it not singular that on the *very day* on which Lord B. took that bath and saw the image of his friend, whom he had neither heard of or from for many years, sitting on the chair whereon Lord B. had deposited his clothes, *that friend had died in India*? We are no Spiritualists, in fact a confirmed skeptic, but we certainly cannot accept the explanation of this occurrence, which our author holds to us.

In spite of our present knowledge in physics and metaphysics, we must admit, with Hamlet, that "there are more things in heaven and earth, Horatio, than are dreamt of in your philosophy." Whatever the future of cerebral localizations may prove, however much one may be opposed to their acceptance, we can truly say that the work before us will amply repay perusal, not only by the professional, but by the philosophically inclined lay readers. It has a general as well as special interest; and while we cannot go as far as some of its reviewers, in saying "it knocks away one of the strongest pillars of Spiritualism," we feel convinced that a long stride has been taken in this direction, and that the future will supplant Dr. Clarke's theory by facts which will psychologically explain Spiritualism so called. It is only necessary to remind our readers that this volume is from the "Riverside Press," to assure them of the excellence of its mechanical execution.

THE TREATMENT OF DIPHTHERIA. Based upon A NEW ÆTIOLOGY AND PATHOLOGY. By WILLIAM C. REITER, A.M., M.D. Philadelphia: Lippincott & Co. 1878.

The author believes the predisposing cause is epidemic, "but the disease is neither infectious nor con-



agious." The essential pathological condition is *hyperinosis*. Von Niemeyer's "anatomical appearances" are accepted as the perfect description, and the anatomical changes, such as the exudation, enlargement of the tonsils, their necrosis, and all the other nutrient alterations (kidneys, spleen, etc.), are ascribed to brinous plugs in the capillaries. Now, the treatment *par excellence* is *large and often-repeated doses of calomel!*

This is based upon Brown-Séquard's dictum, that no less than 26,909 mm. of fibrin are daily lost to the blood in its passage through the digestive organs and the liver." Diphtheria interfering with this waste of fibrin, and calomel being the great cholagogue and defibrinator, *ergo*, calomel is the curative agent for diphtheria!

Dr. Reiter reports the history of five cases, one of which died. He claims to have treated at least one hundred cases during the epidemic of 1863 and since, but whether all successfully is not stated.

The calomel, he maintains, must be given pure, gr.  $\frac{1}{2}$  every hour, in water or milk, "until the intestinal discharges resemble the fresh-water polyps in water-troughs, gelatinous, and of a bright dark-green hue."

We live in the days of specifics, to be sure; nearly all the articles of the pharmacopœia have been lauded as "specifics" in diphtheria; bacteria swarm—whether upon the tonsils and pharynx, or upon the eyes of the expert microscopists, we shall not discuss—carbolic acid and other bactericides have been supposed to be the remedy for this scourge, and now comes calomel!

For our part, we believe there is no specific for diphtheria, unless a supportive treatment be considered such. Despite Dr. Reiter's laudation, we have not sufficient moral courage to use a remedy which so powerfully devitalizes the system as calomel, when the very essence of the disease is a loss of vitality, analogous to the condition in ileo-typhus and other continued fevers. Not believing in the author's etiology or pathology, or in the bacteria theory, for that matter, we think, as Prof. H. C. Wood, Jr., wrote the writer, that "Pittsburgh children are hard to kill;" and, further, we prefer to have his diagnosis verified, and to peruse his mortality list in proportion to the number of cases treated, before deciding upon the use of a treatment which, on its face, appears to be calculated to hasten the fatal event.

**A MANUAL OF NURSING.** Prepared for the Guidance of the Nurses in the Training-School at Charity Hospital, B. I. By EDWARD FRANKEL, M.D., one of the Visiting Surgeons to the Hospital, etc. 16mo, pp. 120. The Department Press. 1878.

Dr. FRANKEL deserves the hearty thanks of the many nurses who may have the good fortune to possess this little volume. The author gives most excellent advice to those who are about to engage in the vocation of nursing, keeping the fact prominently in mind that the nurse should always follow the physician's orders implicitly, and never attempt to assume any responsibility outside her own duties in the treatment of the patient.

Herein the reader will find concise rules for the selection and care of the sick-room, for ventilation and disinfection, the management of warmth and light in the sick-room, the arrangement of the bedding of the patient, prevention and care of bed-sores, the selection and care of the patient's clothing, cleanliness, and diet, the administration of internal and external remedies, the use of leeches and cups, surgical dress-

ings, assisting at operations, precautions against the spread of contagious diseases, nursing in pregnancy and child-bed, in insanity, and the duties of nurses in emergencies. Weights and measures, and the definition of medical terms are also appended. The value of this book is very apparent from this index to its contents, and we earnestly recommend that all who are attending upon the sick as a vocation shall purchase it for careful study and future reference.

**HOW TO BE PLUMP; OR, TALKS ON PHYSIOLOGICAL FEEDING.** By T. C. DUNCAN, M.D. 12mo, cloth. Chicago: Duncan Brothers, Publishers.

Is a volume of sixty pages. Although written by a homœopath, Black ("On Laws of Health"), Harvey ("On Corpulence"), Weir Mitchell, Lehmann, Wagner ("Pathology"), John Hutchinson, Dalton, Lethely, Pavy, and others, form the foundation for the structure of a very concise, interesting and practical answer to the question, "How to be Plump." "Leanness, when it cannot be referred to a satisfactory cause, must be accounted a disease." "Leanness depends upon either predisposing or on exciting causes." Dr. John Hutchinson's table is taken as the standard weight per stature, *i. e.*, five pounds increase per inch over sixty-one inches, the equivalent of the latter figure being one hundred and twenty pounds. There are other valuable tables in the book. Plenty of water (not drunk to excess, however), considerable fatty food, a generous supply of hydrocarbons (starch, sugar, etc.), and an abundance of milk, as well as a generous diet in general, with mental quiet and plenty of sleep, will, according to the author (and authors generally), fill out the lean with a wholesome aldermanic rotundity, oil the wheels of life, and make all run the more smoothly therefor. This book is not only interesting to the medical man, but would be valuable to the laity.

## Reports of Societies.

### MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Adjourned Annual Meeting, November 25, 1878.*

Dr. J. C. PETERS, PRESIDENT, IN THE CHAIR.

UNDER the head of unfinished business, the Society went into committee of the whole, and Dr. ELLSWORTH ELIOT was called to the chair.

Proposed amendments to the By-Laws were then read, and the committee recommended their adoption. The committee arose, the chairman reported the recommendations, and they were adopted by the Society.

#### REPORT OF THE COMMITTEE ON HYGIENE.

Dr. E. G. JANEWAY, chairman of the committee, presented the report, which showed a marked improvement in the health of the city during the past year.

The following points were noted as possessing interest:

With reference to small-pox, it was reported that only *two* deaths had occurred in the city from that disease during the present year, and one of those occurred in a non-resident. At no time since 1822 had there been so few deaths from small-pox as during the present year.

It was reported that 57,000 gratuitous vaccinations had been performed.

Commenting upon the question of vaccination, Dr. Janeway remarked he had, after a careful consideration of the subject, reached the conclusion that there were many points which made the *persuasive* vaccination preferable to the *compulsory*. Compulsory vaccination did not favor re-vaccination, while, with persuasive vaccination, re-vaccination was obtained in a large proportion of cases. It was to the persuasive vaccination that he attributed the marked exemption which the city had at the present time from small-pox.

There had been exhibited no marked fluctuation in the number of cases of this disease during the present year.

The same was said of measles.

The number of deaths from diphtheria and membranous croup during the past nine months was 1,091, which was markedly less than for any year since 1873.

The statistics showed a marked diminution in the number of deaths from typhus and typhoid fevers, there being absolutely a less number of deaths than in the year 1848, notwithstanding the population of the city since that time had been a little more than doubled.

The statistics showed an increase in the number of deaths from malarial fevers as compared with the mortality from these diseases during any year since 1866. Dr. Janeway believed that a part of the increase was due, probably, to the extensive excavation made for the elevated railroads.

The statistics showed that a less number of deaths had occurred from diarrheal diseases during the present year than during any year since 1866. The number of deaths was 500 less than in the year 1877, and nearly 1,000 less than in the year 1876.

The number of deaths was markedly less than ten years ago, notwithstanding the increase in the population of the city since that date.

Dr. Janeway was inclined to attribute the decrease in the number of deaths, in considerable measure at least, to the general advice given by the special corps of physicians appointed to go in search of cases which were not under medical treatment.

During the last three summers *fifty* physicians had been appointed, who searched for cases not under medical treatment, and gave general advice with reference to the management of infants during the heated season. Much had also been done toward saving the lives of children by the St. John's Guild and other organizations.

Special mention was made of the benefit to public health which had followed the services of the special medical corps, because an application for money with which to continue the same beneficial work had, for certain economical reasons, been declined.

Dr. J. C. PETERS, chairman of the committee on the

#### YELLOW FEVER FUND,

made a report, with the substance of which the readers of the RECORD are already familiar.

#### ADDRESS OF THE RETIRING PRESIDENT.

After the transaction of other business,

THE PRESIDENT delivered his closing address, in which reference was made somewhat in detail to the work performed by the Society in certain special directions during the past two years. The attention of the Society was called to one subject, which the retiring President regarded as specially important, namely,

#### REGULATION OF THE PRACTICE OF MIDWIVES.

An account was then given of the method by which certificates were obtained by women who were practicing midwifery, and it was believed that they should be made the subjects of legal regulation.

Reference was also made to the action of the Society upon the question of disturbance produced by the elevated railroads, and although ninety-nine-one-hundredths of the inhabitants were benefited by the structures, the President thought we had no more right to turn a deaf ear to those who suffered unnecessarily from such cause than had they suffered from any other noxious influence.

With reference to yellow fever, it was believed that a careful study of the disease would enable us to keep it out of this country, and also that when an epidemic appeared it could be quickly stamped out.

In closing, Dr. Peters welcomed his distinguished successor to the office of President of the Society.

DR. ELLSWORTH ELIOT offered a resolution of thanks to the officers of the Society for the fidelity with which they had discharged their duties during the past year.

Unanimously adopted.

The Society then adjourned.

*Stated Meeting, November 25, 1878.*

DR. FREEMAN J. BUMSTEAD, PRESIDENT, IN THE CHAIR.

#### PRESIDENT'S ADDRESS.

The President, DR. FREEMAN J. BUMSTEAD, called the Society to order, and then proceeded to deliver his inaugural address. After returning thanks for the honor the Society had conferred upon him, the President passed to the consideration of the objects for which the Society was organized. 1. To aid in regulating the practice of physic and surgery; and 2. To contribute to the diffusion of true science, and particularly to the knowledge of the healing art.

Reference was then made to the duties of the respective officers of the Society and its committees.

With reference to hygiene, one of the strongest claims which the public had upon the profession was their services as sanitarians. The cultivation of medical science had been placed second among the objects for which the Society was organized, but it should not be regarded on that account as the least important. Dr. Bumstead believed that no medical society could flourish in these days unless it had for its basis true medical science. It was his desire that the regular meetings for the year should be devoted to the reading of papers and the discussion of subjects which would best contribute to the establishment of such a firm basis. Matters other than strictly scientific could be considered in special meetings.

The President announced the standing committees as follows:

*Committee on Hygiene.*—Dr. J. C. Peters, chairman; Dr. E. G. Janeway, Dr. C. C. Lee, Dr. G. B. Fowler and Dr. A. B. Judson.

*Committee on Ethics.*—Dr. Robert A. Barry, chairman; Dr. R. J. O'Sullivan, Dr. F. Zinsser, Dr. S. Caro, and Dr. F. V. White.

*Committee on Registration.*—Dr. A. E. N. Purdy, chairman; Dr. W. T. White and Dr. H. F. Hanks.

*Committee on Prize Essays.*—Dr. Fordyce Barker, Dr. A. Flint, Sen., and Dr. Ellsworth Elliott.



*Auditing Committee.*—Dr. Ellsworth Eliot and Dr. Wm. M. Chamberlain.

The paper for the Stated Meeting in December will be read by Dr. C. Heitzmann.

The Society then adjourned.

## Correspondence.

### THE DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I have read with interest your editorial in the issue of the 2d inst., relating to the above subject, and followed by a communication from Dr. W. B. Neftel, published in the MEDICAL RECORD of the 9th, and also one in your last issue, from Dr. Joseph A. Mudd.

I am led in this connection to air a theory of the generation of the sexes, which, if correct, will throw more light upon this mysterious subject of embryology, and will explain the law discovered by M. Thury, Professor in the Academy of Geneva, and referred to in Dr. Mudd's communication.

Observations and inquiries carefully made with a view to determine the correctness of this law have established its truth, in my own mind, beyond a question.

My experience extends over nearly eight years of obstetric practice, and in every case where I can obtain sufficient and accurate data upon which to base my calculations, I am able to predict the sex previous to delivery. The law is substantially this, viz.:

Conception resulting from intercourse subsequent to the menstrual flow will result in female offspring; while conception from intercourse in the latter half of the menstrual period, or previous to the menstrual flow, will result in male offspring. And it appears to me that a rational explanation is offered by the theory which I propose.

The theory is based upon the supposition that there are both male and female sperm-cells, and that the female sperm-cells are vastly in excess of the male; while the male cells are stronger, more active, and more progressive. Such being the case, a coitus taking place just before or at the time of the menstrual flow, and while the ovum is still high up, would be most likely to result in the impregnation of the ovum either at the fimbriated extremity or within the Fallopian tubes by a male cell, whose greater strength and activity would enable it to reach the ovum first.

A coitus taking place later, while the ovum is retained within the uterus, where it would be exposed to the immediate contact of a large number of sperm-cells—the female cells being largely in excess—the probability of its being impregnated by a female cell would be enhanced just in proportion to the disparity of numbers. To explain why the sperm-cell producing power of the male should be expended in the production of a large preponderance of female cells is, perhaps, no more difficult than the solution of many of the knotty problems of physiology that are yet unsolved, and in regard to which we are all at liberty to conjecture. Is it not possible that hereditary developmental influence coming direct from the mother and inherent in the male, coupled with a sexual influence, ever more or less present, of the female over the

male, may be instrumental in bringing about such a result.

In connection with the theory proposed, it would be interesting to know if the sex of abdominal and tubal pregnancies were more frequently male than intra-uterine pregnancies. I regret that I am not able to produce statistical evidence upon this point.

Truly yours,

H. U. UPJOHN, M.D.

KALAMAZOO, MICHIGAN, Nov. 25th.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 24 to November 30, 1878.*

TAYLOR, B. D., 1st Lieut. and Asst. Surgeon. Upon abandonment of Fort Rice, and until further orders, assigned to duty at Fort A. Lincoln, D. T. S. O. 139, Dept. of Dakota, Nov. 24, 1878.

### Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 30, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Nov. 23, 1878. | 0             | 10             | 103            | 3                          | 5        | 68          | 0          | 0             |
| Nov. 30, 1878. | 0             | 10             | 100            | 3                          | 3        | 53          | 0          | 0             |

THE SUIT AGAINST THE MEDICAL RECORD for libel, instituted by Dr. W. A. Hammond four years ago, and based upon our criticisms of his article in the *New York Tribune*, on Hydrophobia, has been recently withdrawn by that gentleman.

COMA AND ALCOHOL.—Dr. Macewen, of the Glasgow Infirmary School of Medicine, lays down the rule that an insensible person, who, being left undisturbed for from ten to thirty minutes, has contracted pupils, which dilate on his being shaken, without any return of consciousness, and then contract again, can be laboring under no other state than alcoholic coma.

DR. ANDREW CLARK, F.R.C.P., of London, "Physician to the London Hospital for Diseases of the Chest," Lecturer on Clinical Medicine, and Diseases of the Lung in London Hospital, Consulting Physician to the East London Hospital for Children, and the St. Andrew's Hospital; author of the "Anatomy of the Lung," "Evidences of the Arrest of Phthisis," and numerous other papers in connection with this subject, will deliver a lecture on the Diseases of the Lung, illustrated by original drawings, in the lecture-room of the Bellevue Hospital Medical College, on Tuesday, Dec. 10th, at 1:30 P.M. The medical profession and medical students from all colleges are respectfully invited to attend.

AUSTIN FLINT, M.D., Secretary.

**DR. GROSS ON CREMATION.**—Professor S. D. Gross, of Jefferson Medical College, has been giving his ideas on the subject of cremation to a reporter of one of the Philadelphia daily papers.

"If people could see the human body after the process of decomposition sets in, which is as soon as the vital spark ceases to exist," said Dr. Gross, "they would not want to be buried; they would be in favor of cremation. If they could go into a dissecting-room and see the horrid sights of the dissecting-table, they would not wish to be buried. Burying the human body, I think, is a horrible thing. If more was known about the human frame while undergoing decomposition, people would turn with horror from the custom of burying their dead. It takes a human body fifty, sixty, eighty years—yes, longer than that—to decay. Think of it! The remains of a friend lying under six feet of ground, or less, for that length of time, going through the slow stages of decay, and other bodies all this time being buried around these remains. Infants grow up and pass into manhood or womanhood; grow old and get near the door of death, and during all that time the body which was buried in their infancy lies a few feet under ground in this sickening state, undergoing the slow process of decay. Think of thousands of such bodies crowded into a few acres of ground, and then reflect that these graves, or many of them, in time fill with water, and that water percolates through the ground and mixes with the springs and wells and rivers from which we drink.

"People turn with dread from the subject of cremation," he said. "Why, if they knew what physicians know, what they have learned in the dissecting-room, they would look upon burning the human body as a beautiful art in comparison with burying it. There is something eminently repulsive to me about the idea of lying a few feet under ground for a century, or perhaps two centuries, going through the process of decomposition. When I die I want my body to be burned.

"Any unprejudiced mind needs but little time to reflect in forming a conclusion as to which is the better method of disposing of the body. Common-sense and reason proclaim in favor of cremation. There is no reason for keeping up the burial custom, but many against it, some of the most practical of which are but too recently developed to need mention. There is nothing repulsive in the idea of cremation. People's prejudice is the only opponent it has. If they could be awakened to a sense of the horror of crowding thousands of bodies under the ground, to pollute in many instances the air we breathe and the water we drink, their prejudice would be overcome.

"Cremation would be taken for what it truly is, a beautiful method of disposing of the body. The friends of the departed can do as they please with the remains. Take the ashes of a wife or daughter and put them in an urn. Place it on your mantelpiece or in as private a place as you please. Strew them on the ground if you like, and let them assist in bringing forth a blade of grass. This would be an advantage over the burial method, where human bodies only cumber the ground."

**THE NEW YORK SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.**—The thirty-sixth annual meeting of the Society was held at the New York Academy of Medicine on Wednesday, November 27th, Dr. James L. Banks, President, in the chair. From the printed annual statement of the Treasurer, it appeared that the Society, during the year, had extended aid to 12 widows and 4 children of deceased

members. The income of the Society for the year was \$7,550.69, including premium on gold, expended to annuitants, \$4,302.75, indispensable expenses, printing, safe, etc., \$53.95. The total assets amount to the sum of \$123,172.35. The Society proceeded to its annual election, which resulted as follows: *President*, Dr. Samuel T. Hubbard; *Vice-Presidents*, Drs. Jared Linsly, Isaac E. Taylor, and S. S. Purple; *Treasurer*, Dr. John H. Hinton. *Managers for a Term of Three Years*.—Drs. James L. Banks, Gouverneur M. Smith, Joel Foster, T. C. Fennell, Adoniram B. Judson, John W. Warner, and Thomas F. Cock.

Dr. H. J. BIGELOW, of Boston, is on a visit to England and is explaining the uses of his new instruments for rapid lithotripsy. He is very justly the recipient of marked attention by the leading surgeons in London.

**TRICHINÆ IN FISH.**—A sensational story is started in England to the effect that certain pike, taken near Ostend, were found to be full of trichinæ. It is quite probable that these parasites are nothing more than the intestinal worms which invested the Hudson River shad last spring.

**PATHOLOGICAL LABORATORY.**—Pursuant to a vote of the Faculty of the College of Physicians and Surgeons, at a meeting held on October 31, 1878, I have the honor to forward for publication the following preamble and resolutions:

*Whereas*, The Association of the Alumni of the College of Physicians and Surgeons has informed this Faculty that it has equipped and endowed a Pathological Laboratory for the use of students of this college, to be known as the Pathological Laboratory of the Alumni Association of the College of Physicians and Surgeons; and,

*Whereas*, The Alumni Association has indicated Prof. Francis Delafield as its choice for Director of the same; therefore, be it

*Resolved*, By the Faculty of the College of Physicians and Surgeons, Medical Department of Columbia College, in the City of New York, that this Faculty can not too heartily express its thanks to the Alumni Association for this important and much-needed addition to the educational resources of the college, nor too warmly express its appreciation of the public spirit of the individual graduates, whose generosity has made the founding of the said laboratory possible.

*Resolved*, That the choice, indicated by the Alumni Association, of Prof. Francis Delafield for Director of the Laboratory, meets with the cordial approbation of this Faculty.

*Resolved*, That it is hereby respectfully recommended to the Board of Trustees that the office be created in this college of Director of the Pathological Laboratory of the Alumni Association of the College of Physicians and Surgeons, and that Prof. Francis Delafield be appointed to the said office.

*Resolved*, That the Secretary of the Faculty is hereby instructed to communicate this preamble and these resolutions to the Board of Trustees; and, in the event of the recommendations therein contained being carried into effect by the Board of Trustees, to read the said preamble and resolutions to the Medical Class, to publish them in two medical journals, and to forward a copy of them to the Secretary of the Association of the Alumni.

Very respectfully yours,  
JOHN G. CURTIS, M.D.,  
Secretary of the Faculty



## Original Lectures.

## VARIETIES OF PULMONARY PHTHISIS.

A LECTURE DELIVERED IN BELLEVUE HOSPITAL  
MEDICAL COLLEGE, DEC. 10, 1878.

By ANDREW CLARK, F.R.C.P., OF LONDON,

PHYSICIAN TO THE LONDON HOSPITAL FOR DISEASES OF THE CHEST,  
LECTURER ON CLINICAL MEDICINE AND DISEASES OF THE  
LUNG IN LONDON HOSPITAL, ETC., ETC.

(Phonographically reported for THE MEDICAL RECORD.)

## PART I.

GENTLEMEN:—When I desired to have the privilege of exhibiting to you these drawings of the varieties of phthisis and of setting forth in short and simple outline the views which, after some study of the subject, I had formed concerning them, I did not presume to think that in a city so distinguished as this for its knowledge of the disease, and in the presence of men who have not only largely contributed, and happily, are still contributing, to that distinction, I could communicate much of anything new; still, I desired to show you these drawings that I might have the benefit of your friendly criticism, and learn from that how far they were correct and are confirmed by your experience.

I should have been very glad, and it would have been profitable, as well as interesting, to have begun this discussion with a historical and critical view of the theories which have prevailed in medicine with respect to the nature and varieties of phthisis, and I should have been especially glad to have done this, because it would have given an opportunity for paying a just tribute of sincere admiration to one from whom I learned much, and from whom, I hope, you have learned a great deal more: one amongst you, for whose acute powers of observation, for whose largeness of experience, for whose courage in not saying what he might say, as well as adding to the knowledge of this subject, is deserving of the warmest gratitude of every student of pulmonary pathology. I need not say that I allude to your illustrious countryman, Dr. Austin Flint. But neither the time, nor the circumstances, nor the object of this lecture, will permit me to do this. I must content myself with a simple and short outline of the subject, trying so to connect that outline by ideas that it shall remain alive in your minds, and be capable of being affected by your own experience hereafter.

I will give you the definition of the term phthisis. I understand by the term phthisis the assemblage and progression of symptoms which are due to an ulcerative or suppurative destruction of more or less circumscribed non-malignant deposit in the lung. I do not claim for this definition that it is a perfect one: I am sensible of its defects, but I claim for it that it is a good working definition, and that it includes all the hypotheses; and whatever our views of phthisis may be, it may without prejudice continue to be used. Now you will observe by this definition that I have shut out altogether the disease called acute tuberculosis. I have purposely done so, for in all its methods of advancement and methods of progression, and in the phenomena which attend them in the different states of the body which accompany their development, and in the phenomena in its post-mortem appearances, and in everything which constitutes the clinical history of the disease, this acute tuberculosis

is more intimately allied to fever than to phthisis. Now I go further, and say that it has no more intimate and necessary relation to phthisis than pneumonia, and I doubt if it has so much; for it would not be possible for any one with large experience in the disease, to say that in the course of it he had met with more than one or two examples in which the little bodies disseminated through the body which constitute the anatomical peculiarity of phthisis, have ever run together or broken up into cavities, bringing it within the pale and definition of phthisis. I do not say that it never occurs, but it occurs so rarely that it renders it unnecessary to take it into consideration, and I set aside from the question of phthisis altogether the disease called acute tuberculosis. I have one remark more to make bearing upon this point. You know that some years ago Villemin experimented upon rabbits, producing what was then called tuberculosis. At the same time, with the assistance of two of my colleagues, I was also experimenting, and I discovered that not tuberculous matter merely, but almost any matter injected into the neck of the rabbit, would be followed by symptoms which some would call acute tuberculosis; that is to say, the inoculation of pus into the neck of the rabbit was followed in eight or nine days by an eruption of little bodies resembling tubercles scattered throughout the body. You also know that nine-tenths of those who have written up on the subject yet believe, both in England and in this country, that it is acute tuberculosis, and I introduce the subject for the purpose of entering my protest against such views. Now, in all the animals the phenomena observed were as follows: there was, after the inoculation, a little fever; and I defy anybody to cut an animal, however slightly, without producing a little fever. After eight or nine days there was an eruption of what, we will admit for the moment, was tubercles. Following this peculiar eruption, if the rabbits were kept in tolerably favorable circumstances, the entire process of so-called tuberculosis passed away and the health of the animal was entirely restored. Now it seems if we are to call that acute tuberculosis, we are using language wrongly, for there is nothing in this disease, which attacks adults or children, that prevents ill-effects upon the system. It develops the phenomena of fever, which fever progresses more or less regularly, and at the end of three to six weeks the case terminates in death. With this brief reference to acute tuberculosis, I will dismiss this portion of the subject.

When now we examine the lungs of patients dead of phthisis we may, I think, be justified in classifying the diseased lungs into three distinct groups. I may say, we can do that without great degree of refinement, and we can classify them according to what is apparently the dominant element of destruction in the lung. In one group, obviously, the dominating anatomical element is what is called tubercle. In the second group the dominant destructive agent is some sort of pneumonic exudation. In the third group the dominant element is some kind of fibroid tissue. Wherefore at this stage we are permitted to say there are three varieties of phthisis, speaking after their anatomical elements: one in which the tubercle is the dominating element—tubercular phthisis; one in which some kind of pneumonic exudation is the dominating element—pneumonic phthisis; one in which some kind of fibroid tissue is the dominating element—and we call it fibroid phthisis.

Now, we are at once brought face to face with one of the difficulties surrounding this disease which makes it quite difficult for the student to understand.

When I say that one of these varieties may be called tubercular phthisis, I have said, and I now repeat it, that the dominating destructive agent is tubercle. But tubercles when deposited in the lung irritate it, and as there are very different textures in the lung—simple cellular textures and simple fibrous textures—they excite in these textures secondary changes. In tubercular phthisis these changes are of two kinds, which are always more or less prominent.

When tubercle is deposited in the lung, and gives rise to irritation, it either affects the cell structure of the lung, producing some sort of pneumonia, or it affects the fibrous connective-tissue element of the lung, producing some sort of fibroid complication. And these secondary complications occur in variable degrees, so that, in some cases of tuberculous lung, there is a very large quantity of fibroid material with but little pneumonic material; while in other cases there is a large quantity of pneumonic material with but little fibroid material. You will see, by and by, that this is an important point with regard to the history of phthisis: for according as the secondary complication is pneumonic or fibroid, so is the clinical history of every case of phthisis. Now that being so with regard to tubercle, we have the same effect with regard to pneumonia. Pneumonia occurs alone, but when the pneumonic exudation is not absorbed, when it remains and disintegrates in the lungs, a new source of irritation, so to speak, is established, which begets a secondary irritation, and we may have complicating pneumonic phthisis fibroid tissue, or we may have even the deposit of tubercle. The same thing may be said of fibroid phthisis, although fibroid phthisis which has fibroid tissue for its destructive agent may occur alone, and does so occur more frequently than the other forms, yet it sometimes may have as a secondary complication either the cheesy or tuberculous change.

Now there is a second kind of complication of which I wish to speak before I proceed further. We all understand what is meant by tubercle, but we do not, probably, all understand what is meant by pneumonia. There are at least three anatomical varieties of pneumonia which may be mentioned at this point. There is the common form of croupous pneumonia, which occurs as an acute disease and usually affects the base of the lung, the anatomical element of which is a cell something like the white cell. It runs its course in from seven to nine days, and usually terminates by the melting and absorption of the exudation, and final restoration to health.

But there is a second form, which has received the name of caseous pneumonia, of which we have an example illustrated in this diagram. This caseous pneumonia, as you all know, presents a peculiar appearance to the naked eye. The exudation looks like moist cheese, and the anatomical element is chiefly an epithelial-like cell.

There is a third variety, which is called catarrhal pneumonia, that is, a kind of pneumonia which occurs in connection with bronchitis.

Now the last of these three forms of pneumonia is capable of producing an exudation, which, not being absorbed, undergoes retrogressive changes, and brings the case in the pale of our definition of phthisis. But it will not be necessary to allude to this to-day, and I will omit the question of catarrhal pneumonia altogether, not only because it is debatable ground, but because it would be difficult to make it clear. I will content myself with alluding to common croupous and common cheesy pneumonia as conditions in phthisis.

There is one more difficulty: I think that any one, by looking at these diagrams, will admit that their ap-

pearances are sufficiently distinct to warrant dividing them into three groups. There is another difficulty still. It is claimed by pathologists in France, and by many in England, and by many in America, that however unlike all these appearances may be, although tubercle, a little yellowish, grayish body, standing out upon the cut surfaces of the lung, may appear very different from cheesy pneumonia, that histologically and structurally they are homologous, and that caseous pneumonia is nothing but infiltrated tubercle. Nay, some pathologists go a little further, and, straining the use of language, will say that in these fibroid lungs the fibroid masses are still homologous with tubercle; that you do not see the tubercles there, but that the tubercles were once there, and as they were formed they were converted into fibrous tissue, and that from the fresh fibrous tissue so formed at any time may be developed distinct tubercle. This is, I say, straining language further than it is warrantable, but it is still held as an argument by able observers in England.

I will not give way to this argument but I repudiate the histological doctrine that these forms of pathological degeneration in lungs are one, but it will not be necessary to enter into this subject to-day, because I think I have a much higher argument in defence of my views in reference to these changes. That argument is this: I think the truest criterion to the difference in pathological products is not to be found in an anatomical structure. It is to be found in the life history, so to speak. This I take to be the most important point with reference to diagnosis, for forms of anatomical expression are but few, consisting chiefly of cells, fibres, and granules; in fact, we can enumerate the destructive elements of disease upon our fingers, while the dynamic states of which they are an expression may be many. Furthermore, there are forms of anatomical expression which clearly recognize different life states. For instance, one which occurs to me:—When we place under the microscope a section of a tubercle and a section of Peyer's gland from a typhoid-fever patient, I should like to know who has ever been able to distinguish between the two. The morphological changes are the same, but there are important clinical differences in the diseases which have given rise to these morbid changes. So, I say, we have for the present a structural argument; but I place the argument for distinction upon a much higher ground, and I repeat that the true criterion of difference between the pathological changes is to be found much more certainly in their life histories than in their final anatomical expressions. Before leaving this question, I will make another observation in regard to structural characters, namely, that the characteristic anatomical element of tubercle is the lymphoid cell; that the distinguishing character of catarrhal pneumonia is the epithelial cell, that the distinguishing character of fibroid degeneration is a fibroid mass with fibro-cellular elements in it. Now, the question arises whether such mere pathological curiosities which can be distinctly recognized in the dead-house can find adequate expression in the wards of the hospital. If that were so, I should be content to leave them where they are, but I think these distinctions are not merely pathological curiosities, for if I follow them into the wards there can be recognized much more distinctly than in the dead-house, these three groups of phthisis which have been anatomically characterized. The better to illustrate what I have said, I will sketch the history of a case from each group.



First, I will give a representative case of tubercular phthisis, that form of phthisis in which the dominant anatomical element is tubercle plus the secondary consequences in some form of pneumonia and some kind of fibroid tissue. We shall suppose the disease occurs in a girl about eighteen years of age. She has been for some time ailing, has been losing in flesh, strength, and color. She has large pearly conjunctivæ, flushing cheek, and early symptoms of exhaustion. When the doctor finds her in this condition he makes a physical examination of the chest, and finds nothing which will account for the phenomena and constitutional disturbance. By and by, she begins to have fever in the evening, and as yet no evidences of lung trouble can be found. Perhaps six months after the beginning of this the physician discovers simply a crepitation at the summit of one lung, and he now knows definitely that the case is one of tubercular phthisis. Then begins cough, expectoration, and irregular fever.

The extension of the disease is steady, but the constitutional symptoms take the lead of local signs. The patient goes on, the disease gradually progressing, and probably within four years, at most, the case comes to an end. Now, before leaving that class of cases, let me make a further observation—that the slowness or rapidity with which the case progresses, depends upon the secondary complication. I think it is almost an axiom that tubercle *per se* does not kill. If by any means we can keep the patient from having a further increase of tubercles, and what is more frequently possible, from further pneumonic or fibroid complications, the patient may live for many years.

It is according to the character of the secondary complications that the future of a case of pulmonary phthisis is determined. If the secondary complication is fibroid, the progress of the case is slow, and the patient may enjoy comparatively good health for a long time. If, on the other hand, the secondary complication is pneumonic, then there are developed in the lungs little pneumonias which produce fever and wasting, and the case is one which always progresses more or less rapidly.

In tubercular phthisis with a secondary pneumonic complication dominating, the prognosis is always bad. In tubercular phthisis with secondary fibroid complication, the prognosis may be very good indeed. It is in such cases that some people think by drinking whiskey that a secondary fibroid complication takes place, and the life of the patient is prolonged beyond the average.

The peculiar clinical feature, however, of tubercular phthisis, is that at first there are but few local signs with profound constitutional disturbance.

Now we come to the clinical character of cases of pneumonic phthisis. The two kinds of pneumonia which we have taken into consideration are the ordinary croupous pneumonia and the cheesy pneumonia. Now I will represent croupous pneumonic phthisis by giving a specimen case. It is typical, and will answer for many cases. Here is the lung of a patient who was well known in the London Hospital; his name was MacIntosh; he came into the hospital with all the usual signs of pneumonia. The pneumonia, however, had some features which were exceptional, and which led me to give the prognosis in the case which I did. He had the usual symptoms of pneumonia, with this qualification: dullness over the seat of the disease was more complete than usual. There was diminished tactile vocal fremitus instead of increased. Instead of bronchial breathing there was feeble breathing, and, in short, there were pres-

ent symptoms almost like those present with pleuritic effusion. There was no tubular breathing. There was diminished vocal resonance; and the dullness was considerable, but as there was no displacement of organs, no projecting of intercostal spaces, and there were profound constitutional symptoms, I had no difficulty in arriving at the conclusion that the case was one of pneumonia. I then predicted that we were certain to have trouble with this case, for I had observed that when there remained diminished tactile fremitus, and such physical signs as have been enumerated, the lungs were unable to fulfill their function, and so it was with MacIntosh. He expressed himself as feeling quite well, but the physical signs remaining were diminished breath sounds and diminished vocal resonance. He got quite well and went out of the hospital, but had this solid mass in the right lung. He was not long out, say about two months, when he returned. I then watched him for twenty-two months. The course of the case was simply that of ordinary pneumonia, in which the pneumonic exudation was unabsorbed, probably from local circumstances, for there was no family history of ill-health, and there were no severe constitutional symptoms. There was probably an increase and a suppurative disintegration of pneumonic exudation; at all events the pneumonic lung broke up. I then predicted another thing, in which I was quite wrong. For, it had been my experience that whenever a pneumonic exudation breaks up, that within a month of that time, evidences of what is called tubercle would appear in the other lung. I have not known an exception to this law, and in Peter MacIntosh, when the pneumonic lung began to break up there were evidences of something wrong in the other lung, and I then made the prediction that tubercle was developing there. At the end of twenty-two months he died, and here is an illustration of what we found upon post-mortem examination. There is nothing here, as you see, which can be called tubercle, there is simply lobular pneumonia. Now, this is a rather quick example of what may be called pneumonic phthisis arising from a common inflammation.

The diagnosis of these cases is not very difficult, because we have a slow inflammation followed by trouble at the base of the lung; the trouble there never disappearing, and being followed at last by symptoms of phthisis. And if to this you will add the fact, that the summits of both lungs are early involved, you are probably safe in making the diagnosis of croupous pneumonic phthisis.

Here I am called upon to make another qualification. It is in the early stages of these affections that I believe we can more readily recognize them. In the latter stages it is difficult, and the reason for this is plain. In the early stages of these affections the distinctive anatomical characters can be made out from the history of the case, but in the later stages the whole symptoms are due more to the destruction of lung tissue, than to the nature of the destroying agent. Hence, it is most important that we should not forget that in the later stages it is next to impossible to recognize these distinctive changes. It is in the early stages alone that we can be sure in making such distinctions, and then I think it can be done.

(To be continued.)

SPENCER WELLS.—The *British Medical Journal* thinks Mr. Spencer Wells should be gazetted K.C.B. for his eminent services.

## LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

By JOS. C. HUTCHISON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON-IN-CHIEF TO THE BROOKLYN ORTHOPEDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

## LECTURE III.

*Treatment.*—In considering this branch of our subject, a question which presents itself at the very threshold is, "At what age shall the treatment be commenced?" I have no hesitation in saying that if the child is in a fair condition of health the treatment should be commenced when it is six or eight weeks old. Nothing is gained by delay, but on the contrary we know very well that the longer the foot is permitted to remain in an abnormal position the greater is the resistance to be overcome, owing to the shortening of the ligaments which is constantly going on, thereby fixing the bones more firmly in their abnormal position. It has been objected to very early treatment: *first*, that the child's skin will not bear the pressure of the mechanical force necessary to keep the foot in position, that ulceration and gangrene are likely to supervene; and *second*, that there is great difficulty in adapting mechanical appliances to an undeveloped and misshapen foot. A considerable experience in the use of plaster-of-Paris splints in the treatment of club-foot has convinced me that such objections are unfounded, and I shall have the opportunity of showing you that club-foot can be treated in the youngest and most delicate children without the slightest discomfort. Is there, on the other hand, any age beyond which we cannot hope for a cure? According to Buvier, it is rare to obtain a satisfactory result in congenital club-foot after the age of fifteen or twenty years, even with the aid of tenotomy. He says that talipes and equinus are curable at a later period than varus and valgus. Malgaigne thinks that we cannot hope for any improvement in congenital varus after the eighteenth year, and this precept, which is concurred in by most writers, will hold true in the generality of cases.

I do not propose to consider the various plans of treating varus which have been practised from time to time by English, French, German, and American surgeons, for, however interesting and instructive such a discussion might be, it would be impossible to engage in it with the limited time we have at our disposal. The plan which I propose in these lectures is to describe merely the treatment adopted by myself, after an experience somewhat extended, in the Brooklyn Orthopedic Infirmary and the Brooklyn City Hospital, as well as in private practice. This experience comprehends the trial of various plans of treatment which have had the endorsement of high authorities. "The scientific treatment of talipes varus when severe, as of several other deformities of the limbs," Mr. William Adams very properly remarks, "can only be accomplished by a judicious combination of the operative, mechanical, and physiological means, while many of the failures still witnessed in the practice of those who have not devoted much attention to the subject are due to the want of this combination of principles, too frequently considered as antagonistic to each other, but which modern science teaches us are only reliable in so far as their mutual dependence is recognized and applied by the scientific insight of

the surgeon." \* Mr. Adams has more strongly than any other writer inculcated the importance of the *physiological* treatment, in addition to the operative and mechanical, in the management of varus. The *physiological* treatment consists in passive motions of the tibio-tarsal, transverse tarsal, and other joints of the foot, shampooing the muscles with dry, hot flannels—dry heat having a marked influence in restoring nervous energy—and localized electrization (galvanization and faradization) of the muscles, especially of the weakened peronei muscles. Every experienced orthopedist must recognize the value of the judicious combinations of those methods of treatment in severe cases. You must not suppose that when you have removed the deformity by the division of the contracted muscle, and the use of mechanical appliances, that you have effected a cure. You have only palliated the case, and you may have the mortification of witnessing a relapse, or of seeing that the usefulness of the limb has not been materially increased by the treatment. You have not used all the means at your command. In order to effect a cure you must give tone to the muscles of the limb, promote its nutrition, re-establish its innervation, and loosen up the joints by the use of electricity, local gymnastics, and friction. The physiological after-treatment is equally and often more important than the operative or mechanical. The function of the limb must be restored as well as its form. In a certain number of cases tenotomy is indispensable in the treatment of club-foot, whilst in other cases a cure can be effected by the use of mechanical and physiological means alone. Now let us consider the management of cases of club-foot in which *operative treatment is unnecessary*, or in which a reasonable doubt of its necessity exists. I have already stated that the severity of the case and the consequent prognosis does not depend so much on the degree of distortion as on the resistance offered to the reduction of the deformity by manipulation. In cases apparently severe, we can sometimes easily overcome the distortion by manipulation, while other cases, presenting even a less degree of deformity, are rigid and unyielding. In deciding, therefore, whether an operation is necessary in any given case, we must be guided by the degree of the rigidity rather than the grade of the deformity. If we can, by taking hold of the foot with the hands, bring it quite or nearly into its normal relations with the leg, it is not, as a rule, necessary to practise tenotomy. The operation should, in such cases, supplement the mechanical treatment, if it should be found necessary. I am aware that many orthopedic surgeons are prejudiced against the use of mechanical appliances without tenotomy, claiming that it subjects the child to great torture, causes it to cry and wail during the whole course of the treatment, not infrequently produces fever and convulsions, and renders a suspension of treatment necessary. I have myself witnessed these dire consequences from the use of Scarpa's shoe and its various modifications, which exert pressure upon prominent parts of the foot: but by the use of plaster-of-Paris, applied as I shall now describe, which presses not upon the bony prominences merely, but uniformly upon every square inch of surface to which it is applied, a great deal of mechanical force can be used for a long time without the slightest pain to the child.† For the reasons, therefore, that the application of plaster-of-Paris is painless, what-

\* On Club-Foot, p. 22, London, 1876.

† Plaster was first used in the treatment of club-foot by Dieffenbach. See also papers on Treatment of Deformities of Foot with Plaster, Prof. J. L. Little, MEDICAL RECORD, vol. i, p. 537, and the late Dr. Enos, Trans. Med. Soc. State N. Y., 1863.



ever amount of pressure is applied, and the duration of treatment greatly abbreviated, I cannot too strongly urge this method of treatment at first and until the distortion has been overcome, whether tenotomy has been practised or not.

The mode of application I will now show you. This little patient is the subject of talipes varus of a mild form, which I expect to be able to cure without tenotomy. I take two pieces of coarse cotton-flannel long enough to extend from the head of the tibia around the heel to the ball of the great toe, and wide enough to embrace two-thirds or three-fourths of the circumference of the leg. Flannel, with coarse meshes such as I show you, or coarse towelling, should be selected, because they hold a large quantity of the liquid plaster. Fine fresh plaster, such as dentists use, should always be preferred. Unless it is fresh it does not set quickly, and the hands of the surgeon while holding the foot in position will tire before the plaster has hardened, and the foot returns somewhat towards its abnormal position. The plaster is put into a bowl, and warm water is added (stirring constantly) until the mixture is of the consistency of cream. Warm water is used because it hastens the hardening of the plaster. One layer of the cloth is now laid upon the table and its upper surface is covered with a layer of the liquid plaster, spread smoothly with a spatula or tible-knife. The second layer of cloth is then immersed in the liquid plaster and applied evenly and smoothly over the first. The under surface of the first layer, you will observe, is not covered with the plaster, and it is the surface which is to be applied next to the skin. I now, with the aid of an assistant, place it around the limb from the head of the tibia to the ball of the great toe, carefully folding in the redundant cloth around the transverse tarsal and tibio-tarsal joints, where greater strength of bandage is required, and then cover the whole with a roller-bandage. I now grasp with one hand the turned foot in front of the transverse tarsal joint and force it outward, elevating at the same time the external border, while with the other hand the heel is forced downward. By these manipulations I abduct and rotate outward the bones in front of the transverse tarsal joint, and flex the foot at the tibio-tarsal articulation. The foot is firmly held in this position until the plaster hardens, which usually requires about five minutes if the plaster is fresh. When the rigidity of the tissues is considerable, which is not the case in this patient, the foot may be fixed more firmly in the new position by the application of some of the liquid plaster over that portion of the bandage which surrounds the back part of the foot and ankle. The dressing should be removed every four or five days and a new dressing applied, the foot having been first thoroughly washed, rubbed, and manipulated, so as to loosen the transverse tarsal, tibio-tarsal, and calcaneo-astragaloid articulations, and to stimulate the innervation of the muscles. Friction and passive movements, which cause but little pain, materially aid in restoring the freedom of the joints and in expediting the reduction of the deformity, and should never be omitted. At each reapplication of the dressing, the foot may be brought nearer to its normal position—from five to eight dressings usually being sufficient to reduce the deformity completely. When this has been accomplished, the foot may be put into one of Ahl's adaptable club-foot splints, such as I now show you (Fig. 11.) This splint I have found extremely useful at this stage of the treatment. This splint is made of felt stiffened with shellac, and is very pliable when heated. To adapt this splint it is immersed in boil-

ing water until it becomes pliable, and is then applied to the foot and leg, which have been previously covered with a thick stocking; the foot is now forced into position with the hands, in the manner already described after the application of plaster of Paris splint, and held until it hardens; it is now covered with a roller-bandage. The splints remain pliable for a few seconds only, and it is well to protect the hands from the heat by cotton gloves which have been wet with cold water. One advantage of this splint is, that it can be readily removed and readjusted by the mother, who should be instructed to shampoo the muscles and manipulate the foot in the manner already described, in order to restore motion to the joints.

It is of the greatest importance that undue pressure shall not be made upon any particular part of the foot, for fear of producing abrasion of the skin or superficial gangrene, which would necessitate a suspension of the treatment. If, therefore, the child, by restlessness or otherwise, shows signs of pain, the splint should be at once removed and a layer of wool batting placed over the points of greatest pressure and the splint readjusted.

The electric current (Faradic or constant) will materially assist in restoring the functions of the

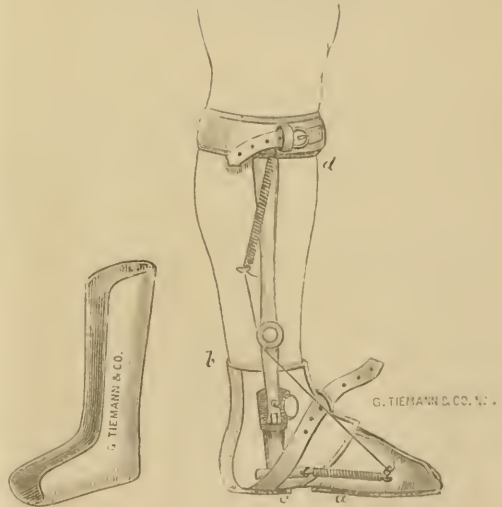


FIG. 11.

FIG. 12.

muscles, which have lost their power, not from absolute paralysis (in the congenital cases), but from disuse. The felt splint may be used until the child is able to walk. It is better, however, as the deformity has been reduced by the above method, to apply Scarpa's shoe, as modified by Tiemann, which I here show you. (Fig. 12.) This not only retains the foot in position, but applies the principle of continued elastic extension, first enunciated by Dr. Henry G. Davis\* or by Mr. Heather Bigg,† and subsequently adopted by Mr. Burnwell and Dr. Sayre. This apparatus, with its arrangement of spiral springs, does not in any way interfere with the action of the muscles; indeed, the elastic springs act as substitutes or as assistants to the elongated muscles, which are weakened by disuse, and by aiding in developing this contractile power often prevent and sometimes help

\* American Med. Monthly, March, 1857.  
† "Orthopaedy," p. 289, 2d edition.

to overcome fatty degeneration. At the same time the contracted muscles, ligaments, and fascia, while they are kept on the stretch, also have the opportunity of contracting and thus acquiring tone, the function of the muscle being in no way interfered with. Sayre's modification of Scarpa's shoe is also an excellent instrument. It differs, you see, from Tiemann's (Fig. 13) in having a ball and socket-joint instead of a lateral



FIG. 13.

hinge under the hollow of the foot, and rubber tubing is substituted for the coiled wire springs: the latter are more durable. It is extremely important that the apparatus be accurately fitted to the limb in all its parts, and that the joints correspond exactly with the axis of rotation of the articulations on which they are to act. When the child is old enough to walk, the shoe should be used during the day and the felt shoe at night. The mother should manipulate the felt, in the manner already described, regularly twice a day when the shoes are changed.

When the foot has acquired its natural position, if the child is old enough, it should be encouraged to stand and walk. The weight of the body becomes a very valuable gymnastic agent, and contributes very materially to the removal of the last traces of the deformity. We should make use of this aid as early as possible. If the tendons are perceptibly contracted after the mechanical and physiological treatment have been used a month, then tenotomy should be practised at once. It may still be possible to make a cure by apparatus alone in such cases, but tenotomy will shorten the treatment and expedite the cure. The treatment of the case after tenotomy will be considered hereafter.

Such, gentlemen, is the plan of treatment which I would advise in cases of club-foot in which operative treatment is unnecessary, or in which a reasonable doubt of its necessity exists. The plaster-of-Paris shoe is incomparably superior to any other in the beginning of the treatment and until the deformity is reduced. It is the most comfortable for the patient, it retains the foot in the exact position in which the surgeon's hands put it, and indeed becomes a substitute for the hands and keeps up a constant and long-continued pressure which would be impossible with the hands alone. "The hand," says Bouvier, "is the ideal of mechanical means for reducing the deformity," and this opinion is endorsed by all practical orthopedists. We will now consider that class of cases in which *tenotomy is indispensable*.

## TRANSFUSION OF MILK VERSUS TRANSFUSION OF BLOOD.

CLINICAL LECTURE DELIVERED AT CHARITY HOSPITAL,  
NOVEMBER 16TH.

By JOSEPH W. HOWE, M.D.,

CLINICAL PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT  
OF THE UNIVERSITY OF NEW YORK.

### LECTURE II.

(Reported for THE MEDICAL RECORD.)

RESULTS OF TRANSFUSION OF BLOOD IN ADVANCED  
PHTHISIS—TRANSFUSION OF BLOOD IN SYPHILIS—  
TRANSFUSION OF BLOOD IN PATIENTS HAVING BOTH  
SYPHILIS AND PHTHISIS—INSTRUMENTS EMPLOYED.

GENTLEMEN:—Last Saturday I showed you the manner in which transfusion of milk was performed. You all witnessed the peculiar and dangerous symptoms which attended the passage of the milk into the circulatory system of the sick woman. It was the general opinion that the transfusion would shorten her life, and that she would survive the operation but for a few hours. We were all mistaken. A short time after being carried to the ward, both pulse and temperature approximated more nearly to a normal standard. At 9 P.M., seven hours after the operation, her pulse was 120, respiratory movements 32, and her temperature 100° F. At 6 A.M. the morning after, the pulse was 110, respirations 24, temperature 99° F. At 6 P.M., the same day, pulse was 120, respirations 32, temperature 101° F. To-day she is sitting up in an arm-chair feeling quite comfortable. She thinks the transfusion helped her, but she is not willing to have it repeated to-day.

The operation for transfusion of blood, which I intend to show you this afternoon, is one of the oldest on record. The records are meagre, and few and far between, but still are sufficient to prove the antiquity of the operation. Passing over the oft-repeated story of the sorceress Medea, who injected vegetable juices mixed with blood into the veins of old men to make them young again, and the well-known case of Pope Innocent the VIII., upon whom the operation was performed with fatal results, we find little interest taken in transfusion until the seventeenth century. Then, through the labors of Lower in London, and Denys in Paris, whose operations were very successful, general interest was excited, and transfusion of blood became a fashionable operation for a few years. In 1825 Dr. James Blundell performed transfusion in a large number of cases with wonderful success, and since then the operation has maintained something of a hold on the medical mind, never dying out completely, but performed at rare intervals with varying results.

In this country the operation has been performed quite frequently during the past ten years by Profs. Austin Flint, Jr., T. G. Thomas, Morton, Brinton, Hunter, Ives, and others. I have used blood in transfusion thirteen times. Only two of my cases were operated on for loss of blood. The only case out of the thirteen that received permanent benefit from the operation was a patient in this hospital, whom I transfused for profuse and long-continued epistaxis. In all the cases but one there was temporary relief. Dr. Thomas G. Morton, of Philadelphia, and others, report a larger percentage of good results because their operations were performed on patients suffering from great loss of blood. It is in such cases, and not in the exhaustion from disease, that transfusion of blood is particularly indicated. Dr. Morton, who has ex-



amined the statistics of the operation and added much to the literature of the subject, says that in one hundred cases of transfusion for post-partum hemorrhage, over fifty-six per cent. recovered, and in forty-one cases of hemorrhage from wounds over fifty-eight per cent. recovered.

On the other side of the Atlantic transfusion of blood has been resorted to for the cure of phthisis. A London surgeon, whose name I have forgotten, reports three cures by the operation. I have also performed the operation on bad cases of phthisis, but without any permanent beneficial effects. One of these patients was a lawyer in active practice in Brooklyn. He was forty years old, and had suffered from phthisis for fifteen years. In 1868 large cavities formed in both lungs, and he was given up by his physicians. He rallied, however, and continued at work until January, 1875, when a severe diarrhœa set in which destroyed all hopes of even a partial recovery. I first saw him on the 11th of February, 1876. He was then sinking rapidly, and had evidently but a few hours to live. The medical gentlemen in consultation, Drs. J. C. Hutchison, Vrooman, Catlin, and Barber, agreed with me that the transfusion would be of little service, but as the patient was extremely anxious to give it a trial the operation was performed. Dr. Vrooman, the family physician, furnished the blood, which was injected by means of the aspirator. The first two ounces injected made the pulse imperceptible at the wrist, and the respiratory movements gasping and hurried. The eyeballs twitched from side to side, and he became partially unconscious. Pressure over the epigastric region was resorted to in order to push up the diaphragm and force air out of the lungs. This measure, which is always useful in restoring the respiratory movements and the action of the heart, produced the desired result, and he soon breathed as well as before the operation commenced. Two ounces more were then thrown in with similar unpleasant results; the insensibility, however, was more marked. The operation was then suspended. For more than an hour he remained in a semi-unconscious condition; then rallied, and the rest of the day he seemed much improved. On the 12th he expressed a desire for food, but kept little of it on his stomach. On the 13th he grew weaker, and on the 14th he died. His medical attendants thought his life had been prolonged thirty-six hours by the transfusion.

The second case was transfused in this amphitheatre. The patient was a laboring man, aged thirty-five. He had had phthisis two years. Both lungs contained large cavities. He suffered greatly from dyspnœa. His temperature was 103° F.; pulse, 120; respirations, 30 per minute. Not being able to sit up, he was carried into the amphitheatre on his bed. I injected the same amount of blood as in the previous case and in the same manner. As the operation proceeded, he exclaimed: "Oh, that feels so good; it is so nice and warm. I can feel it all through me." He had no unfavorable symptoms during the operation. His pulse dropped to 112, and his respiratory movements became much easier. On the evening of the same day his temperature ran up to 104° F., and the pulse increased to 140 per minute. Three days after the transfusion the temperature fell to 101° F., and the pulse to 105. For two weeks he seemed much improved in every way. At the end of that period, however, the disease took a fresh start, and he died four weeks from the day of operation. I presume another transfusion would have prolonged his life still further, but he was not desirous of having it repeated.

No. 3 was transfused the same day at the same clinic. The patient was forty-two years old; suffered from catarrhal phthisis for fifteen months; cavities existed at the apices of the lungs, but he was not so low as the patient that preceded him. In this case I used Colin's instrument for transfusion. The blood was first defibrinated with glass rods, strained through linen, and injected. When two ounces had entered the circulation, the patient's face became livid, his respiratory movements gasping, and he said he felt as if about to suffocate. He seemed to suffer so much that I at once discontinued the injection. The only improvement that appeared in this case was a diminution in the cough. A few weeks afterwards the patient left the hospital and I lost sight of him.

Now these three cases give you a very good idea of the benefit which phthisical patients derive from transfusion, and the peculiar symptoms developed during the operation you may possibly witness again to-day.

With regard to the instruments necessary for the operation you can choose from a large number, and you can use either defibrinated or undefibrinated blood. If the latter is employed, it should always be mixed with a solution of carbonate of ammonia to prevent coagulation. If you are in the country, and cannot get a proper apparatus, an ordinary hard-rubber syringe will answer the purpose. The vein can be opened and the nozzle of the syringe inserted without a canula; or you can make a canula with a small goose-quill, and insert the tapering end into the vein. Be careful always to force some blood through the nozzle before inserting it to drive out the air. When you use the syringe, the blood should be carefully and thoroughly defibrinated. If you have no syringe, a glass funnel with a rubber tube and small canula will answer. The blood may be allowed to flow from the donor's arm directly into the funnel, but it is better to defibrinate it first. When the air is driven from the tube it can be attached to the canula, and the blood will flow slowly into the vein. Professor Thomas employs the glass funnel and rubber tube for the transfusion of milk.

The principal instruments for transfusion are Diefenbach's aspirator with my transfusion needles and tubes, Colin's instrument, and Aveling's. With the first I have operated twelve times; in one case only have I used Colin's. The transfusing tubes of the aspirator are, as you see, about ten inches in length. They have a calibre of two and a half millimetres. To the extremity of the efferent tube there is attached a hollow needle with a curved, sharp extremity. This small calibre is necessary to prevent the vein from becoming emptied too soon. The aspirator is placed in the basin of water at 107° F. and the cylinders exhausted by turning the handle from left to right. When this is done I insert the needle into a bottle containing a solution of carbonate of ammonia (ten grains to the ounce), and turn the stop-cock of the aspirator and allow an ounce of the liquid to run into the aspirator. The stop-cock is then closed and the instrument is ready for use. Now you take a bandage and place it around the arm of the donor above the elbow, and tie it sufficiently tight to obstruct the circulation through the veins, but not through the arteries. If the arterial supply be cut off the veins will soon be emptied of their blood. You see that the bandage has produced considerable distention in all the veins of the donor's forearm. This distention will be increased as soon as he clasps his hand tightly on the stick he holds. When the veins are fully distended, I take the needle attached to the efferent tube and insert it obliquely from above downwards into the median

basilic vein. I turn the stop-cock, and the blood rushes from the vein through the tube into the cylinder of the aspirator, passing on its way through the solution of ammonia, which it already contains. To obviate all danger of the vein becoming emptied before a sufficient quantity of blood has been obtained, I occasionally compress, as you see, the rubber tube between my thumb and forefinger. The cylinder of the aspirator has now six ounces of liquid in its interior—five ounces of blood thoroughly mixed with one ounce of the solution of ammonia. The stop-cock is closed, the needle taken from the vein of the donor, and the aspirator can remain in the warm water until the patient's arm is prepared for the injection.

This patient is twenty-six years old. He has had several hemorrhages from the lungs, and coughs a good deal. He has a cavity in one lung, and signs of consolidation in the other. In January, 1878, he contracted syphilis, and since then has passed through all the secondary manifestations of the disease, and is now showing symptoms of tertiary. He has now syphilitic ulcerations of the pharynx, and necrosis of the nasal process of the superior maxillary bone. There are also several large syphilitic ulcers on both legs, and the integument in other parts of the body show large cicatrices, resulting from old syphilitic ulcers. Pigmentation of the skin may also be seen in the vicinity of these sores. The patient is, as you see, extremely anemic and cachectic. His pulse is weak, intermits a little, and is now 115 per minute. His temperature is 101. Transfusion of blood ought to benefit him. Now I push up the integument over the median cephalic vein and incise it. You can see the blue vein through the incision. I next make an opening in the vein in the same direction as the cut in the integument, and introduce the canula of the aspirator, closed by the stylet. Now I turn the stop-cock of the efferent tube, and by reversing the handle of the aspirator force some blood through the tube, at the same time driving out the air. I then take the stylet out of the canula; blood escapes from the end of the tube; so there is no air either in the canula or in the tube of the aspirator. The tube and the canula are now attached, and Dr. Rice will hold them in position. By turning the handle of the aspirator from right to left, the blood is forced into the vein.

Injection commenced, Professor Otis noting the changes in the pulse.

Prof. Otis: The pulse beats 120 per minute; has fair volume.

Prof. Howe: One ounce of blood has already passed into the vein. How do you feel?

Patient: I feel no trouble anywhere.

Prof. Howe: Another ounce has passed in. How do you feel now?

Patient: About the same.

Prof. Otis: The pulse is increasing in volume.

Prof. Howe: Have you any unpleasant sensation about the chest?

Patient: There is no bad sensation about the chest, but I feel kind of dizzy.

Prof. Otis: The pulse is a trifle irregular.

Injection proceeded.

Prof. Howe: Do you think you could walk straight?

Patient: I don't think I could.

Prof. Howe: Is there any pain in your chest?

Patient: There is a slight pain about the heart. The dizziness is increasing in my head.

Prof. Otis: The pulse is a little more rapid.

Prof. Howe: Do you see single or double?

Patient: I see you single.

Prof. Howe: Do you feel any pain now?

Patient: A sort of pain in my head.

Prof. Otis: The pulse is 140, and not quite so strong.

Prof. Howe: Do you feel any difficulty in breathing?

The patient takes two full inspirations without inconvenience.

Prof. Howe: How does your head feel?

Patient: It feels better than it did.

Prof. Otis: The pulse has diminished in frequency.

Prof. Howe (still slowly continuing the injection): How do you feel?

Patient: I feel comfortable.

Prof. Otis: The pulse is 130.

Prof. Howe: He has now received nearly three and a half ounces of blood. How do you feel?

Patient: I feel bad; I feel a thumping in my head.

He takes a full breath without difficulty. Injection continued.

Prof. Otis: The pulse is increasing in rapidity.

Prof. Howe: How do you feel?

Patient: The dizziness is growing worse. My head feels bad, and there is a slight pain about my heart.

The patient's face was covered with red circumscribed blotches when the operation ceased.

Prof. Otis: The pulse is increasing in volume.

Prof. Howe: How does your head feel now?

Patient: It feels pretty well.

Prof. Howe: The patient will now be carried to the ward, and the house-surgeon, Dr. Rice, will carefully note the changes which will take place from the operation.

The next patient who is anxious to try transfusion is forty-one years old. He has had phthisis for one year. He is constantly troubled with cough, expectorates blood occasionally, and has been running down rapidly ever since the beginning of the attack. He is now, as you see, very much emaciated. His lips are pale and bloodless. There are cavities in both lungs. The pulse is fuller and stronger than in the previous case, and is only 88 to the minute. Respiratory movements are 32; temperature, 101° F. I will use Colin's instrument in this case. The inventor of the instrument intended that it should be used for the introduction of undefibrinated blood, and it is so employed on the continent. I would not feel justified in using it in this way. There is always some danger of clots forming when the blood is exposed to atmospheric influences, and one small clot might destroy the patient's life.

The most important point about Colin's transfuser is, that it is impossible for air to get into the tube of exit during the injection. If, then, the blood be defibrinated thoroughly and every particle of fibrin removed, and the liquid injected with this instrument, the operation of transfusion is completely divested of two of its principal dangers—in fact, the only dangers attending it—viz., the admission of air and the formation of clots. The unfavorable symptoms which attended my first use of this instrument may have been due in part to incomplete defibrination. The blood was whipped once and strained once only. This time it shall be more thoroughly done.

Here are three "finger-bowls," each one immersed in a basin of warm water at 107° F. The blood from the donor's arm is received into the first one. Covering the top of the second bowl is a piece of clean, fine linen; on the top of the third is a piece of white



satin, which has been previously washed in boiling water. I take a glass rod and "whip" the blood in the first bowl for three or four minutes, then strain it through the linen into the second bowl. A large clot of fibrin is left on the surface of the linen. Now I use the glass rod a second time, whipping the strained blood again for a couple of minutes. Then I strain the blood again through the satin covering into the third bowl. In this latter I have previously placed an ounce of water, containing in solution ten grains of carbonate of ammonia. The blood is then thoroughly defibrinated, and is also mixed with ammonia, which adds to the stimulating effect of the injection.

The median basilic vein in the left arm of the patient is opened in the same manner as in the previous case, and the canula, with a trocar in its interior, inserted. Colin's instrument, which has been for some time in a basin of warm water, is now filled with the defibrinated blood; a small portion is forced out through the tube to expel the air. The trocar is drawn from the canula in the arm, and the smaller canula connected with the rubber tube of the transfuser is inserted into it. Everything is now ready for the injection.

Before the injection of blood was commenced the pulse, as counted by Prof. Otis, was 88.

The injection was commenced.

Prof. Howe: One cylinder full. Do you feel any trouble in the chest?

Patient: No trouble whatever.

Prof. Otis: The pulse remains the same.

Prof. Howe: How do you feel?

Patient: No trouble anywhere, except in the arm.

Prof. Howe: Three cylinderfuls have been thrown into the vein, and I have refilled the cylinder the fourth time. How do you feel now?

Patient: No trouble except when Dr. Rice pinches my arm.

Prof. Otis: The pulse remains as it was at the commencement.

Prof. Howe: The patient has now received four syringe-fuls, and the instrument is refilled. How do you feel now?

Patient: I feel no trouble anywhere, either in the head or chest.

Prof. Otis: The pulse is 84, and slightly diminished in volume.

Prof. Howe: Another syringe-ful of blood has been introduced, and the patient says he has no discomfort.

Prof. Otis: The pulse is 86.

Prof. Howe: Another cylinder-ful has been introduced. Over three ounces have been injected altogether. The patient says he does not feel any pain in the head or chest, or trouble anywhere.

An additional syringe-ful has now been introduced, and Prof. Otis says the pulse is 78 and fuller. The patient says he feels about the same as at the commencement of the operation. Four ounces of blood have been injected without the occurrence of any bad symptom whatever.

**A SAD SCENE.**—The daughter of Dr. Delean, of Paris, died in that city recently, of phthisis. The father, who had watched over her sick-bed with untiring devotion, was inconsolable, and refused to quit the chamber of death. His friends were finally about to tear him away by force, when he begged to be allowed a last embrace. He threw himself upon the body, kissed the dead lips passionately, and then died without a cry. The two funerals took place together,

## Reports of Hospitals.

### BELLEVUE HOSPITAL.

CLINICAL NOTE—MERCIER'S OPERATION FOR VALVULE AT THE NECK OF THE BLADDER.

At a clinic held in Bellevue Hospital October 4, 1878, a man, æt. 70 years, presented himself with obstruction to urination arising from a valvule at the urethro-vesical orifice. From such obstruction he had suffered for a number of years. Mercier's operation for the first time in this country was performed by Dr. J. W. S. Gouley, and the obstruction completely removed.

*Remarks by Dr. Gouley:*—These prostatic valvules were never understood until they were described by Mercier in 1836; his first book, however, was published in 1841. We had been told by Sir Everard Home that the obstruction to urination was due to development of the central portion of the prostate, and he thought he recognized what has been called the third lobe of the prostate. But there is no such thing as a third lobe of the prostate gland. Instead of that, there is a peculiar development of the central portion of the vesical extremity of the isthmus which takes various forms, but most frequently that of a valvule, which varies considerably in thickness in different cases.

The most common form is that exemplified by the web between the thumb and the index finger. Mercier has recognized another form of valvule occurring in young men, due perhaps to some urethral difficulty, or to stone in the bladder, or to cystitis, and to that he has given the name muscular valvule, because it consists only of muscular fibres, whereas the prostatic valvule is made up of glandular tissue as well as muscular fibres.

This man had a prostatic valvule, and I performed what is known as Mercier's last operation, which consists in clamping, crushing, and incising the tissue with the same instrument. His first operation consisted simply in making an incision through the valvule. Guthrie has described the condition as a bar at the neck of the bladder, and recommended that an incision should be made, but never performed the operation. Mercier was the first to perform it, but considerable hemorrhage followed the simple incision, and he has devised an instrument by means of which the clamping, crushing, and cutting operation can be combined, thereby making it practically a bloodless procedure.

In this case, about one drachm of blood was lost, and for forty-eight hours the urine was slightly blood-stained. Ten grains of quinine were given a few hours after the operation was performed, the temperature has not at any time reached 100° F., the patient has not had a chill, and the case has progressed without a single unfavorable symptom. Soon after the operation the patient urinated without the use of an instrument. But I prefer that he should not do so, for the reason that he has not, for years, passed his water without the aid of a catheter. There is atony of the bladder remaining, which will be treated for two or three months with the hope that he will then be able to pass his water without the introduction of an instrument. If, however, he is not able to pass urine without artificial aid, the final result of the operation will be to greatly facilitate catheterism.

Up to the year 1856 Mercier had incised the valvule upwards of three hundred times, and with satisfac-

tory results. I have seen a patient upon whom he operated twenty years ago, and he was able to sound himself with perfect comfort. The atony of the bladder in this case will be treated by the use of electricity. The faradic current will be employed, one electrode being placed over the sacrum and the other over the hypogastrium.

#### HYPERTROPHY OF THE MUSCLES OF THE URETERS— A NEW FACT IN PATHOLOGY.

In connection with this case I wish to direct your attention to another important fact, an observation of which I have not seen recorded. It is that in at least a large proportion of cases of valvule at the urethro-vesical orifice there is a second obstruction or bar, caused by hypertrophy of the muscles of the ureters, which divides the *bas fond* into two nearly equal portions. I have in my possession at least a dozen specimens illustrating this point. The significance of this is, that the stagnant urine may be drawn from either of these halves without completely emptying the other. I have repeatedly made the observation upon the living subject, first emptying the posterior half without emptying the anterior; then withdrawing the catheter slightly, from one to two, or even three ounces of urine have been drawn from the anterior half of the *bas fond*. In some cases I have drawn the urine from the posterior half of the *bas fond* after emptying the anterior. What is the practical deduction from the observation? It is simply that we should divide or excise the portion of the bar in the median line so that the posterior half of the *bas fond* would be emptied in the act of urination in the event of a successful incision or excision of the valvule to the anterior half.

## Progress of Medical Science.

**A NEW VIBRIO GIVING RISE TO A DISEASE RESEMBLING MALIGNANT PUSTULE.**—M. Bouley recently presented to the *Académie des Sciences* a paper by M. Toussaint, in which he described a new vibrio, found in cases of a disease resembling malignant pustule. A magnifying power of 500 to 800 diameters revealed, in all the fluids of the body, an immense number of very minute vibrios, spherical, or slightly oval in shape, refracting light but slightly, which rendered them difficult to distinguish in the colored serum of the blood. They occurred singly or in pairs, three never being united in a chain. Their size varied but little;  $\frac{1}{10000}$  of a millimetre in thickness, by  $\frac{1}{10000}$  to  $\frac{1}{10000}$  millimetre in length. They exist in great numbers in the blood (five to ten for a red globule), but in immense quantities in the lymphatic glands. All the humors of the body are inoculable, and the disease is not only communicable by direct inoculation, but also by the digestive tract, and also, perhaps, by the respiratory organs. This microcosm has been cultivated by Pasteur's method, and under the microscope in Ranvier's chamber with gas and heat. It multiplies by division; in two hours and a half one has produced twenty-two. The symptoms of this disease led M. Toussaint to consider it the same as described by MM. Leplat and Jaillard as a carbuncle without bacteria, and by M. Davaine under the name of *Maladie de la vache*.—*La France Médicale*, July 17, 1878.

**VENOUS PULSATION.**—Dr. Lauder-Brunton has recently called attention to a variety of jugular pulsa-

tion which he has observed in anæmic females. The phenomenon is only seen on the left side, and in some cases only with expiration or upon violent exertion; it is due to the pressure of the aorta upon the left vena innominata, together with a dilated condition of the peripheral veins, which permits a rapid filling of the jugular. Attention was also called to the observations of Sir Joseph Fayrer and Dr. Brunton, showing that the pulmonary vein and the vena cava in rabbits might be seen to pulsate rhythmically for a considerable time after the auricles and ventricles had become perfectly still; this, which is not a simulated but a real pulsation, has been omitted from modern text-books, although it is to be found in the older writers. The property of contractility possessed by the veins is but little regarded, and yet it is one of great importance in reference to the maintenance of the circulation in health and disease. It is obvious that if the venous radicles contract, they may oppose an obstacle to the flow of blood in the capillaries, and, by thus increasing the pressure within them, may cause more fluid to exude from them into the tissues; while, on the other hand, a rhythmical contraction may forward the onward progress of the blood, and may prevent some of the injurious effects usually noticed in tricuspid regurgitation. The action of drugs upon the veins has hitherto received but little attention, but it is probable that before very long some definite knowledge may be obtained upon the subject which will assist in the treatment of those diseases in which venous engorgement plays a prominent part.—*The Lancet*, October 26, 1878.

**THE OIL OF AMBER IN ANGINOSE AFFECTIONS.**—Dr. A. R. Fink, of Philadelphia, recommends very highly the oil of amber for the relief of the neuralgic element of anginose affections. In support of this he cites several cases treated by this drug with marked success. It was only used in conjunction with other treatment, but the pain ceased so invariably on the use of the amber, and, in several cases, reappeared so quickly on its disuse, that, in Dr. Fink's opinion, there could be no question as to the causal relation of the administration of the amber to the relief of the pain. It is the presence of neuralgic pains, and not the organic or functional character of the heart affection, that indicates the use of this agent. Hysterical angina frequently receives the happiest relief from the addition of from eight to ten drops of the oil to an anti-hysterical dose, repeated every twenty minutes.—*Medical Times*, October 26, 1878.

**SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.**—Dr. J. C. Hutchison, of Brooklyn, reports a case in which he has performed Adams's operation for the relief of bony ankylosis of the hip. After the operation the patient was put to bed with extension, and then after two weeks was allowed to go about on a wheeled crutch, the object being to produce motion at the point of section, and thus prevent ankylosis. When discharged, three months after the operation, he walked comfortably with a cane. In the erect position he carried his foot forward eighteen inches, backward twenty-six inches, inward across the well foot twelve inches, outward twenty-six inches. The limb operated upon is two inches shorter than its fellow, though it seems longer on account of the obliquity of the pelvis; a false joint clearly exists at the point of division. He sits upright with perfect comfort. At last accounts the patient was improving steadily in walking.—*Proceedings of the Medical Society of the County of Kings*, November, 1878.



**FILARIA IN THE EYE.**—Dr. Chas. S. Turnbull reports a case of filaria occurring in the eye of a horse. The worm was several inches in length, of a white color, and could be distinctly seen without the aid of any artificial means, wriggling about in the anterior chamber. The eye seemed very much irritated, as the horse continually endeavored to rub it, and the stimulus of light caused profuse lachrymation, and, what is characteristic in such cases, *at times only* was the cornea hazy, and the aqueous humor cloudy. The horse appeared perfectly healthy, and was in excellent condition. This makes the third case which has occurred in this country. The first was reported to the Philo-sophical Society by Judge Francis Hopkinson, in 1783; the second, never reported, occurred in the practice of T. N. Corbly, V. S., in 1833. The affection is very common in India; Mr. Twining, of Poonah, for sixteen years averaged twenty cases annually. The worm, he says, is a species of filaria or thread worm, called *filaria equi*. According to Sir Charles Percival: "The method of treatment is by puncturing the cornea at its upper and inner margin, and allowing the parasite to escape with the aqueous humor. This spot is selected for the operation because the cornea is here least dense, and because the aqueous humor, which gradually reforms, will be least likely again to escape while the wound is healing. These worms find their way into the animal's body along with the water he drinks, either as fully developed parasites or as ova. Both the parasites and the eggs are found in the stagnant waters of India." In no case of operation for the removal of filaria has the function of the eye been more than temporarily disturbed. The parasite has also been observed in the human eye, as described by Nordmann, Cobbold, Guyot, and others, but they are of rare occurrence, and there are no instances on record of recent date.—*Medical and Surgical Reporter*, October 26, 1878.

**EXCISION OF SPLEEN.**—According to a communication to the *Boston Medical and Surgical Journal*, the first operation in America for removal of the human spleen was performed by Dr. Oscar C. Dewolf, late of Northampton, now Health Commissioner of the city of Chicago. The patient did well for many hours, and then suddenly died.

**REFLEX SYMPTOMS OF HIP DISEASE.**—In a paper read before the Massachusetts Medical Society, Dr. Bradford, of Boston, pointed out the reflex origin of the muscular contraction, muscular irritation, diminution in electro-muscular contractility, and atrophy observed in hip disease, and, in fact, in all joint diseases. According to most writers, the first of these symptoms is invariably present from the inception of the disease, but Dr. Bradford claims that in one case, out of fifty that he examined, it was only present as a secondary symptom. The diminution of electro-muscular contractility has been observed for some time in joint affections, and, as pointed out by M. Lefort, it precedes the muscular atrophy. These symptoms have been explained in various ways, but Dr. Bradford deems it most rational to consider them all reflex.—*Medical communications of the Mass. Med. Society*.

**OPERATION FOR HARE-LIP.**—Dr. Christ. Lund gives a new operative procedure for forcing back the intermaxillary bone which frequently projects so prominently in double hare-lip. Most of the unsuccessful results of the operations hitherto performed have been due to the fact that the intermaxillary bone was not forced far enough back before proceeding to the operation on the lip.

He has entirely abandoned the old method of the entire removal of the intermaxillary bone, which causes the loss of both front teeth, and makes the lower jaw project beyond the upper. Other more recent methods for preserving the bone also have their defects.

Dr. Lund's method is as follows: The septum is divided in an oblique direction from before backward, from one side to the other, and from below upward. In doing this, the knife passes through one fissure and crosses the septum under an acute angle, so that the point of the knife becomes free in the other fissure further back in the gum, and then cuts through the bone. The cut surfaces are thus quite large, and the ends of the bone are made to be alongside of each other, like two pointed wedges. Then, on pressing the intermaxillary bone backward, the cut surfaces will remain, for the most part, or indeed completely, in contact with each other. It should be remembered that the elongation of the intermaxillary bone is in reality more apparent than actual, for it is only the direction which is abnormal, because the angle which this bone forms with the vomer is more obtuse and approaches more to a straight line than normal. There is, therefore, more a turning of the intermaxillary bone on its oblique axis, downward and backward, rather than forcing it backward in its totality. The cut surfaces, therefore, are only turned toward each other, and the fact that they are brought in contact with each other is of importance, not only for their union, but also for the prevention of the so-much-dreaded hemorrhage. In order to hold the portion of bone which is pressed backward in place, a narrow bandage is placed under the nose and fastened behind the neck and to a night-cap, which is also secured by a bandage passing over the vertex.—*Norsk Mag. for Lægevidenskaben*, No. 3, 1878.

**PILOCARPINE IN ECLAMPSIA.**—Dr. Stroynowski reports the case of a primipara, who was admitted into the hospital in Lemberg with a history of five violent eclamptic attacks during the preceding night. She was totally unconscious, restless, and had general tremor. The head presented at the superior strait, and the membranes had ruptured, but the os was not as large as a silver quarter. The urine was loaded with albumen. During the succeeding 34 hours she had three violent convulsions, after one of which artificial respiration had to be resorted to. At 11 A.M., as a last resort, a Pravaz syringe of a two per cent. solution of pilocarpine was injected subcutaneously. Two minutes afterwards salivation and profuse perspiration set in, and the patient became quieter and slept for two hours. At 2 P.M. regular pains set in; at 4 P.M. the injection of pilocarpine was repeated; and at 6 P.M., as the os was fully dilated and the head had made no progress during the preceding two hours, the child was extracted with the forceps. No convulsion occurred after the first injection. After delivery the patient slept for fourteen hours and then awoke with full consciousness. The subsequent course of the case was normal, though the urine continued to contain some albumen.—*Centralblatt für Chir.*, Sept. 28th.

**CONSUMPTION OF QUININE IN THE RUSSIAN ARMY.**—The Russian military hospitals consumed during the year 1877, 13,200 lbs. of the sulphate, and 6,600 lbs. of the hydrochlorate of quinine. Excessive as this quantity seems, the consumption during the present year will be still larger.

# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## THE PREVENTION OF YELLOW FEVER.

CONSIDERING what was expected of the recent meeting of the American Public Health Association at Richmond Va., there is a general feeling of disappointment that so little was accomplished. It was believed that inasmuch as the main topic of discussion was to be the prevention of yellow fever, some very valuable data would be presented and some very important conclusions arrived at. Far from this possibility, however, the time of the session was occupied in a tedious detail of cases, giving no points upon which a discussion could hang, and in fact affording no opportunity, except for a very few, of making any remarks whatever. The Yellow-Fever Commission, which reported on the occasion, came to the association with a mass of indigested facts, the only value of which was centred in a reiteration of principles as regards infection which no one questions. The novel point which was brought out in the shape of a recommendation, was that referring to absolute non-intercourse with dangerous ports as the only means of preventing the appearance and spread of fever in the United States. As this proposition was of the few which invited hearty applause on the part of the association, it is quite easy to form a general estimate of the value of opinions expressed by this body regarding the topic under discussion. The absurdity of the recommendation shows itself upon its face. The measure is radical, it is true, but there is another way of curing squint short of decapitation. We admit that this is no argument against the efficiency of the method of cure; but, in view of milder and equally promising procedures, the question of expediency presents itself.

This statement does not by any means imply a non-belief in quarantine, but simply in such a method of its administration. Indeed, quarantine lies at the foundation of all preventive measures relating to the appearance of yellow fever in any community. It has been proven by the recent experiences, particularly of

this port, that absolute protection can be guaranteed to the people, and yet there be no embargo upon commerce. And this is the kind of quarantine that is wanted at New Orleans, or at every other equally exposed port.

Perhaps our present purpose of proving the efficiency of the quarantine regulations of which we speak cannot be better served than by referring to the method adopted by Health Officer Vanderpoel for the past seven years, and its results.

In order to give strength to the argument for this system of quarantine, we may state the fact that more cases of yellow fever came to this port between June and October than all the other ports in the United States. During this period there is a daily average arrival of one or two infected vessels, and yet, at no time, for a number of years, has yellow fever made its appearance in this city. Besides this, thirty or more cases of the fever are treated every summer in the Quarantine Hospital. These statements must go side by side with the one, that New York, during its summer season, is exposed as much as New Orleans during its corresponding period. But we will now pass from the consideration of general facts to that of the details belonging to them.

When a vessel arrives from an infected port, or with sickness on board, she is boarded in the Lower Bay by the Health Officer. The hatches are then opened and the vessel is thoroughly aired, after which a preliminary fumigation is given, the basis of which is chlorine. The bilge is then pumped out by the crew, and every article of clothing used about the ship is thoroughly washed and hung up. Every part of the vessel is thoroughly scoured, when another fumigation of chlorine is given, the hatches then closed, and the vessel sent to the Upper Bay to discharge her cargo. If there has been no sickness on board for six days, the passengers, after supplying themselves with clean clothes, are allowed to go ashore.

As soon as the cargo is discharged the real process of purification begins. The lower hold is then thoroughly washed by force-pumps and every part scoured. The hatches are then left off for some hours, when the vessel is again fumigated, after which she is sent to the city.

It will be seen that the principles upon which this system of quarantine are founded are—first, the mode of propagation of the fever; and, secondly, the time of its incubation. Concerning the first point, there is no doubt that the disease is communicated by fomites. Hence the immediate carriers of the infection are destroyed. This principle is not only carried out with the passengers in health, but with such as are sick with the fever and have to be sent to the Quarantine Hospital. Each patient, before he enters the hospital proper, is supplied with a new outfit of clothes, and his own garments are placed aside for disinfection. As a result of such precaution, there has been no in-



stance of the transmission of the fever from the patient to his attendants, although the latter never had the fever previously to entering the service. But the precautions do not stop here. The attendants on Hospital Island, as well as the stevedores, are continually in quarantine—none of them being allowed to visit the city without special permission from the Health Officer, and never within six days from exposure to infection. To the time of incubation a great deal of importance is necessarily attached, as upon its proper understanding depends much of the success of our commerce with the southern ports. It will be seen—allowing five days' passage from Havana for steamers and ten or twelve days for sailing vessels, and also giving six days as the longest incubation of the disease—that unless there is sickness on the passage the vessel is not detained any longer than is necessary to cleanse and fumigate her, which does not occupy usually more than forty-eight hours.

As these statements are founded on fact, and as nothing can be said against the success of a system which can maintain an efficient quarantine, and do so without detriment to commerce, we wish to offset our results here against the action of the Health Association to which we have already referred. Indeed we believe that the experience of the Health Officer of this port should be taken as a guide for the action of others in similar positions; and his views, so successfully carried out, should form the basis of a system which should extend over the whole country.

So much, then, for seaport quarantine. If we could be equally positive regarding measures which might be adopted for inland quarantine, a very important problem would be solved. The difficulty seems to be in isolating towns and communities, without serious injury to commerce, and to necessary intercourse. But such obstacles to the success of any general system of protection of inland towns are not insurmountable. A step in the right direction, which has often been urged in these columns, is the formation of a National Health Bureau, having jurisdiction over large districts of country, and clothed with extraordinary powers during epidemics. Each town along the Mississippi could have protected itself by refusing a wharfage to infected vessels, or each railroad-station could have forbidden the landing of infected persons; but, as shown by the uninterrupted passage of the steamer Porter up the river, scattering disease in her wake, there is wanted a power behind that of individual municipalities—and that is, to prevent the spread of the disease from the start, to quarantine the first cases, and to assume official control of all the highways of travel.

While upon the general subject of the prevention of yellow fever, we take occasion to refer to a communication addressed by Dr. S. O. Vanderpoel to the President of the United States, and published in another column. The suggestions there-

in contained deserve thoughtful consideration. The idea is to stamp out the disease at its point of endemicity, and, as a means to such an end, solicit the aid of Spain in the appointment of a committee of conference. It cannot be doubted that Spain will be ready to act in the matter, if our government shall see fit to take the initiative, and, judging from the present indications, the latter condition will probably soon be fulfilled.

#### ADULTERATIONS IN SUGAR AGAIN.

The agitation in regard to the adulteration of sugar continues to be quite active. Lately it has been taking the form more of efforts on the part of the refiners to refute the charges against themselves. Very plausible assertions are made to the effect that the hue and cry about adulterations is a job put up by the Cuban planters to make the present tariff, which favors the refiners, unpopular. The tariff now varies with the grade of the sugar, and allows of the importation and refinement of the low grades at a profit. It is proposed to substitute for this a single uniform tariff for all grades, a change that would greatly harm the refining industries. To help such measure the refiners and importers are to be made unpopular in every way.

Then, further, when the present tariff was adopted, a number of old firms were not able to keep up their business under its workings, and eventually failed. They are now eager to encourage any effort likely to secure a return to the old basis. Probably these parties are quite as active as the Cuban planters in the present agitation.

Undoubtedly, however, the most active agents in the matter have been the jobbers and smaller dealers who have found their business injured by bad lots of sugar. The extent and danger of the adulteration may have been exaggerated; but the fact of its occurrence is undeniable. Glucose can be made at an expense of about four cents a pound. If mixed with other sugars, it causes in a few weeks a change of appearance, which is easily observed. When barrel after barrel of sugar thus changes and deteriorates, there can be but one explanation of the cause.

The glucose is made from corn-starch by means of sulphuric acid. It retains a little of this acid, amounting sometimes to two or three drachms to the gallon of syrup. Such a mixture used constantly, and in any considerable quantity, might easily be injurious. Practically, however, the adulteration with glucose is of very much more injury to the dealer than the consumer, and bears rather upon the public palate than upon its health.

The use of mineral salts, however, in refining, is a question that well deserves an investigation, even if it result in favor of the refiner. Each American citizen averages forty pounds of sugar a year. He should know what he is getting, and should have the privi-

lege of taking his poisons separately. The agitation of the matter has already had the result of improving the quality of refined sugars, and may be of further benefit in securing through some special investigation a more definite knowledge of the dangers lurking in adulterations.

#### SANITARY MATTERS AND THE GENERAL GOVERNMENT.

IN noting the signs of the times from a sanitary point of view, the outlook is quite promising. To begin at the beginning, the President in his annual Message has seen fit to call the attention of Congress to the necessity for legislation in sanitary matters, and especially to the creation of a National Health Bureau. This is the first time that this has been done, and it is consequently entitled to special mention in the history of sanitary affairs in general. It is true that the recent pestilence has invited governmental attention to the matter, but that any decided stand should be taken by the President is of itself a matter of great congratulation. The profession is ready to endorse all that is said on this matter, and the views are in strict accordance with what has long since been advocated by the RECORD, and with what we believe to be the advanced professional sentiment of the day. The chief Executive of the nation speaks well and truly when he says:

"The fearful spread of this pestilence has awakened a very general public sentiment in favor of national sanitary administration, which shall not only control quarantine, but have the sanitary supervision of internal commerce in times of epidemics, and hold an advisory relation to the State and municipal health authorities, with power to deal with whatever endangers the public health, and which the municipal and State authorities are unable to regulate. The national quarantine act approved April 29, 1878, which was passed too late in the last session of Congress to provide the means for carrying it into practical operation during the past season, is a step in the direction here indicated. In view of the necessity for the most effective measures, by quarantine and otherwise, for the protection of our seaports, and the country generally, from this and other epidemics, it is recommended that Congress give to the whole subject early and careful consideration."

The Senate and the House have taken up the subject with a promptness and earnestness which augur well for the future. Both have brought up the subject, and the probability is that there will be a joint committee with full power to act in the premises. The Senate committee has already appointed sub-committees each for the exercise of the following respective functions: First, on the constitutional power of the government in public health matters; second, to prepare a circular letter of inquiry to be addressed to boards of health and physicians throughout the country, and to prepare a plan of investigation; and thirdly, on the selection of experts to be appointed by the committee. It is quite probable that the circular letter will be confined to questions affecting quaran-

tine external and internal, and the legislation required to make it effective.

It would appear from the present complexion of affairs that the Senate is not yet satisfied regarding the investigations into the causes and methods of prevention of yellow fever, and that a commission of experts is to be appointed for the purpose of furnishing extra information. It is quite necessary, however, that the appointment of members of such a commission should be made with the greatest care, and with special reference to their peculiar fitness for the work. As the work of the commission must be carried on from a thoroughly impartial standpoint, the man with a theory or a hobby should be shunned, and the opinion of the profession should be taken as the best guide for the selections. We say this much in regard to this particular matter, for the reason that it seems to be necessary, in the face of the pernicious influences which are already at work in Washington to secure appointments. The President is so thoroughly interested in the work that it would be eminently just and proper to entrust him with the nominations. If this were done, the appointment, being the first of its kind that has ever occurred, would have sufficient honor attached to it to secure the best talent in the medical profession.

#### THE TIMES AND MEDICAL REFORM.

IN a recent issue of the *New York Times* appears a very sensible article referring to necessary reforms in medical education. It is so seldom that such papers give an intelligent view of the situation that we take pleasure in calling attention to the fact. The writer, after pointing out the present defects of college training, very properly urges the necessity of preliminary examinations, graded courses, and independent examinations. The arguments and conclusions, which are not, however, new to the profession, are directed towards the prospective management of the Johns Hopkins Hospital, and are well put. While we are willing to endorse everything the writer may have said regarding the necessities for reform and the means to be taken towards that end, we hope his statement, that the majority of the professors of medical schools hold their positions for purposes of medical advertising, is not true. But it is to be expected under the circumstances that we take the bitter with the sweet.

ESMARCH'S TREATMENT OF CANCER.—Fowler's solution, one drop three times a day for three days, then increase the dose by one drop every three days till intolerance of the remedy follows. Apply the following locally: acid arsenious and morphia muriate, each 0.250 gmm.; calomel, 2.00 gmm.; powdered gum-arabic, 12.00 gmm.; mix. At first sprinkle only a little upon the ulcer, gradually increasing the quantity to a teaspoonful. This overcomes the odor, causes a hard eschar to form, and healthy granulation takes place.



## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, Nov. 13, 1878.*

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

#### REPORT OF COMMITTEE ON MICROSCOPY.

DR. CARPENTER, on behalf of the Committee on Microscopy, submitted a report of the examinations of the tumor of choroid plexus presented by Dr. Liautard, of the stomach exhibited by Dr. Blumenthal, and portions of a lung shown by Dr. Lewis Smith.

The report was as follows:

The tumor, which, removed from the choroid plexus in a horse, and presented by Dr. Liautard at a Stated Meeting, held Sept. 24, 1878, was found to consist almost exclusively of fibrous tissue, in which were a number of bodies that exhibited the physical properties of calcareous matter. By testing with iodine it was determined that these bodies were not corpora amylacea. They were readily dissolved by nitric and muriatic acids, and therefore were regarded as brain sand, frequently found in connection with tumors of the choroid plexus.

The tumor belongs to the variety known as psammoma.

The specimen of induration of the pyloric extremity of the stomach, presented by Dr. Blumenthal at the same meeting, was found to consist almost exclusively of fibrous tissue. It was therefore simple fibrous degeneration of the walls of the stomach, a not very uncommon disease.

The lungs, presented by Dr. J. Lewis Smith at the same meeting, contained the lesions of broncho-pneumonia.

WESLEY M. CARPENTER,  
T. E. SATTERTHWAITHE.

#### PERMANENT CURE OF URETHRAL STRICTURE.

DR. F. N. OTIS presented a specimen of stricture of the urethra sent to him by Dr. Stuart Eldridge, of Yokohama, Japan. The following was a history of the case:

\*Patient admitted to Yokohama General Hospital December, 1874, with urethral stricture and urinary fistulae, with history of a severe gonorrhoea nine years before, and repeated subsequent attacks. In 1870, four years previous, had been operated on by perineal urethrotomy, external; after treatment neglected, and recontraction resulting; finally an abscess of the perineum, leaving two perineal fistulae.

In May, 1875, urine passed in very fine, small stream, size of a knitting-needle—interrupted—most of urine passing through the fistulae. Whole urethra extremely knotted and indurated, the thickening and hardening being most extensive on the proximal half of the penile portion.

Meatus 15. Stricture was found along the whole anterior urethra nodulated and irregular, and narrowing at about 4 inches to  $4\frac{1}{2}$  mm., where a hard and insensitive stricture of this size extended for nearly an inch. He was operated on by division with Holt's instrument, guarded by a Maisonneuve conductor, until firmly arrested at the bulbo-membranous junction. The instrument was then expanded to the utmost. On withdrawal, the conductor was found to have curled up on the bulbous urethra. Examination then detected another stricture, about  $5\frac{1}{2}$  inches from meatus, of same calibre as the anterior,

$4\frac{1}{2}$  mm. The Holt was then passed into the bladder, and all strictures raised to 25 mm. After a week only No. 16 steel sound would pass. Patient was furnished a bougie No. 10, and discharged from hospital.

Sept. 6, 1875, patient was readmitted; strictures recontracted, fistula open, and albumen and casts in the urine; also suffering from cirrhosis and tertiary s. rheumatism. Retention occurred; catheterism failing, the bladder was aspirated above pubis. A few days later a small flexible catheter was passed. Anterior stricture was found recontracted to  $7\frac{1}{2}$ , while the one at the bulb would only admit a fine filiform instrument. Holt's dilator was again used, and the urethra carried to 27 mm. The anterior part of the bulb, apparently the only healthy portion, was then measured with Otis's urethra meter, and found to be 29. Otis's urethrotome was then introduced and expanded up to 29 mm., and all strictures incised on the floor of the urethra. No. 30 solid steel sound then passed easily. Urethral flow and partial suppression of urine followed. A week after No. 30 solid sound was easily passed, and afterward, at intervals of a week, for five weeks. No subsequent instrumentation for fear of suppression, except by the patient, who passed a No. 7 English (16 French) flexible bougie for his own amusement, but without any necessity. From the time of last operation until death, June, 1878, patient was without the slightest urinary trouble. Death resulted from a syphilitic ulceration of the larynx. Post-mortem examination showed easy passage through the entire urethra of a solid sound of 25 mm., and complete absence of any rigidity of the urethral walls or abnormal narrowing at any point. On the right side of the roof of the canal appeared, about 2 cm. from meatus, a smooth elastic, perhaps cicatricial, surface, 8 mm. in length by 4 mm. in breadth: at 3 inches in the median line of the roof a small bridle of soft elastic tissue, covering a false passage, 2 mm. in length. About  $6\frac{1}{2}$  cm. posterior to this is a small irregular, but soft, distensible cicatrix, 5 mm. in length by two in breadth, while extending backward from a point opposite is a fine linear cicatrix,  $1\frac{1}{2}$  cm. in length.

At the bulbo-membranous junction there is an oval depression, covered with a smooth, elastic, soft membrane, supposed to have been the location of the mouth of the sinus which previously existed, the more so, as a probe entered here about 2 mm. There is also in the membranous portion a false passage of 5 mm. in length. All the points presumably occupied by cicatricial tissue were only distinguishable by their superior smoothness and the apparent absence of glandular stricture when examined by a low power.

The case, taken in all its bearings, seemed, according to Dr. Otis, to go far toward proving the permanent curability of urethral stricture even under the most unfavorable circumstances.

#### GUNSHOT WOUND OF THE EYE—REMOVAL OF THE ORGAN.

DR. JOSEPH W. HOWE exhibited an extirpated eye, containing in its substance a target-dart.

Wm. Vanhousen, et. 35, proprietor of a shooting-gallery, was shot in the right eye with an iron dart, on Sunday morning, October 27th. The gun was accidentally fired at a distance of three feet from the patient's head. The dart entered the eye at the outer edge of the cornea, and lodged in the centre of the organ. I saw the patient two hours after the accident. He was then suffering from an unusual amount of shock. The extremities were cold and clammy, and the pulse thready and intermittent. There was a

lacerated wound of outer edge of the cornea, about a quarter of an inch in length, through which the foreign body could be felt with a probe. On account of the patient's condition no attempt was made to remove. Five hours subsequently, when reaction had set in, I introduced a narrow drawing forceps, seized the flattened end of the dart, and endeavored to extract it; but the end spread out, caught in the tissues anterior to it. Consequently it could not be drawn out without cutting or lacerating the tissues. As the eye was completely destroyed, I advised its extirpation. On the third day after the accident the patient consented to the operation. It was performed in the usual manner, by cutting through the conjunctiva near the edge of the cornea, drawing the tendons forward with a strabismus hook, cutting them as well as the optic nerve close to the ball. The dart was found to occupy the centre of the ball, its point touching the retina behind on the median line, just as shown in the specimen. The principal points of interest in this case are, first, the occurrence of a great amount of shock from a comparatively small injury—I have never seen it before; and, secondly, the fact that the dart did not pierce the retina on the side opposite to its entrance. It shows that the tissues of the ball have an immense resisting power, which I was not previously aware of.

Dr. NOYES remarked that it was very uncommon for foreign bodies, discharged against the eye, to go entirely through the organ.

PISTOL SHOT THROUGH RIGHT VENTRICLE, SEPTUM, AND AORTA—BALL LYING IN LEFT VENTRICLE—APPARENT RECOVERY AT END OF FOURTEEN DAYS—SUDDEN DEATH ON FIFTY-FIFTH DAY.

Dr. V. P. GIBNEY presented this very interesting specimen, on behalf of Dr. F. M. Holly, of Greenwich, Conn. The following notes accompanied the specimen:

"A. J., æt. 18 years, farm-hand, was on the 7th day of July, 1878, accidentally shot by a companion with a small Smith & Wesson revolver, calibre  $\frac{3}{16}$  inches. When seen by his attending physician, Dr. Mead, about an hour after the accident, he was in a state of partial collapse, the result of shock. He had no remembrance of the shooting, or of having fallen into the brook near which he was sitting at the time. He rallied rapidly without cough or expectoration, or any unfavorable symptoms other than slight dyspnoea, accompanied with pleuritic stitch on both sides for a few days. In less than a fortnight was again at work apparently well.

"He continued in good health, performing the ordinary labor of a farm-hand without inconvenience, until the morning of August 30th, when, after a full breakfast, he went into the field, and was found about twenty minutes afterward dead behind the plough. Autopsy twenty-four hours after death: usual post-mortem signs present. A small cicatrix near left nipple one and three quarter inches above, and toward median line. On opening thorax, the left pleura and the pericardium were found distended with serum and coagula. A small cicatrix could be seen on the anterior border of the upper lobe of left lung in a line with the external cicatrix, and under this was found an opening of one-quarter inch diameter in the pericardium. The lung was adherent, by firm bands of organized lymph in the immediate neighborhood of the cicatrix, to the costal pleura and pericardium. Opposed to the opening in the latter, in the upper anterior margin of right ventricle, was found a small

aneurismal sac of the capacity of not more than one drachm, the walls of which were very attenuated. This was ruptured, and a probe passed through the opening entered the ventricular cavity. The effusion into the chest was accounted for by this opening in the pericardium. A careful search failed to discover the ball."

When I received the specimen, I opened the left ventricle, and found a small ball lying behind one of the pillars of the columnar corné a little above, and to the left of the apex of the cavity. A delicate membrane covered the ball, and I left it just as it now can be seen in the specimen. On a more careful examination, an opening was traced through the upper portion of the septum, through the semilunar valve, lying against the septum, through the aorta itself to the left auricle. All these openings were found on a line with the opening into the right ventricle. The conclusion, then, seems to be irresistible, that the ball must have encountered a well-filled left auricle, been spent, and easily arrested, and have dropped down through the auriculo-ventricular opening, and have lodged about its present site.

The sac on outer side of heart seems to be the parietal layer of the pericardium, and must have been formed by the blood forced out at the impulses of the heart. If this can then be properly called an aneurism, it is a dissecting aneurism. The wound through the right ventricle must have been valvular, and the pericardium here quickly healing prevented the escape of blood. This finally rupturing from over-distention, in all probability caused death.

It has come now to be considered no extraordinary thing for a man to carry about in his heart a pistol-ball, or even a musket-ball. Dr. Purple has gathered some valuable statistics on this subject. The specimen presented by Dr. Hamilton to this Society is, I believe, the most remarkable one on record, so far as time goes. This case is familiar to all as the one where the man lived twenty years after the accident. Dr. Hamilton referred to some others at the time of presenting the specimen, one of which was the case reported by Dr. Hopkins, of Ohio, where the patient survived fifteen days with a pistol-ball in the left ventricle. This case, with the discussion, can be found in the *MEDICAL RECORD*, Vol. II., p. 18. I have consulted the notes of many cases, and I might say, in passing, that Dr. Purple has given an admirable bibliography in his article published in the *New York Medical Journal* for May, 1855.

In the "Surgical History of the War of the Rebellion" is a paper on this subject, with foot-note, giving references to the cases collected by Dr. George Fischer, and published in the *Archiv für klinische Chirurgie*, 1863—those of M. Jamain in an inaugural thesis, and those of Olivier (l'Angia), etc.

In St. Thomas' Hospital Reports, 1870, Dr. James F. West has a valuable paper on "Wounds of the Heart." The members of the Society will recall the Poole case and many others; but what seems the most remarkable circumstance in connection with the case, whose history I now present, is the fact of the patient *living fifty-five days* with wound directly through the aorta at its beginning. In the discussion which followed the presentation of Dr. Hamilton's specimen, Dr. Post is reported as having said that "it is a well-established fact that wounds of the large vessels near the heart were much more promptly fatal than similar wounds of the walls of the heart itself." (*RECORD*, Vol. II., p. 19.)

Now, this case should have been promptly fatal, according to the facts thus established, and yet it



seems to have been possible for the patient to have lived indefinitely with this hole directly through the wall of the aorta.

(To be continued.)

## THE PHILADELPHIA PATHOLOGICAL SOCIETY.

### AN ABSTRACT OF ITS NOVEMBER MEETING.

(Reported for THE MEDICAL RECORD.)

THE Society met on Thursday evening, November 14th, at 8 P.M.; H. LENOX HODGE, M.D., President, in the chair.

#### ABDOMINAL TUMOR.

DR. L. A. KELLEY presented a tumor removed after death from the abdomen of an infant, thirteen months old. The abdomen was first noticed to be enlarging when the baby was nine months old. The tumor, after its removal, weighed more than the body of the infant. The specimen was presented to the Society on account of the rarity of carcinomatous disease in children.

#### TUMOR OF THE BRAIN—CEREBRAL THERMOMETRY, AND THE LOCALIZATION OF CEREBRAL FUNCTIONS.

DR. CHARLES K. MILLS presented the following history and remarks: R., aged 36, was admitted to the Philadelphia Hospital on the 16th of September, 1878. The patient was a painter by trade. Up to within two years before his death, which occurred on October 16, 1878, he had been intemperate. Six years ago he had had a chancre, but it was not followed by any secondary symptoms. Fifteen months ago he had, upon one occasion, drunk very deeply, and fallen heavily on the pavement. This "outing" was followed by severe vomiting and protracted and harassing headache. His health, from this time, began to fail. The headache became persistent. Indefinite mental disturbances began to show themselves, with loss of power in the limbs. The vision became more and more affected. The pain in the head was always worse at night. There was marked choking of the discs and mental habitude, with hallucinations, but no delirium. The patient began to lose both mental control and moral sense. There were involuntary discharges of feces and urine. Motion was partially paralyzed, and sensibility dulled, and occasionally there were spasmodic contractions. Later in the course of the disease vomiting disappeared as a symptom. None of the muscles supplied by the cranial nerves were paralyzed. There was no vertigo and no convulsions.

As the man became more and more confined to his bed, bed-sores appeared in the sacral region. The patient was not emaciated in appearance, and the muscles were not wasted. A peculiar symptom of the case was that the man always held his head in one position, *i. e.*, looking upwards and backwards. The eyes protruded, and the pupils were dilated. Three weeks before death a severe conjunctivitis supervened.

So much for the objective symptoms. It was difficult to determine exactly the man's psychical state. For a long time before death there was great mental slowness. The "delirium of grandeur," so called, was never present. His general condition seemed to be one of depression. He apparently had great difficulty in directing the movements of the body. He would not give any answer whatsoever to our ques-

tions. We at first thought that this was due to deafness; but found at last that an answer could be called forth if the impression made were great enough.

He was not aphasic. What he said was clear and distinct. There was no mistake in articulation or pronunciation. But he could not retain hold of the same idea for any length of time, and suddenly stopped speaking because he had lost the thread of his discourse. There were, every now and then, volcanic outbursts of speech. Sometimes what he said during these paroxysms of language was quite well connected and sensible. None of the special faculties were paralyzed, except smell, which was slightly defective. There were no wastings, and no vaso-motor disturbances in the upper extremities. The left arm and hand were somewhat weaker than the right. He frequently carried his hands to his forehead, showing that they were not paralyzed, but their movements were awkward.

The legs were extended and relaxed, or drawn up and flexed. If left entirely alone, they would always become in time relaxed. All of his movements seemed to be largely automatic.

Hunger and thirst were prominent symptoms. He drank and eat enormously. He died, as above stated, on October 16th. For twenty-eight days previous to his death, his morning and evening temperatures were carefully noted. On the first fifteen mornings the temperature was *below* the normal standard of health. In twenty-six evening records the temperature was higher than in the morning. On the ten days previous to his death, the morning and evening temperatures were both *above* the normal standard of health.

During the seven days previous to his death the cerebral temperature was taken in six places. In the course of these observations, which were made with Dr. Mills' modification of E. C. Seguin's surface thermometer, he was able to verify the statements of Paul Broca and Landon Carter Gray, who read a very interesting paper on Cerebral Thermometry at the last meeting of the American Neurological Association. The average temperature of the left side of the head was found to be *higher* than that of the right side. The stations on the head, at which the observations were taken, were, *viz.*: (1), middle frontal, in the middle of the forehead; (2), middle occipital, in the middle of the occiput; (3), right, and (4) left frontal, just over the outer corners of the orbits; and (5) right, and (6) left parietal stations. The parietal stations were just above the ears. The observations were made between three and five o'clock in the afternoon. During the seven days above mentioned, the temperature of the middle frontal station averaged  $96\frac{1}{2}^{\circ}$ ; that of the middle occipital,  $95\frac{1}{2}^{\circ}$ ; right frontal,  $95^{\circ}$ ; left frontal,  $94\frac{7}{10}^{\circ}$ ; right parietal,  $94\frac{7}{10}^{\circ}$ ; left parietal,  $94\frac{4}{10}^{\circ}$ . The highest temperature at any one time was that of the middle frontal station; the next highest that of the middle occipital. The middle frontal station was that nearest to the tumor. The high temperature of the middle occipital station was due, no doubt, both to the fact that the patient lay so much on the back of his head, and also to the concurrence of sinuses at that point.

All the temperature records which were obtained from surface thermometry of the head during these seven days, were *higher* than the average normal temperature of the head.

At the *autopsy*, which was made six hours after death, the body was not emaciated and the muscles were in fair condition. The left eye was slightly in-

flamed. The calvarium was found to be adherent to the dura mater. Both dura and pia mater were injected.

A large tumor was found seated in the right frontal lobe, three inches in length, three and one-half inches in depth, and two and one-half inches in width. The tumor had destroyed the anterior half of the first frontal convolution and of the second frontal convolution. It had also destroyed the anterior half-inch of the corpus callosum and a segment of the gyrus fornicatus. It did not encroach upon the third frontal convolution.

The hemispheres of the brain were found to be thrust widely apart. The tumor had taken its origin from the substance of the frontal lobe. It had an irregular, nodulated surface, was pyriform in shape, and was partially surrounded by a firm and dense capsule. The tumor turned out to be a fibroma. There were numerous evidences of true congestion throughout the brain. The brain was consistent, and was found to weigh the enormous amount of 5 lb. xii. (62). There were no cysts or clots, and no meningitis.

DR. MILLS considered that his experiments had assisted in establishing the fact that the frontal lobes of the brain are the inhibitory centres which are at the basis of attention. He also thought that his experiments had shown that the temperature of parts adjacent to a cerebral tumor was raised above that of the rest of the head. In one of Ferrier's experiments with monkeys, as in the present case, there was marked nystagmus. There was no true paralysis.

In answer to the question as to how the patient came to use his arms and hands intelligently, Dr. Mills was of the opinion that the movements were largely reflex.

DR. H. LENOX HODGE wished to call attention to two points of great interest in the case. In the first place, the locality of the tumor had been determined by the patient's symptoms; and, in the second place, the writer claimed to have obtained excellent results from surface thermometry. He thought, however, that observers should be very cautious in accepting the results of surface thermometry. It was still a matter of doubt in his mind as to whether a thermometer applied to the outer surface of the head was able to gauge with absolute certainty the temperature changes of the brain substance.

In answer to a query regarding the possibility of an encapsulated tumor's eating away the brain-substance, Dr. Mills stated that the tumor was partially capsulated and partly free.

DR. JOHN GUITERAS had known of cases of destruction of the anterior lobes of the brain without any of the characteristic symptoms of Dr. Mills' case. He was glad to see that Dr. Mills had been able to verify the experiments of Broca and of other experimenters in the same field. He thought that it was now definitely settled that using either side of the body caused the temperature of the opposite side of the brain to rise. He thought that lesions of the cortical substance of the brain were those likely to give rise to sclerosis. The corpus callosum he believed was concerned in controlling the temperature of the body.

DR. MILLS closed the discussion with a demonstration upon the blackboard of his modification of E. C. Seguin's surface thermometer. The sole objection to Dr. Seguin's instrument, to his mind, lay in the fact that the results obtained by it were only too likely to be affected by slight changes in the temperature of the surrounding air. For the purpose of removing this element of uncertainty in the use of the

instrument, he had devised the following modification: Taking a common test-tube, he had placed two corks in it, one about half-way between its mouth and the bottom, and one on a level with the mouth. In these two corks he had suspended a Seguin thermometer, with its tube projecting beyond the second cork and its bulb on a level with the outer surface of the lower cork, so that, in placing the apparatus against the head, the mouth of the test-tube and the outer surface of the lower cork and the lower or flat surface of the bulb would all touch the skin. Another advantage in this modification he thought rested in the fact that the height of the mercury was not affected by the heat of the fingers, since the fingers grasped not the tube of the thermometer, but the end of the test-tube.

DR. MILLS understood that in one of Broca's cases of cerebral emboli, the local temperature was found to be lower than that of the rest of the head. His experiments had proved that this rule was reversed in cerebral tumors.

## Correspondence.

### THE PREVENTION OF YELLOW FEVER.

HON. R. B. HAYES, *President.*

SIR:—In compliance with your suggestion made at the short interview I had with you, I submit in writing the proposition which will go very far to prevent the introduction of yellow fever into this country.

*Argument.*—It is an almost universally admitted opinion of the medical profession, founded on long experience and observation, that yellow fever is an *exotic* disease; that whenever it makes its appearance on any part of our extended seaboard it is always brought from without.

While, therefore, the necessity of quarantine restrictions, the nature of which we do not at present propose to argue, are apparent,—no less also the necessity of enlightened sanitary regulations in every threatened locality,—it must also be admitted that if repressive action can be taken at the place of *endemicité*, it will be far more rational and effective than to wait until the scourge is at our thresholds.

Fortunately we are not without analogies in this particular. The countries of Western Europe are situated with respect to cholera, very much as this country is to yellow fever. It was long ago recognized that in these days of active commercial and personal interchange with different countries, no matter how careful might be the sanitary regulations in a given locality, there must of necessity be many others where they were lax, or impossible of application, and where cholera would yearly find ingress. It was found also that the pilgrimages of Mohammedans to the shrine at Mecca, were the principal agents for disseminating the scourge. Pilgrims from the further East in large caravans met those from the shores of the Mediterranean at this common spot, and transmitted to them the infection. They, in returning, distributed it to all countries through which they passed.

International congresses of the countries of Europe were from time to time assembled to consider the most effectual means for the repression of the epidemic. As a result, these governments maintain a corps of medical inspectors at every seaport from Syria extending down the Red Sea, where returning pilgrims undergo quarantine and sanitary inspection before



embarking on the numerous vessels which convey them to their respective countries. Further, not content with this alone, they have impressed upon the Turkish government the necessity of a government sanitary officer, who accompanies each caravan, so that cases of the disease may be removed and isolated on their first appearance. This has now been in operation several years. Thanks to the activity of the French government, which has taken a principal part in these repressive measures, and which yearly isolates hundreds who arrive at the sea-shore, the disease has been of late years almost unknown in Europe.

The same principle may be applied with greater facility by this country with reference to the prevention of yellow fever. Though it yearly makes its appearance in different parts of the West Indies, in Vera Cruz, in the southern hemisphere at Bahia and Rio Janeiro, still there is but *one* principal centre of its propagation, that of Havana,—appearing always later at the other West India ports. If it is totally repressed at Havana, there would be little cause for anxiety so far as any part of this country is concerned.

The epidemic in the ports of the southern hemisphere prevails chiefly during our winter, when there is no apprehension.

It is notorious that the hygienic condition of Havana is very defective; that the merchant marine are compelled by the peculiarity of the location to lie in the focus of all the impurities, and stifling exhalations; and that, as a result, no vessel can remain there any length of time without becoming herself infected, and the crew the victims of the malady.

Without being myself personally cognizant of the condition, yet from years of intercourse with those whose whole business is with that port, and who from necessity have studied the modes of propagation of the fever, I am safe in asserting that all this can be changed, and the disease in a great measure stamped out. It is not necessary in this communication to detail the particular conditions of the locality, nor its facilities for remedy; but that it is possible to remedy existing defects is admitted by every one familiar with them.

I therefore submit the following practical *proposition*: That the government of Spain be solicited to unite with this government in the appointment of an International Commission, who shall proceed to Havana, with a view to examine the sanitary surroundings of that city and their relations to the propagation of the scourge, and that the Spanish Government be earnestly requested to carry out fully the joint recommendations of such commission.

S. OAKLEY VANDERPOEL, M.D.  
Health Officer Port of New York.

QUARANTINE, NOV. 27, 1878.

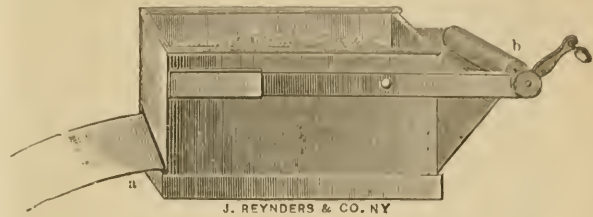
## New Instruments.

### A NEW APPARATUS FOR MAKING PLASTER-OF-PARIS BANDAGES.

THE annexed engraving illustrates an apparatus for making plaster-of-Paris bandages, which has been perfected by Messrs. John Reynders & Co., of this city. It makes the bandages and rolls them up, ready for immersion. It consists of a box having a narrow opening in the front and in the back, situated slightly above the bottom, through which the bandage is to pass. At (b) the arrangement is shown for rolling up

the bandages. To ensure even distribution of the plaster on the bandage, it passes over a roller over the front opening nearest (b).

To make plaster-of-Paris bandages, the plain bandage is inserted at (a), passed along the bottom of the



box, through the opposite opening and the end attached to the roller (b). The box is then filled with plaster-of-Paris, and the bandage rolled up. The roller is so arranged that the bandage can then be readily removed. The rolling arrangement can be removed from the sides of the box and kept in the same when not in use. A cover for the box prevents the escape of plaster dust while the machine is being operated.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 1st to December 7th, 1878.*

PAULDING, H. O., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Cheyenne Agency, D. T. S. O. 140, Dept. of Dakota, Nov. 25, 1878.

SEMG, B. G., 1st Lieut. and Asst. Surgeon. Granted leave of absence for two months. S. O. 260, A. G. O., Dec. 4, 1878.

FINLEY, J. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month. S. O. 220, Dept. of the Missouri, Dec. 3, 1878.

DE LOFFRE, A. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months. S. O. 260, C. S., A. G. O.

TAYLOR, B. D., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort A. Lincoln, D. T. S. O. 140, C. S., Dept. of Dakota.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 7, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Nov. 30, 1878. | 0             | 10             | 100            | 3                          | 3        | 53          | 0          | 0             |
| Dec. 7, 1878.  | 0             | 7              | 120            | 1                          | 8        | 55          | 0          | 0             |

WEEKLY BULLETIN OF THE PUBLIC HEALTH issued by the Surgeon-General of the Marine Hospital Service, Dec. 11, 1878, for the week ending Dec. 7th.

Yellow fever has almost wholly disappeared from the Mississippi Valley. In New Orleans 4 deaths were

reported last week. The total number of cases up to date is reported as 22,600. There was 1 death and 1 new case at Port Gibson. One new case, a returned refugee, at Meridian, and 1 death at Memphis on Dec. 6th.

**Baltimore.**—For the week ending Dec. 7th, the total deaths were 120; 20 cases of enteric fever and 5 deaths; 5 cases of diphtheria, and 1 death. Pneumonia prevalent.

**Brooklyn.**—For the week ending Nov. 30th, 155 deaths from all causes. Annual ratio per 1,000 of the population, 14.68. 41 cases of scarlet fever, and 6 deaths; 37 cases of diphtheria, and 12 deaths; 22 deaths from phthisis; 36 from other pulmonary diseases. Week ending Dec. 7th, reported deaths from all causes, 175. Rate 16.6. 38 cases and 6 deaths from scarlet fever; 33 cases and 12 deaths from diphtheria.

**New York.**—Week ending Dec. 7th, deaths from all causes, 455. 28 deaths from scarlet fever, 19 from diphtheria, 74 from phthisis, 49 from pneumonia, 17 from bronchitis. During 1878 only 2 deaths from small-pox have occurred in the city; this immunity is attributed to the efficient system of free vaccination that is carried out.

**Philadelphia.**—Week ending Nov. 30th, total deaths, 299. Annual rate, 17.75. 7 deaths from diphtheria (minors); 6 deaths from scarlet fever; 8 from enteric fever; 53 from phthisis; 20 from pneumonia.

**Cleveland.**—Week ending Dec. 7th, total deaths, 49; 7 cases of scarlet fever, 5 deaths; 23 cases of diphtheria, 8 deaths.

**Milwaukee.**—Week ending Dec. 7th, deaths from all causes, 38; 20 cases of diphtheria, 9 deaths.

**Savannah.**—For the week ending Nov. 29th, the deaths were 29. The rate, 47. 10 deaths from zymotic diseases. For week ending Dec. 7th, deaths, 12; rate 22.

**Nashville.**—For the month ending Nov. 30th, the total deaths were 40. Annual death-rate for the month per 1,000, 14.76, 11.42 per 1,000 in the white, 20.87 per 1,000 in the colored population.

**Lynchburg, Va.**—For the month ending Nov. 30th, total deaths, 23. Annual rate, 30.

**Great Britain.**—Week ending Nov. 16th, in 23 of the largest cities of the United Kingdom there were 5,637 births and 3,993 deaths, an annual rate per 1,000 of 35.1 and 24.9 per 1,000 respectively, the death-rate ranging from 14 at Leicester and 17 at Portsmouth and Brighton to 32 at Liverpool.

**London.**—The total deaths for the week were 1,665, a rate of 24.5 against 20.2 and 23.2 in the two preceding weeks. There were 434 deaths from pulmonary diseases, 269 being from bronchitis; 206 deaths were from zymotic diseases, 64 being due to scarlet fever, 16 to small-pox. No death from the latter disease occurred in any of the other 19 large cities of England.

**Liverpool.**—For the week ending Nov. 16th, total deaths, 322. Annual rate, 31.5. 59 deaths from scarlet fever, 2 from diphtheria.

**Edinburgh.**—In the week ending Nov. 16th the death-rate fell from 23 in the previous week to 16, with only 2 deaths from zymotic diseases.

In **Glasgow**, in the same time, the rate rose from 21 to 26.

**Dublin.**—In the week ending Nov. 16th, total deaths, 176. Annual rate, 30. From zymotic diseases, 39 deaths, phthisis causing 32, other pulmonary diseases, 42. There were 42 cases of small-pox in the hospitals, and 11 deaths from the disease.

**India, Madras.**—Enteric fever of a fatal type is

very prevalent in the native portions of the city, which are described as very filthy. In 1876 and 1877 the deaths from small-pox in India amounted to 200,000; in the preceding two years, to 500,000. During 1875 and 1876 only two deaths from this disease occurred among 120,000 European troops, the immunity being clearly due to vaccination.

**Africa, Tangier.**—During the four weeks preceding Oct. 5th there were 1,069 deaths at Casa Blanca from cholera; 163 from small-pox; 32 from typhus fever. Total deaths from these diseases being 1,264 in a population estimated at 5,500.

**Harana.**—During the week ending Dec. 7th there were 10 deaths from yellow fever, and 12 from small-pox.

**St. Thomas.**—The U. S. consul telegraphs, Dec. 6th, that yellow fever has appeared.—Jno. M. WOODWORTH, Surgeon-General U. S. Marine Hospital Service.

DR. J. C. CULBERTSON, of Cincinnati, editor of the *Cincinnati Lancet and Clinic*, has been on a short visit to this city.

DR. ANDREW CLARK, F.R.C.P. of London, delivered a lecture on the Varieties of Phthisis, at Bellevue Hospital Medical College, to a large audience of students and medical men, on Tuesday afternoon, December 10th (*vide* page 461).

At the conclusion of the lecture, Prof. James R. Wood, M.D., on behalf of the profession of New York and of the College, thanked the gentleman for his discourse, and said many pleasant and appropriate things bearing upon the cordiality of feeling between the profession of this country and that of Great Britain. Dr. Clark responded by reiterating the sentiments, after which the audience dispersed. During his short visit to this city Dr. Clark has been the guest of Prof. L. A. Sayre, and has taken every opportunity for visiting the various public institutions, and for studying our methods of medical education. On Tuesday evening Dr. Sayre tendered him a reception, at which a number of distinguished medical men were present. At its close, receiving the heartiest wishes for a pleasant voyage, he left for the steamer.

**BULLETINS OF HEALTH.**—As soon as practicable after January 1st, 1879, the Bulletins of Health will be printed in tabular form, and much extended. It is desirable that health officers and registrars of vital statistics who have been asked to furnish information should forward their mortality returns as promptly as possible, thereby contributing greatly to the practical value of the bulletin.

**TETANUS FROM A HYPODERMIC INJECTION OF QUININE.**—Dr. A. Ady, of West Liberty, Iowa, writes: "On the 19th of this month I injected fifteen grains of bromide of quinia, dissolved in thirty minims of dilute alcohol, into the cellular tissue above the crest of the left ilium of a man aged sixty-two years, for an intractable periodic neuralgia in that position. The neuralgia was relieved, but there was more than ordinary inflammation at the site of injection, followed by a forming slough. It gave him considerable pain on the 21st and 22d, when morphia was ordered sufficient to relieve him. During the 23d and 24th he was reasonably comfortable, and sat up most of the afternoon, Sunday, entertaining company. Upon retiring, at 10 P.M., he was seized with tetanus, and died in twenty-three hours. I have been intimate with him for twenty-six years, and, with the exception of occasional attacks of this neuralgia, he has enjoyed uninterrupted health."



## Original Lectures.

### VARIETIES OF PULMONARY PHTHISIS.

A LECTURE DELIVERED IN BELLEVUE HOSPITAL  
MEDICAL COLLEGE, DEC. 10, 1878.

By ANDREW CLARK, F.R.C.P., OF LONDON,

PHYSICIAN TO THE LONDON HOSPITAL FOR DISEASES OF THE CHEST;  
LECTURER ON CLINICAL MEDICINE AND DISEASES OF THE  
LUNG IN LONDON HOSPITAL, ETC., ETC.

(Phonographically reported for THE MEDICAL RECORD.)

#### PART II.

GENTLEMEN:—Now, in the second classification, we have a caseous pneumonic phthisis. The history of this form of phthisis is almost the reverse of that of tubercular phthisis. In tubercular phthisis the constitutional symptoms are profound, while the local symptoms are comparatively few. In the cases I am now describing we have an abundance of local symptoms. By physical examination perhaps one-quarter, one-third, or one-half of an upper lobe of a lung may be found to be uniformly solid. You will have dullness and tubular breathing, which may be accompanied or not by crackling. You may have bronchophony, but the constitutional symptoms are often few. The patient looks fair, has a bright eye, is well nourished, and perhaps slaps his chest and says, "But for this cough I would be quite well." Perhaps the disease has come on insidiously. Perhaps by inflammation not so severe as croupous pneumonia, and the case itself runs for an indefinite time until a certain change takes place which brings it within the pale of serious cases of phthisis.

Suppose, then, we have a case of pneumonic phthisis with unbroken consolidation of the lung or only a few small cavities. The patient is tolerably well, engages in his work, complains comparatively little of constitutional symptoms. By and by the caseous pneumonia breaks up into large cavities, and sooner or later the opposite lung may become affected either by the deposit of tubercles or by the formation of little patches of lobular pneumonia.

Here again the subject is full of complexities and we are in a little difficulty. Sometimes cases of caseous pneumonic phthisis are slow, subacute, almost chronic. But there is a certain section of these cases which is extremely rapid. There are those cases in which the fever rises and the deposit in the upper part of the lung breaks down rapidly, and within four, five, or six weeks the patient dies with all the symptoms of phthisis. These may be called cases of acute caseous pneumonic phthisis, and answers to the true galloping consumption of our forefathers.

Now, passing from this caseous pneumonic phthisis, I will make the following additional statement: The usual rule with tubercular phthisis is death. I do not say there are no exceptions to this; perhaps cases of tubercular phthisis may get better, but they are few. It is in cases of pneumonic phthisis no doubt that the greatest number of recoveries take place, and they take place in one of several ways. Sometimes the exuded caseous pneumonic stuff undergoes fatty metamorphosis and is really absorbed. In other cases the caseous matter, not being quite melted and absorbed, a kind of fibroid change takes place in the lung. It gets hardened, perhaps the bronchial tubes are a little dilated, and the whole affair settles down into a hardened mass. Sometimes these cases of caseous pneumonic phthisis,

whilst destruction is going on, yet develop secondary fibroid change, which does the same for these cases as for those of tuberculous phthisis.

I have said that occasional cases of tubercular phthisis progress slow, and in proportion to the amount of fibroid degeneration. So it is in caseous pneumonic phthisis; for, if it excites a secondary fibroid degeneration the progress is exceedingly slow.

Now we come to speak of the cases which I have classified as fibroid phthisis. The chief clinical characters of fibroid phthisis are these: First it is, as a rule, afebrile. The pulse is quiet, and the general health is but little disturbed. The second point is, that usually, not invariably, there is, just as in the case of croupous pneumonia, a history of some inflammation. It may be a pleurisy, very often it is so; it may be a pneumonia, which has been unabsorbed and converted into fibroid mass, or it may be an irreducible recurring bronchitis which has caused the development of fibroid tissue; and lastly, but rarely, it may be due to some constitutional disease, such as syphilis or cancer. But the main point is, that while it has such a history it is almost always unilateral, while tubercular phthisis is almost invariably bilateral sooner or later. Pneumonic phthisis may be or it may not be unilateral. Fibroid phthisis is in ninety-nine cases out of a hundred unilateral. The local signs of fibroid phthisis are extreme contraction, with pronounced friction-sounds and displacement of organs. With these few points I will narrate the history of one case of fibroid phthisis which will enable you to understand better what you are to expect in these cases than you would from a mere description.

Here is an illustration of an interesting lung which was converted into fibroid mass, was surrounded by an enormous thickening of the pleura, and had upon its summit about an inch of fat, an appearance which I have never seen before or since, although I have examined over four thousand bodies. The subject from whom the lung was taken was my first patient in the London Hospital some three-and-twenty years ago. When he came to me he was a stout man, about fifteen or sixteen stone in weight, and complained of cough and spitting of blood. At that time I did not know much about lung diseases. I examined the man with the utmost care and found nothing. But from the history of the case I thought perhaps he might be suffering from some internal growth, such as an aneurism, or something of that kind. I afterwards learned that he had been under the charge of the surgeon at the other end of the hospital, for a fractured rib, from which he had recovered. I took an interest in the man, but months passed before I discovered anything. The first thing which I noticed was a little crepitation, and the next a little contraction of the right side. By and by he began to have violent paroxysms of cough, which often ended in retching and discharge of fetid mucus from the lung. Then more and more progressively the right side of the chest contracted: the heart was now pulled from the left to the right side; next he began to fail, and a bluish condition of the skin made its appearance. I watched him, and from year to year I found the symptoms steadily increasing. It was, perhaps, at the end of ten years when I exhibited him to my colleagues. He complained that he had a paroxysmal cough, which ended in vomiting and the expulsion of mucus, which was sometimes fetid and sometimes not. He had severe pain in the right side, and that beyond being a little weak and exhausted by the cough he had nothing else to complain of. The physical signs were these: The right side of the chest was contracted. The right arm was slightly

swollen, and the fingers were slightly swollen and bluish. The heart was drawn considerably to the right side; there was dulness over the right side of the chest; there was bronchophony; there was an increase of vocal resonance, and a metallic crepitation accompanied them.

When I exhibited him to my colleagues, they were all of the opinion that he had some growth in the right lung. Well, he went on, the heart becoming more and more drawn to the right side, and finally his skin began to get dry, and he became the subject of albuminuria.

I may here mention, that this is another clinical fact connected with fibrous phthisis. At last the poor man became exhausted, and died.

At post-mortem examination the left lung was found perfectly healthy; I may say, every organ of the body was sufficiently healthy to require no notice, except, perhaps, the kidneys, which were slightly congested, and slightly harder than normal. The right lung contained nothing whatever which by any possibility could be called tubercle. It was clear, therefore, that the fractured rib had set up in the pleura a fibroid change which had invaded the lung, caused its contraction, and ultimately gave rise to the symptoms which ended in death.

With your permission, I will mention just one other case. It is a case which was brought to me by Dr. Pollock, of the Charing-Cross Hospital. This patient sprung from a bronchitic family, and had repeated attacks of bronchitis and severe attacks of pleurisy. When the patient was brought to me there was complete dulness, diminished tactile and vocal fremitus, loud bronchial breathing, bronchophony, and a metallic character to the resonance. His symptoms were paroxysmal cough, often ending in vomiting, and dyspnoea, but no fever.

This case was examined by several physicians, and seven years ago was reported before the Clinical Society of London as a case of tubercular phthisis. Not long ago he died, evidently from an attack of acute bronchitis, brought on from exposure to cold; but before death there was a small quantity of albumen in the urine.

When examined after death these appearances were found: The right lung was perfectly solid; through it ran dilated bronchial tubes, and in the solid portion there were several ulcerations producing cavities.

I have now in my wards, in the London Hospital, three cases, in different degrees of development, which illustrate one of the modes in which fibroid phthisis arises.

The first is the case of a man called Tenny. He is a thin, pale, and delicate man. He is liable to cough with expectoration; but he says he is pretty well, except that he is very delicate. The remarkable feature about the man is, that he has scarcely any lung to breathe by.

His chest seems contracted, and he presents an appearance such as is seen in advanced phthisis; but it is not a case of phthisis at all. The more careful examination you make the more sure you are that you are dealing with a man who has semi-solid, contracted lungs, with but little space left for breathing, and, perhaps, slightly dilated bronchial tubes which hold a small amount of secretion. But there is no evidence of destruction of lung-tissue, and he has had a kind of interstitial pneumonia for many years.

I have watched him from the beginning of the symptoms, which are like those in the other cases described.

The second case is that of a man called Douglas.

He is in the position of having a contracted left lung, with crepitation all over it; bronchial breathing and bronchophony; but otherwise he is in tolerable good health. He, too, has the history of the third case.

The third case is that of a man who has been under observation for some time, but whose name I forget. But he has an irreducible fibrous pleurisy. He declares that he is perfectly well, and it is only by the greatest strategy and ingenuity that we are able to keep him in our wards. It astonishes him that we should be so anxious to have him remain with us. But we are very desirous that he should do so, in order that he may be utilized for purposes of our common instruction.

But the moment the hand is placed on the chest you feel a friction motion, and, over almost the entire chest, you can hear the to-and-fro friction sound. This is an example of the beginning of these cases. Tenny's difficulty began in this way. They come into the hospital with some pain in the side, with little or no effusion in pleural cavity; probably an effusion has been present at some time, and they get apparently well; but the to-and-fro friction sound remains in some cases.

In none of these cases have I been able to render any therapeutical service whatever.

In the last case it will be my endeavor to keep the patient in the hospital, so that I can trace the clinical history through its entire course.

I will just say, however, with reference to these illustrations, that, if you will cast your eye backward, I think you cannot fail to see, first, that there is sufficient ground for the pathological distinction; and, second, if I could reproduce in your minds, as clearly as I see them in my own, the clinical distinctions, I am sure you will accord with me that there is a clinical diagnosis in phthisis, and that it is just and proper that it should be recognized; for if they are different in origin, different in modes of development and progress, therefore necessarily different in treatment, and different in issue, it is but right, whether the destructive agent is distinct in structure or is homologous, that we should have a separate name to represent things which, at all events, are different in their apparent nature.

## LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

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### LECTURE IV.

*Tenotomy.*—When the foot cannot be restored by manipulation to its normal relation with the leg, or when the os calcis is elevated in a marked degree so that the foot cannot be flexed nearly to a right angle with the leg, tenotomy is absolutely necessary. It is not impossible even in such a case as this to accomplish a cure sometimes by mechanical appliances alone, but the length of time requisite to obtain a cure will often exhaust the patience and perseverance of both surgeon and patient, and the child is frequently abandoned to its fate. Experience has also satisfied me that relapse are much more common in severe cases when they are treated without tenotomy. It is a mere waste of time to attempt the cure of such cases by the employment of apparatus alone. For the reasons already



given tenotomy should be practised as early as the third month, if the child is in good health.

The treatment of talipes varus by operation consists in the subcutaneous division of the tendons of the contracted flexor and extensor muscles of the foot, which, by their contraction, resist the restoration of the foot to its normal position by mechanical and other means. The most powerful of these muscles—those which exert the greatest influence in opposing the reduction of the deformity—are the triceps surae, which, as we have shown, not only *extend* the foot at the ankle-joint, but also *adduct* it, and move it in the astragalo-calcaneum joint, and, in addition to this, powerfully resist the abduction of the foot and are sufficient to produce slight cases of club-foot.

The operative treatment, as practised by the English surgeons, Adams, Broadhurst, Little, and Tamplin, consists, in a majority of cases, in the division of the tendo Achillis and the tendons of the tibialis anticus, tibialis posticus, flexor longus digitorum, and in some cases the extensor longus hallucis and the plantar fascia. They divide the operative treatment into two stages: First, the varus is converted into equinus by cutting the tibial and long flexor tendons and gradually everting the foot by mechanical means; secondly, after the deformity is transformed into a simple equinus, the tendo Achillis is divided and the extension at the ankle joint is reduced. During a number of years I faithfully followed the rules established by the English surgeons, and the results were quite satisfactory to myself and to my patients; but it occasionally happened that I omitted to divide the posterior tibial tendon in very fleshy children on account of the danger of dividing the long flexor of the great toe, and of wounding the posterior tibial artery, which lies in close proximity to the tendon (the danger being much increased in fleshy children), and still obtained the same satisfactory results. This experience induced me to abandon gradually the English method of treatment, and for some years past I have limited the operative treatment, in a majority of cases, to the division of the tendo Achillis for the following reasons: 1. The section of six or eight tendons, which is often done by the English orthopedists, where both feet are deformed, is of itself a matter of no small consequence. 2. When the deformity is severe and the resistance offered to the reduction of the foot considerable, it requires a long time to abduct the foot and rotate it outward, whether the tendons of the tibial muscles have been divided or not, which is evidence that the deformity depends on another cause than the contraction of these muscles. 3. In most cases I find that no operative treatment is necessary except the division of the tendo Achillis.

You will observe, gentlemen, I do not claim that the operative treatment for varus can be limited in all cases to the division of the tendo Achillis. But I have no hesitation in saying that a majority of the cases in young subjects, even when severe, can be completely cured by limiting the operation to this tendon: the tibial tendons and the plantar fascia generally yield readily after this division. If, however, they resist

the reduction of the deformity after the section of the tendo Achillis and the use of appropriate mechanical appliances for four or six weeks, it may become necessary to divide them also. It is impossible to lay down any definite rule as to which tendon may require section in such cases; we must be governed in our action by the peculiarities of each case and divide any tendons that resist the reduction of the deformity.

The division of the *tendo Achillis*, as performed at the present day, is a perfectly safe and simple operation. The surgeon, having everything in readiness for the operation, places the patient on his abdomen with the foot hanging over the edge of the table, an assistant steadies the limb, while the surgeon grasps the foot with one hand, and forcibly flexes it so as to put the tendon on the stretch. He then, with a tenotome, punctures the skin close to the inner border of the

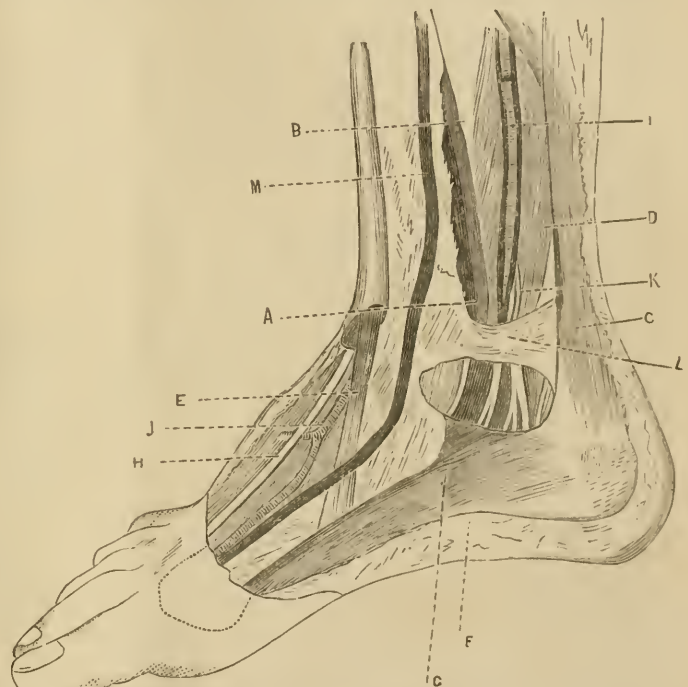


FIG. 14.—Relation of tendons divided in varus and equinus. (Erichsen.)

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|-------------------------------------------|------------------------------|
| A. Tibialis posticus. Point at which cut. | H. Extensor longus pollicis. |
| B. Flexor longus digitorum.               | I. Posterior tibial artery.  |
| C. Tendo Achillis. Point at which cut.    | J. Dorsalis pedis artery.    |
| D. Flexor longus pollicis.                | K. Posterior tibial nerve.   |
| E. Tibialis anticus. Point at which cut.  | L. Part of annular ligament. |
| F. Plantar fascia.                        | M. Saphena vein.             |
| G. Abductor pollicis.                     |                              |

tendon, from half an inch to an inch and a quarter, according to the age of the patient, above its insertion, and carries it obliquely downward (Adams) beneath the tendon to its opposite side. He then turns the edge of the knife toward the tendon, depresses the handle and divides the tendon with a clean, transverse cut; the knife is now withdrawn flatwise so as not to enlarge the external wound. I must caution you against putting the tendon too violently on the stretch, lest the knife be carried entirely through the integument and thus convert a subcutaneous wound into an open one, with its attendant consequences of suppuration, etc. I have said that the operation is a perfectly simple and safe one, but it should be remembered that the posterior tibial artery is placed at the inner edge of the tendon superiorly;

it becomes detached about the middle of the tendon and is entirely separated from it at the inferior portion. (Fig. 11.) The artery is accompanied in all its course by two large veins, and by the posterior tibial nerve. Now, we are warned by these facts, that if the tendon is divided too high up, the artery, the veins, or even the nerve may be wounded, and if, on the contrary, the section is made too low down, there will be danger of opening the synovial bursa, which is interposed between the tendon and the upper part of the tuberosity of the os calcis. You can understand now the importance of the direction to divide the tendon in adults fifteen lines above the os calcis, while the point of division in infants must be varied according to the child's age; but it ought never to be less than five or six lines from the heel. In infantile congenital cases the division of the tendon is indicated by a snap, and the divided ends separate so as to leave a gap at the seat of division. In adult cases, and in those of paralytic origin, there is no audible snap, and the divided ends of the tendon are separated to a very slight degree, owing to the rigidity of the ligaments of the joints and the paralyzed condition of the muscles. It sometimes happens that a few of the fibres of the tendon escape division, in which case the knife should be reintroduced and the section completed.

The *tendon of the tibialis anticus muscle* is usually so prominent under the skin as to make its division remarkably easy and free from danger, as it is not enclosed in a synovial sheath, and the *arteria dorsalis pedis*, besides being deeply seated, is placed on the external side of the *extensor proprius pollicis pedis*. It should be divided, as it passes over the ankle-joint, by entering the knife close to the tendon upon its outer side, so as to avoid the artery, carrying it beneath the tendon and dividing it from below upward towards the skin.

The *tendon of the tibialis posticus muscle* is in many cases divided with difficulty, and the operation is by no means free from danger on account of its proximity to the posterior tibial artery. Fortunately, its division is rarely necessary. I have adopted the following method: The child is laid upon its back and the leg and foot firmly held by an assistant; the latter is everted, so that the inner side looks directly upward. Now place the thumb of the left hand on the posterior edge of the tibia as a guide, and puncture the skin with a sharp-pointed tenotome, half an inch above the inner malleolus, and open the sheath of the tendon freely. The blunt-pointed tenotome, which should always be used in this operation, is then passed into the wound, and keeping its flat surface close to the bone, it is slipped between the bone and the tendon, the edge turned against the tendon which is divided, whilst the assistant forcibly abducts the foot. In the leg of a fat infant the inner edge of the malleolus and the posterior edge of the tibia cannot be distinctly defined; and for cases of this sort, which are by no means infrequent, we should adopt the plan of Dr. Little, viz.: taking the antero-posterior diameter of the leg, make the puncture exactly in the centre of this line. I must beg you to bear in mind that this tendon should never be divided unless the necessity for the operation is clearly demonstrated, because, in addition to the reasons already given, this and all other tendons that run through tubular sheaths often fail to unite after they have been divided. The *plantar fascia* is sometimes so contracted as to offer a serious impediment to the restoration of the foot, and requires to be divided in order to overcome the shortening of the foot, and to expand its longitudinal

arch. The operation is rarely necessary in infantile cases and in childhood, but is more frequently required in adults. It is usually sufficient to sever the inner division of the fascia, but we may also find it necessary to divide the central division. The operation consists in puncturing the skin close to the inner edge of the inner division, and then introducing a tenotome behind the fascia as close to it as possible, and dividing it towards the skin.

At what time is it desirable to begin to straighten the foot? Stromeyer has shown that remission of the tendons may be complete at the end of the fifth day, and that the tendinous exudation solidifies so rapidly that in ten days it may be impossible to reduce the deformity. I have adopted the rule to commence the mechanical treatment on the fourth day. The plan is to remove the plaster splint which was applied immediately after tenotomy, wash the foot well, apply another plaster splint, force the foot towards its normal position in the manner already described, and hold it until the plaster sets. This splint should be re-applied every third or fourth day, and each time when it is removed the foot should be washed and rubbed and the articulations loosened as much as possible by passive movements, in order to restore the freedom of the joints. The foot should be brought gradually to its normal position, and even into the position of varus, by increasing the extension somewhat each time the plaster dressing is applied. The deformity can usually be reduced in the course of two or three weeks without undue pressure upon any part of the foot, and without the slightest pain. It should now be put into the club-foot shoe (Fig. 12), which will hold the foot in the normal position without pain and inconvenience. The shoe must be removed night and morning, and the ankle and transverse tarsal joints manipulated for fifteen minutes by the mother, and the muscles, especially the peronei, should be well shampooed. This shoe should be replaced at night by the felt shoe. The object of gradual extension is to regulate the length of the new material which is formed, and to unite the divided extremities of the tendon. When the extension is excessive the new material may be elongated so as to make the reunion imperfect, or even prevent it from taking place altogether, and a previously healthy muscle may have its strength materially impaired, or it may even be rendered useless. Standing and walking on the foot will contribute essentially to remove the last traces of the deformity.

How long shall this treatment be continued? We answer, until the deformity is overcome and the natural movements of the joints are entirely restored. The time required to accomplish this will depend on the age of the patient and the kind and degree of rigidity which the case presents. After the division of the tendo Achillis, the chief resistance to reduction is offered by the ligaments; occasionally, however, the tibial muscles refuse to yield to mechanical treatment, and the division of one or both becomes necessary. In severe cases, in which the deformity has been considerable, and the resistance to reduction obstinate, it may be necessary to continue the treatment for eight or twelve months. For a longer period than this, even, the foot may exhibit a tendency to return to its abnormal position, and so long as this tendency exists, the treatment should be continued. Relapses frequently occur from a neglect of this important rule. When the deformity has been entirely removed, and free motion obtained in the joints, the child should wear, during the daytime, the boot which I now show you. (Fig. 15.) It differs from an ordinary leather



shoe in being open farther down in front, so that the foot can be introduced with greater ease; to this is added a steel plate fastened to the outer side of the heel, with a movable joint to correspond with the ankle, and connected above with a strap encircling the calf of the leg. This boot maintains the joints in their normal position during growth, and assists the muscles in acquiring symmetrical action.

The physiological treatment, consisting of frictions with dry, hot flannels, passive motion, electricity, etc., as I have previously described, should be rigorously pursued. It has an important influence in overcoming the deformity and in restoring the functions of the muscles and joints. The re-establishment of the functions of the foot is scarcely less important than the removal of the deformity. If the treatment is limited merely to overcoming the distortion of the foot by operative and mechanical means, very little benefit will have been conferred upon the patient. The gait will be awkward and inelastic from the want of normal movements in the articulations, and there will be great danger of a recurrence of the deformity.

Congenital varus is frequently accompanied by a bad condition of the ligaments of the knee-joint,

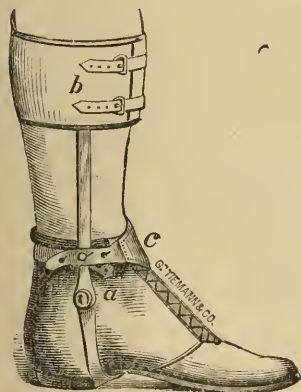


FIG. 15.

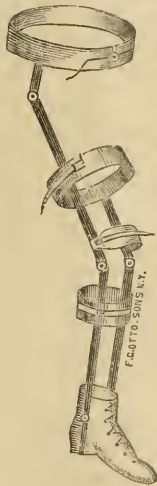


FIG. 16.

which allows the leg and foot to turn inward in the act of walking, even after the deformity has been cured, and free motion at the ankle-joint has been restored. In order to control this tendency to inversion of the foot, a retentive apparatus must be used which extends above the hip-joint and is connected with a pelvic belt. Such an appliance I here show you. (Fig. 16.) The pelvic belt is made oval so as to prevent its turning upon the body, and the perpendicular stem is thus kept in a line with the body, while the foot may be set to any degree of obliquity by the position of the shoe in the plate to which it is attached. The instrument should be worn as long as any tendency to inversion exists.

The treatment of talipes varus which I have recommended differs in some important respects from that pursued by the English orthopedists; but I assure you, gentlemen, I should not have presumed to differ with such high authorities, if I had not subjected the various plans of treatment to the test of actual experience in a considerable number of cases, both in public and private practice. Will you allow me, briefly, to recapitulate the mode of treatment which I employ?

1. A large number of cases of varus can be cured by mechanical means alone, if the foot can be brought by manipulation completely or nearly into its normal relations with the leg. Plaster-of-Paris splints, either without or with tenotomy, should be used, until the deformity is reduced, and then a club-foot shoe should be substituted for it, employed in the manner which I have advised. You need have no apprehensions of having a stiff and unwieldy foot after the cure of the deformity, a result much dreaded by orthopedists who have not used the gypsum splint or have not employed it in the manner I have recommended.

2. In a large majority of cases I limit tenotomy to the tendo Achillis. It is only in exceptional cases of varus that section of any other tendon is required.

3. The physiological treatment should be practised from the beginning and continued until the distortion has been overcome, the motions of the joints restored, and the functions of the muscles re-established. Remember that you have not cured the patient by reducing the deformity; the limb will be of little use unless the functions as well as its form are restored.

*Non-congenital talipes varus* generally arises from infantile paralysis, caused by the irritation of teething, or from a disturbance of the cerebro-spinal system of nerves occurring during the disorder of childhood; it is also sometimes caused by inflammation or injury of the joint. These cases are not usually seen until after the period of childhood, for although the cause which leads to the deformity generally begins in infancy, the distortion is developed very gradually and the surgeon is not consulted until the inconvenience in walking has become very decided. When all the muscles of the leg are paralyzed, the tendency of the weight of the body is to twist the foot inward during progression, and this tendency is more marked and rapid when the paralysis is limited to the abductor muscles (the peronei extensor longus and sometimes the extensor pollicis). The adductors, having no active opposing force, invert the foot during locomotion. It is important to *diagnose* the non-congenital form from the congenital form of varus, because the prognosis is much more favorable, as regards the usefulness of the limb, in the latter than in the former variety. In young subjects there is no difficulty in making a diagnosis, but when non-congenital cases are seen in the adult there is often great difficulty in deciding the question, because the characteristic features of the two forms become effaced when the foot has been used in walking for a long time. But the wasted and paralytic condition of the limb, the rounded and smooth external surface of the foot, observed in the non-congenital variety, is in such marked contrast with the definite irregularities and rigidity of the foot in the congenital variety, as to materially assist in the diagnosis even in adult cases.

The prognosis in non-congenital talipes is favorable so far as it relates to the simple removal of the deformity, but as regards the power and usefulness of the limb it is much less favorable than in the congenital form, except in those cases not caused by paralysis.

The treatment of non-congenital talipes is conducted on the same general principles that guide us in the management of the congenital form of the distortion. Tenotomy, however, is only necessary in exceptional cases. The mechanical and physiological treatment is generally sufficient to restore the foot to its normal position, and this is ordinarily accomplished in about one-third the time that is required for the congenital cases, owing to the weakened condition of the muscles and the want of rigidity in the ligamentous struc-

tures. It is necessary to conduct the mechanical treatment more cautiously than in the congenital deformity, in order to avoid sloughs from pressure, which are more likely to take place owing to the paralytic condition and the consequent diminished vitality of the limb. The same appliances may be used that we have advised for congenital talipes, viz., the plaster-of-Paris splint, or the felt splint, until the deformity is reduced; and then an appropriate club-foot shoe, which you must be sure fits the foot accurately and comfortably, may be worn. (Fig. 12.) The physiological treatment is even more important in this form of the disease than in the congenital, and should be thoroughly and persistently applied. When the deformity cannot be reduced by mechanical and physiological treatment, we must, in addition, divide the resisting structures in the manner already described.

After the deformity has been cured it will be necessary, in consequence of the paralytic condition of the limb, for the patient to wear a retentive apparatus for many years. The apparatus which I have shown you before will answer for most cases. (See Fig. 15.) If, however, the paralysis extends to the muscles above the knee, the support should be carried up to the hip-joint and connected with a steel belt around the waist. (See Fig. 16.) The foot should also be supported at night by a felt splint or some simple form of shoe (Fig. 15), in order to prevent a re-contraction of the ligaments and muscles and a consequent return of the deformity.

Before leaving this subject, I must not neglect to call your attention to the operation of excision of one or more of the tarsal bones, which is sometimes practised in old and bad cases of congenital varus in the adult.

The late Mr. Solly, of St. Thomas' Hospital, removed the cuboid in one case, and the operation has been repeated four times successfully by Mr. Davy, of the Westminster Hospital. The latter surgeon has also in three cases removed a wedge-shaped block of the tarsal arch, embracing the cuboid, the head of the astragalus, part of the scaphoid, the base of the little metatarsal and a chip of the external cuneiform bone (*British Medical Journal*, Dec. 15, 1877); and Mr. Davis-Colley, of Guy's Hospital, has performed a similar operation. The astragalus has been removed by Mr. Leard, of Manchester, and by Prof. Erskine Mason, of New York, for the same deformity, the latter gentleman not having been aware that the operation had been previously practised.

I have had no personal experience with these operations, but in confirmed and very aggravated cases the patient is, I think, entitled to the benefits they may confer.

**HOW TO KILL TAPE-WORMS.**—Insert a tube into the stomach through the œsophagus: pour through it 200 to 400 gmm. of a very highly concentrated decoction of pomegranate root, the patient having fasted for the previous twenty-four hours. In the short space of three-quarters of an hour to two hours, the tape-worm will be passed, head and all. The patient suffers no nausea.—*Dr. Karl Battelheim, of Vienna, in Deutsches Archiv.*

**BRYONIA AND DROSER A IN WHOOPING-COUGH.**—During the catarrhal stage, give the tinct. of bryonia (fss. daily to a child aged 7 years). During the spasmodic stage, give tincture of drosera (same dose for equal age). Under the action of the latter, the disease very rapidly subsides. So says M. Louvet Lamare in *L'Année Médicale*.

## Original Communications.

### ON RADICAL TREATMENT OF LOCAL DISEASE AT THE MENOPAUSE.

By G. E. SUSSDORFF, M.D.,

NEW YORK.

(A Paper read before the N. Y. Academy of Medicine Nov. 7, 1878.)

#### PART I.

THE study of the physiological and pathological aspects of the different epochs which occur in life is full of profound interest, and one of great practical instruction.

It is only after a careful investigation of the physiology of these periods that diseases incidental to them can be understood, and their tendencies, course, and terminations appreciated.

In the early part of life these epochs occur at seven, thirteen, and twenty-one; in the later part of life at forty-two, forty-nine, and sixty-three. These events take place alike in both sexes, but those which occur in the life of the male, and those which occur in the female at seven and sixty-three have no special bearing upon the subject of this paper, and therefore will be omitted.

The beginning of the establishment of menstruation and the age of puberty are of great importance, and bear with positiveness upon this subject, for by comparison with correspondingly critical events in the middle part of life, are of much instruction.

The study of the epoch of the change of life is of as great interest as that of puberty. It is, however, a field which has remained comparatively uncultivated, and has been allowed to continue covered to a great extent with the outgrowth of neglect, and surrounded by a high wall of prejudice.

The physiology and diseases of puberty, it is true, have begun to emerge within a few years from a past of obscurity and misconception, and the patient work of a host of observers is continually throwing additional light upon that era. Not so, however, with the menopause, for, but few are found who labor for its elucidation.

That the period of puberty is one of great importance is unquestioned. It is the period which establishes the great function of reproduction, determines in a great measure future health, and develops the mental, moral, and social qualities.

While this is true of puberty, it is no sound or fair argument to maintain, because the function of reproduction is about to be or has been ended, and the first years of usefulness passed, that the physiology and diseases of the latter part of life are no longer a matter of equal interest.

If it is the duty of the physician to watch and assist at the time of puberty, and after the establishment of the function of reproduction, it is no less his duty to pilot the patient through the perils which attend its decline and suspension, when she perhaps most needs his help and the considerate care of family or friends.

I cannot conceive that better reasons are necessary to make this period one of special study; but others are to be found in the fact of the great indifference existing in regard to the critical nature of this epoch, as demonstrated by the large number of women that annually die from diseases supervening during its progress.



The menopause includes a large field, but the limits of this paper will not admit of an observation of its entire area, and these considerations will therefore be confined as nearly as possible to such aspects as relate to local diseases.

In reviewing the literature of the menopause, one is surprised at the small number of treatises specially written upon the subject, at the cursory notice given to it in systematic works, and the little attention directed to it through the current periodicals of the day. This is remarkably the fact respecting American and English publications, most investigation having been made in Germany and France—indeed, the only work in the English language is at present that of Dr. Tilt, of London. Dr. Tilt remarks upon this point that, “perhaps the deficiencies of medical literature are corrected in the daily practice, though some eminent practitioners are of a different opinion. They do not pretend that nothing is done to relieve the sufferings of women, but not enough; that a placebo is given when systematic treatment is required.”

It is well known that in the early part of life, about the age of thirteen, certain developmental changes begin to take place in the system of the female, which, after a certain length of time, culminate in the establishment of menstruation, ovulation, and the reproductive function. During this process one or several of the organs comprising the generative cycle, exceed in influence other organs which compose and regulate the economy, so that the equilibrium which previously existed becomes more or less disturbed. This disturbance is evidenced in a variety of ways, but chiefly by nervous irritability, cephalalgia, and fitfulness of temper, and by painful sensations in the back, abdomen, and lower extremities.

This usually continues from one to two years, when a flow of blood perspired from the womb comes on, and recurs every twenty-eight days, as the rule.

While this is going on normally the body begins to develop, and attains full perfection. The mammae increase, the pelvis enlarges, and together the organs of reproduction become functionally mature. This function continues for about thirty-two years, the periodical flow returning regularly, unless interrupted by pregnancy, until near the forty-second year, when it becomes irregular, and after two or three years finally ceases.

After the establishment of menstruation and ovulation, the general health, under propitious circumstances, is much improved, and strength and physical beauty follow; but, if circumstances prove unfavorable, the reverse is the case, for, instead of strength and physical beauty, there is weakness and an undeveloped body; the nervous system becomes deranged, and pronounced disease of the spinal and ganglionic centres supervene.

Amenorrhea, dysmenorrhea, and hysteria, violent cephalalgia, obscuration of the mental faculties, perversions of the moral instinct come on, and frequently take firm hold upon the system.

The phenomena of the menopause present corresponding features to those of puberty. As at the establishment of ovulation, so also at the beginning of cessation, when the ovaries are undergoing a process of involution, and for two or three years after the flow ceases, the epoch is accompanied by infirmities and minor perversions of nervous sensation.

Under such circumstances, the final adjustment and co-ordination of the various organs of the system are happily attained, immunity from the perils and suffering incident to an active state of child-bearing is secured, and a new era of increased strength and pro-

nounced reinvigoration of the whole economy is obtained.

But this happy consummation does not always result, for, like puberty, the change of life may not follow a favorable course, for it is then that such seeds of disease and vices of constitution as have been held in abeyance by the stimulating influence of ovulation and the sexual organs upon the system, are developed, acquire activity, and often speedily become fatal.

The critical nature of this epoch has not always been recognized; indeed, some few have denied it altogether. This is especially true of Tissot, Soucrotte, Meissner, and Dewees, who have expressed such opinions, and Dr. Dewees in particular, who remarks, in his work upon diseases of women, that the idea some people have that this period is a dangerous one, is nothing but a vulgar error, and contemptuously dismisses the subject with a page or two.

Within a comparatively short time, however, other observers have directed attention to this epoch, and by their labors have done much to prove its great importance as a critical and dangerous event, and to show the mistakes and misconceptions existing in respect to it.

Among those who have thus contributed to our knowledge may be mentioned, Fothergill, Sir C. M. Clark, Meigs, Tilt, and G. Bedford. Its importance as a highly critical event has also been recognized by Lisfranc, Moreau de la Sarthe, Brierre de Boismont, and Dr. Dusourd, who have placed their testimony on record in no equivocal terms. That this period is at least of equal importance with that of puberty, as a crisis, can no longer be denied, since it has been proved, by accumulated experience, to determine, with perhaps more decision, complaints of the previous stage of life, or to develop new ones during its progress.

The number of deaths from diseases incident to the menopause may be but few in the experience of any single observer, but the aggregate is certainly great, and there are good grounds for believing this result to be of common occurrence. The following from Dr. Meigs expresses the same thought: “In America,” he says, “too little attention is paid to the dangers of the crisis (menopause); and when the threatening consequences of mismanagement or misapprehension have become startling, those fatal mutations are attributed to some trivial cause, and the victim passes away to the sound of the passing bell, and no increase of knowledge acquired by such a mournful experience stands in the way of the next victim to a management as unwise as thoughtless.” There is no question but that the prevailing feeling in the profession is that of uncertainty respecting the processes included in this epoch; it is regarded as a period critical, and perhaps dangerous, but not of sufficient consequence to demand active interference. By some it is believed that the vis medicatrix nature is all-sufficient and all-potent, and that the ills which occur must remedy themselves or else be accepted as incurable. It is a sort of *terra-incognita*, about which little is positively known, and about which much indifference exists.

“It is not unusual with women,” says Sir C. M. Clark, “to refer their extraordinary sensations to the change of life, and to consider that when they have thus accounted for their diseases they at the same time cured them; and in this most medical men, judging at least from their practice, seem to be of the same opinion.”

This indifference and consequent neglect of duty in the premises has been forcibly commented upon also by

Dr. Meigs as follows: "The complaints which women, at the change of life, often make, are frequently hushed by the unsatisfactory reply that such complaints are owing to the change of life and are likely to cease whenever the change shall become complete. A physician has no moral right by his opinion to put to sleep the anxieties of his patient, and to save himself the trouble of thinking by so concise and unphilosophical a mode of proceeding. Whenever, therefore, a female at this period, which is universally admitted to be a critical and dangerous time for her, comes to complain of symptoms referable to some morbid condition of the reproductive tissues, it is clearly our duty to give considerable attention to her case and not dismiss her until our judgment should be fully satisfied as to the therapeutical and hygienical indications of the case."

This state of general *indifference* to the dangers of the menopause is due to several causes, the most prominent of which are incorrect deductions from mortality statistics, and an extravagant confidence in its remedial and curative influence. In regard to mortality statistics, it has been argued by Benoiston de Chateaufort and Odier de Genève, that more men die between the ages of forty and fifty than women. This cannot be denied, for the statement made from French statistics has been confirmed by the statistics of other countries: still the deduction made is wholly incorrect, as it has been shown with equal truth that more males than females die at all ages, and that this is not specially the case between the fortieth and fiftieth years; indeed I believe that a careful analysis of statistics of mortality among women, at different ages, will show that, after deducting puerperal and accidental causes in the earlier years, the percentage of deaths between forty and fifty is greatest.

It is a familiar saying that there are no errors or false impressions so hard to correct or eradicate as those that have for a basis a small amount of truth, and the axiom applies with force to the arguments of the above-mentioned writers, as well as to the other cause of indifference, viz. that of extravagant confidence in the curative influence of this epoch.

Instructive as it may be to point out in detail how much of truth there is as a basis for that impression, the limits of this paper will not admit of more than a consideration of a few points in that direction, upon which are founded certain suggestions, as to the treatment of local diseases during the menopause. There is no doubt but that a certain class of pre-existing diseases of the reproductive organs are more or less benefited and frequently cured at that time, but the number is very much less than has been believed, judging at least from statements made in generally accepted systematic works upon diseases of women.

The diseases which have been commonly supposed to be thus influenced may be enumerated as follows: Subacute and chronic ovaritis, ovarian congestion and hypertrophy, ovarian, uterine, and mammary tumors, pelvic peritonitis and cellulitis, areolar hyperplasia, uterine displacements, subinvolution, procidentia, inversion, cervical and corporeal endometritis, polypi, fungous degenerations, ulceration and eversion of the cervix, and vaginal prolapsus. Truly a comprehensive list. Diseases of other organs are likewise supposed to be cured at this time, but their consideration cannot now be undertaken. It may be mentioned *en passant*, however, that of this class insanity, epilepsy, and puerperal mania are most deserving of such confidence.

In the varieties of local disease embraced in the foregoing list, there seems convincing evidence of the

benign influence of the menopause, if it be accepted without question; but, if this were done, it would soon become apparent that there are many exceptions in almost every case, and some upon which the influence is positively harmful. The percentage of exceptions cannot be approximated in figures, but an idea at least of their probable frequency may be formed from the statement of Dr. Saussier de Troyes, who declares that he found eleven women from forty to fifty, out of one hundred and two deviations, suffering from this disease. Of course, this exhibit must be accepted for what it is worth, but that there is some truth in it I am convinced from my own observation.

Perhaps a more correct idea may be gained of the influences operating unfavorably upon local diseases, by a consideration of the morbid conditions of the system, which then generally supervene to a greater or less degree.

These general pathological conditions are characteristic, and have been termed "morbid exaggerations of the natural phenomena of the epoch." A minor degree of disturbance of the various functions of the body is usually present, even in such cases as pursue a progressively physiological course; but this may become greatly exaggerated, and so excessive as to constitute grave disease and end in death. The different phases of this disturbance may be classified into diseases of the ganglionic nervous system, diseases of the cerebro-spinal system, and diseases of the gastrointestinal system.

Those who have seen and studied specially diseases of the ganglionic and cerebro-spinal systems, it is not necessary to refer to statistics to prove their frequency in an exaggerated form at this particular period; indeed, they constitute the most prominent of the constitutional phenomena. Of such manifestations are hysteria, leipothymia, intense and prolonged debility, chlorosis, plethora, nervous irritability, insanity, epilepsy, intense cephalalgia, and perversions of the moral instincts, not the least of which are suicidal and homicidal mania. Other manifestations, as long-continued nausea and vomiting, diarrhea, biliousness, dyspepsia, and hemorrhoids, and certain derangements of the functions of the heart, lungs, and kidneys, are also very frequent.

At all times of life these diseases are evidences of a lowered state of vitality, and when they occur during the menopause this is specially the case, and when they become pronounced, and occasion great constitutional disturbance, it is, to a certain extent, due to inherited predisposition, or acquired dyscrasias, but *chiefly* to the reacting influence of diseases of the reproductive tissues. This I conceive to be a correct view of the general influences supervening at the menopause.

The *local* diseases which are harmfully influenced under such circumstances are uterine and mammary cancer, ovarian, mammary, and uterine tumors, uterine polypi, fungous degeneration of the tissues of the womb, and different varieties of disease of the cervix. Other diseases might with propriety be added to those just mentioned, but these will be sufficient, I take it, for the purpose here in view.

*Cancer* has been proved to be particularly fatal at the menopause. The following comparative statement as published will show this to be true. "The cancerous age" in England has been demonstrated to be from forty to fifty, in the Registrar-General's report, as between women and men, as follows:

From 30 to 40, as 19 women to 6 men.

" 40 to 50, as 51 " to 6 "

" 50 to 60, as 5 " to 1 man.



Cases collected by Scanzoni, Kiwisch, Leibert, and West, show about the same results. Indeed, it may be said that, no matter where situated, cancer is most frequently fatal between forty and fifty.

*Ovarian tumors* may originate at this period, but generally do so some years earlier, when the ovaries are functionally active. A table by Leibert shows that in 59 cases this disease originated 12 times between 30 and 40, and 13 times between 40 and 50. It also appears from the Registrar-General's report, that out of 44 cases occurring in the city of London in 1848, 17 deaths took place between the fortieth and fiftieth years, and that in 1,205 deaths since that time from ovarian disease, 363 took place between these years.

From this it will be seen that in a certain proportion of cases the disease may then first originate, and in others may then terminate fatally.

*Uterine tumors* are generally supposed to be favorably influenced or remain harmless at this time, but it is not unusual, to the contrary, for them to take on increased activity, and become fatal.

*Fibroid tumors* are of very common occurrence at all ages up to the sixtieth year, but they most frequently give trouble between the fortieth and fiftieth years.

The influence of age in exciting active growth in these tumors may be estimated from the succeeding figures tabulated from 133 cases collected by Chiari and West, to which Schroeder has added 36 of his own, in reference to the time they applied for treatment:

| Ages .....  | 20 to 29 | 30 to 40 | 40 to 50 | 50 to 60 | 60 to 70 | 70 to 80 |
|-------------|----------|----------|----------|----------|----------|----------|
| Cases ..... | 33       | 54       | 62       | 19       | 0        | 1        |

There is no question but that many women who have fibrous tumors of the uterus pass through this period without inconvenience, and are not troubled with them in after-life, still it is equally true that they are not unfrequently a cause of suffering and death, for this has also been shown by Chiari, Malgaigne, Brun, Paget, and West.

*Mammary tumors* also often take on activity and become malignant at this time. Unilocular cysts have been found by Mr. Erichsen most frequent from forty-five to fifty, and Velpeau has shown hypertrophy, cysts, nodosities, and adenoid enlargements in these parts most common at these years.

Dupuytren's experience, tabulated from fifty-seven cases of uterine polypi, shows that while this disease is frequent from thirty to forty, it is more so between forty and forty-nine. Fungous degeneration of the mucous membrane of the uterus is frequent at this period, and is unfavorably influenced by it.

Certain diseased conditions of the cervix—such as erosions, ulcerations, hypertrophy, and eversion—often take on renewed activity, and give much trouble. Hard hypertrophy is often met with at this period, and I have often found that condition present in patients I have examined, and have no doubt but it often is the exciting cause of certain ganglionic manifestations, one of which is long-continued nausea and vomiting. With regard to eversion, I cannot speak positively as yet, but in some cases I have recently observed there was a suspicious degree of hardness, which, together with certain other general symptoms, excited fears of malignancy.

The question as to whether the menopause ever gives origin to cancer, or whether it only gives fatal

activity to such disease previously undetected, is still unsettled, but it does not appear unlikely that it often is then first originated, because, as stated by Dr. Tilt, if the average duration of cancer is *sixteen months*, and the average duration of the first part of the menopause is *three years*, the relation between the two as to cause and effect must be something *more* than a mere matter of chance. It is quite likely, however, that many cases reported as cancer have been malignant disease, without being specifically cancerous, for the tendency of this epoch to develop malignant characters in diseases previously benign has not, it seems to me, received the attention it deserves.

The word malignant is here used to mean such conditions of disease as are destructive of life. Perhaps this will be better understood from the definition of Dr. M. H. Collis, who says: "If a tumor is destructive of life or tissue, it is malignant; if not, it is innocent or benign. Many cancers are not malignant. Many non-cancerous growths are eminently destructive of life."

Attention has been called to the influence of inherited constitutional vices and acquired dyscrasias in developing malignant diseases in innocent growths, and Prof. Esmarch has recently detailed several instances illustrative of the development of cancer from benignant growths, and is convinced that a predisposition to malignant new growths is given in hereditary scrofulous and syphilitic dyscrasias.

Certain diseases of the reproductive organs, usually innocent or benign, may therefore assume malignant characters—not only from vices of constitution, but from a *lowered state of vitality* in the system, due to "morbid exaggerations of the natural phenomena of the epoch."

These diseases may destroy life in various ways—by rapidly increasing in volume, by encroachment upon vital organs, by degeneration of immediate and adjacent structure, by exciting inflammation, by causing exhausting discharges, prolonged or excessive hemorrhage, and by inducing septic poisoning of the blood.

These are frequent causes of death at the menopause, and may be justly termed malignant.

Ovarian tumors have been shown to be frequently fatal at this period, having become malignant from encroachment and exhaustion.

Uterine tumors not unfrequently become fatal also—not, as has been contended by some, because they become cancerous, but by reason of rapid growth, degeneration of tissue, and exhausting hemorrhages. Uterine polypi and fungous degenerations are sometimes fatal, are always a fertile source of mischief, and greatly complicate the progress of the epoch.

Mammary tumors are especially liable to take on malignant characters, and become fatal in the same general way.

The tendency therefore of the menopause is manifestly to a state of exhaustion, and it certainly seems contrary to good judgment and medical intelligence to maintain, that the system while in a state of weakness, nervous depression, and lowered vitality generally, is in a condition best calculated by its unaided powers to throw off pre-existing diseases, or withstand the attacks and inroads of new ones. Nor, indeed, should it be a matter of surprise to find the reproductive organs so often the seat of malignant disease, when it is remembered how usual it is for them to be burdened with structural diseases and adventitious growths, which have remained unrecognized perhaps for years.

(To be continued.)

## HYPODERMICS OF COFFEE FOR MORPHIA VOMITINGS AND OPIUM POISONING.

By MONTROSE A. Pallen, M.D.,

NEW YORK.

CASE I.—Mrs. B., *ætat.* 34, has been under treatment for three months for chronic pelvic cellulitis. The entire left half of the periuterine spaces, as well as the Douglas cul-de-sac, are matted together, rendering the uterus, left broad ligament, and rectum, fixed and immovable. Her menstrual molimen has been ushered in for some eight months with excruciating pains, lasting from three to four days, subsiding into a dull hypogastric and pelvic ache during the menstrual flow. Nothing has relieved these pains save the complete influence of morphia; but as soon as the drug begins to subdue the pain, vomitings ensue, persisting as long as any morphia remains in the system. So painful and so prostrating are these attacks, that the patient has lately made strenuous efforts to do away with the medicine, and consents to its use only when her agonies are unbearable. On the sixteenth of November last, I insisted upon giving a hypodermic of one-fourth grain of morphia sulphate, combined with one-fiftieth grain of atropia sulphate, hoping the latter drug might, in a measure, mitigate (as I have frequently found it so to do) the nausea and vomiting. It was of no avail, as in less than twenty minutes the usual miserable and distressing attacks came on. The continuous and faradic currents were alternately tried for more than an hour. It was folly to attempt stimulation, as the smallest pieces of ice were instantaneously rejected from the stomach. The patient was seriously prostrated, and I felt somewhat anxious about the result, as she was extremely weak and debilitated. After a period of four hours I bethought me of a preparation of the *fluid extract of Java coffee*, which had been sent me by John Wyeth & Bro., of Philadelphia. Of this coffee extract I gave a *warm* hypodermic of twenty minims in the epigastrium, and in about fifteen minutes the patient expressed herself as feeling decidedly better, having vomited but once during that time. I then gave an additional hypodermic of fifteen minims (warm) in the abdominal parietes. She was free from the nausea in less than an hour, and never vomited after the second injection of coffee.

CASE II.—I. I., a confirmed secret morphine eater, was found in his bed on the morning of December 1st, profoundly affected. His pupils were very much contracted, conjunctivæ injected, pulse 42 per minute, respirations feeble, 8 to the minute, and was aroused with great difficulty, after being well slapped on the cheeks and drenched with cold water. An empty drachm-bottle, marked "Morphiæ Sulph.," was found on the floor. I injected *thirty minims* of coffee in the epigastrium at once, and ordered him to be walked about by two stout hotel-porters. In fifteen minutes I administered *thirty minims* more in the right arm, over the deltoid. I watched him for about half an hour more, when I observed the pupils to be dilated, and the pulse had gone up to 64, and the respirations were about 14 per minute. In two hours more he showed no farther symptoms of morphine whatever.

In the first case there were no ill effects from the hypodermics; but in the second one, a very considerable abscess ensued in the shoulder, and some inflammatory indurations in the epigastrium. A very

pertinent question arises, if the hypodermics of cold coffee-extract were prejudicial to the sub-integumentary connective tissue, or did the quantity (thirty minims) produce abscess. Where the fluid was used *warm*, about the temperature of the body, no trouble manifested itself. For quite a number of years I have been in the habit of warming all hypodermics, and I have never seen abscess follow; whereas (from hurry or impossibility to warm the fluid), I have not infrequently seen cold hypodermics produce irritation, inflammation, or abscess.

Another very interesting question arises as to the antidotal influence of coffee. I ordered the fluid extract of coffee from Wyeth & Bro. to use as an eliminator of the urates in gout. It certainly possesses valuable properties, in the treatment of chronic gout, as a renal depurant. Can it act thus to remove the poison of opium and the tissue detritus caused therefrom? I leave the solution of this question to our physiological chemists.

9 WEST TWENTY-NINTH STREET, Dec. 10th.

## Reports of Hospitals.

### ST. THOMAS'S HOSPITAL, LONDON.

#### LATENT SCARLATINA.

(Reported by C. CLIFFORD MERCER, M.D.)

Dr. MURCHISON believes that there is nothing more easy than to diagnosticate a typical case of scarlatina. It has four special symptoms, viz.: 1, sudden onset of pyrexia, the temperature frequently going up within twenty-four hours to 104 F.; 2, a sore throat with swelling of the glands of the neck; 3, clearing off of a coated tongue at the end of about three days, leaving the surface clean and the papillæ enlarged and strawberry-like; 4, a peculiar punctated rash appearing thirty-six and sometimes as early as twenty-four hours after the onset of the fever. The rash is an erythematous flush disappearing on pressure. In the flush are to be seen, upon looking closely, little spots which are darker and slightly raised.

On the other hand, there is probably no error in diagnosis more common than that of failing to recognize latent scarlatina. There are undoubtedly cases of scarlatina in which none of the above symptoms occur, or, if they occur, they are too slight to be noticed. These cases are not brought to the physician. The cases of latent scarlatina most often seen by the physician are those which complain only of sore throat. The importance of recognizing these latent cases is great, because the patient may soon be in danger from the sequela of Bright's disease of the kidney; and, if proper precautions are not taken, other members of the family, playmates, or school-fellows will be exposed.

As the period of incubation is sometimes as short as twenty-four hours, it is quite necessary to thoroughly investigate every seemingly simple sore throat. Inquire for vomiting—which, bear in mind, may also occur in diphtheria, but is not met with in simple quinsy. See if the glands of the neck are enlarged, not being deceived by enlargements of long standing or the smaller enlargements of quinsy. Examine the throat, which, in scarlatina, presents a redness differing from that of any other sore throat, but a difference only to be



recognized by an experienced physician who has examined many throats suffering in various ways. Examine the tongue; if only a few papillae on the tip are enlarged, it is a significant fact. Look for great drowsiness during the first twenty-four hours, not mistaking it for the stupor which is sometimes seen later on in quinsy, when both tonsils are enormously swollen and perhaps suppurating. The odor of the breath is almost or quite pathognomonic to the physician of sufficient experience. Albuminuria is sometimes present as early as the second or third day; therefore urinary tests are to begin as soon as the patient is seen. After the subsidence of the sore throat, some desquamation may take place, or transverse lines appear on the nails. Ask carefully about any chances of exposure, not forgetting that parents often have a wish to cover up a suspected exposure, because they do not like the idea of the child having scarlet fever, and think the doctor ought to be able to tell, without their help, whether the child really has or has not the dreaded disease. This is all wrong; the fact of exposure is of the greatest importance. If the child has not been exposed to typical scarlatina, find out if it has been with children having a similar sore throat. Only in the absence of all the above diagnostic points can a case of slight sore throat be considered simple quinsy. Further, in a case of simple quinsy—there may have been previous attacks—as a rule, one tonsil is first affected, and, as it recovers, the other is affected, and the glands frequently suppurate: three facts not true in scarlatina.

The case which called forth these remarks was a little girl recently admitted to the hospital. She had a sore throat, a temperature of 104° F., and enlarged glands in the neck. In private practice, a suspected case can be isolated, whatever be its true nature. But in the hospital it is another matter; it is necessary to make a correct diagnosis: for if the child has scarlatina and is put in a common ward, all the children in the ward are exposed; while, if it has not scarlatina, and is put into the scarlatina ward, the child is wrongfully exposed. When it was ascertained that the girl's sister had been admitted to the hospital with a similar sore throat, the diagnosis was confirmed. The diagnosis was still more certain when it was learned that another child, living in the street in which the sisters lived, and who had played with them, had presented herself with a similar sore throat. The child was put into the scarlatina ward. On the third day after admission her urine was smoky, contained albumen, blood-corpuscles, and epithelial casts. [Subsequently, after delivery of the lecture, the sister, in about third week of her illness, got copious albuminuria.]

so small, that it was quite impossible to introduce the hand, and it was evident that delivery *per vias naturales* would be impossible without evisceration, and that even then it would be attended with almost insurmountable difficulty and risk. The Caesarean operation was therefore determined upon, and performed after she had been in labor about thirty-three hours. An incision eight inches in length was made in the median line, four inches above and four inches below the umbilicus. The abdominal walls and uterus were no thicker than cartridge-paper, and the placenta, extending about an inch across the median line, was cut through before being recognized. The child was speedily removed, and, after the uterus began to contract firmly, the placenta came away without any very serious hemorrhage. No sutures were put into the uterus, but the external wound was closed by eight deep sutures of iron wire, adhesive strips, and bandages. These sutures were cut out and the wound granulated, but the patient did well in spite of an attack of phlegmatia dolens in the left leg. On the thirty-second day after the operation the menses were flowing freely, both from wound and vagina. After this she continued to improve, and on the anniversary of the operation she continued well. Her courses are regular every month, and she notices a few drops of colored discharge from the abdominal cicatrix at each period. The child is alive, and is very large for his age; the father was a large man.—*The Lancet*, July 6, 1878.

**CONGENITAL PHIMOSIS AS A CAUSE OF RUPTURE.**—Straining from difficulty of micturition has been mentioned by most authors as a cause of rupture in the adult, but none have made any allusion to congenital phimosis as a cause of infantile hernia, with the exception of Mr. Owen, who says that in such cases it would be well to look to the size of the urethral and preputial orifices. Noticing the great frequency with which infantile hernia occurred with this congenital condition, Mr. Kempe, of the Children's Hospital, London, analyzed fifty consecutive cases (not selected ones) of phimosis, and found thirty-one complicated by inguinal hernia; in many there was also umbilical hernia, but where this form *alone* existed it was not counted. In none of these cases was the rupture noticed at birth; the earliest appeared three weeks and the latest two and a half years after. Circumcision was performed in all these cases; in five the hernia never reappeared, and all have been greatly benefited. The abdominal parietes being naturally weak in children, it is easy to imagine the straining to overcome the obstruction to micturition offered by phimosis, and the crying consequent upon the pain caused by the straining, as exciting causes of rupture.—*The Lancet*, July 27, 1878.

**ON MURMURS IN THE PERIPHERAL ARTERIES.**—Prof. Senator reports two cases in which murmurs were heard over peripheral arteries, although there was no aortic insufficiency in either case. The first was one of splenic anemia (pseudo-anemia); a distinct murmur, coincident with the dilatation of the artery, was heard over femoral, brachial, and radial arteries, and in the palm of the hand, while a distinct capillary pulse was visible in the finger-nails. The murmur was heard even when every precaution was taken to avoid pressure with the stethoscope. The retinal arteries presented distinct pulsation if slight pressure were made on the eyeball, but not otherwise. In the second case—one of extreme anemia, due to repeated intestinal hemorrhages, probably dependent on hemophilia—a murmur was heard in all the accessible peri-

## Progress of Medical Science.

**CÆSAREAN SECTION IN A DWARF.**—An interesting case of Caesarean section is reported by Mr. Wrench, of Baslow, Derbyshire. The mother, though twenty-eight years of age, was not larger than many girls of ten, but was free from deformity. The child was lying with its long axis at right angles to its mother's spine; the vicinity of the chest and pelvis having necessitated the expansion of the uterus directly forward, so that it was lying almost entirely anterior to a line drawn from the ensiform cartilage to the pubes, and projected in a most unusual cone, of which the umbilicus was the summit. The pelvis was

pheral arteries, and a capillary pulse was visible, but the retinal arteries did not pulsate.

Prof. Senator agrees with other writers in ascribing the murmurs to the vibrations of the arterial walls, their intensity as well as their existence depending on the extent and rapidity of these vibrations. He mentions the possibility of mistaking the murmur produced by the vibrations of the air in the interior of the hollow stethoscopes that are in common use for a faint arterial murmur, but states that this possibility of error can be eliminated by the use of Niemeyer's solid stethoscope. The conditions which favor the development of arterial murmurs are the same as those which augment the force of the apex beat of the heart, viz., increase in the power of the contraction of the cardiac muscle and diminished tension of the arterial walls. When the heart contracts more powerfully, all other things being equal, not only is the apex beat stronger, but the pulsatory distention of the arterial walls is greater; and the same is true of both when the obstacles to the column of blood passing from the heart and into the arteries are diminished, as is the case when the arterial tension is abnormally slight. The most favorable conditions for the development of the arterial murmurs are of course given when both these factors act together. Hence it is easy to determine the pathological conditions in which the arterial murmurs are to be looked for. They are, first of all, aortic insufficiency with dilatation and hypertrophy of the left ventricle; next, cases of pure insufficiency of the mitral valve, in which the left as well as the right ventricle is hypertrophied, because the former then discharges its contents in two directions, hence meets with abnormally slight opposition, the tension of the arteries being on that very account diminished; then, perhaps, pure cases of persisting potency of the ductus Botalli; finally, other conditions in which the arterial system is relaxed, while the heart acts powerfully, such as anemia, chlorosis, fever, and perhaps also, stenosis of the aortic or mitral valve, with marked hypertrophy of the left side of the heart.—*Berl. klin. Wochen.*, 1878, No. 21.

**AMYLOID DEGENERATION OF THE KIDNEYS.**—Despite the numerous and great variations in the quantity and chemical constitution of the urine in cases of amyloid degeneration of the kidneys, some degree of albuminuria has been universally regarded as a constant and characteristic symptom of that affection. With regard, however, to the modus of the excretion of albumen by the degenerated kidneys, opinions have differed greatly; some holding that the walls of the diseased vessels are abnormally permeable to albumen; others that it escapes from the healthy vessels in consequence of the increased blood-pressure due to the collateral hyperæmia; and still others that it is the coincident chronic parenchymatous nephritis, and not the amyloid change of the vessels, which leads to the albuminuria. Some light is thrown on this question by four cases recently reported by Dr. Litten, of Berlin, which at the same time demonstrate the incorrectness of the opinion that albuminuria is an invariable symptom of amyloid renal disease. In all four cases the diagnosis of amyloid disease of some of the abdominal organs was made *intra vitam*; and in all, consequently, the urine was carefully examined every day for evidence of implication of the kidneys. The result, however, was invariably negative, neither albuminuria nor casts being found on any occasion. One case was under observation three months; two, thirteen and fourteen days respectively; while in the fourth the length of time during which the urine was exam-

ined for albumen is not definitely stated. In all four cases the autopsy revealed unmistakable signs of more or less advanced waxy disease of the kidneys. The parts affected were the glomeruli and the small vessels of the cortex and medulla. In the first case the condition observed was a peculiar one: all the glomeruli affected were completely and totally diseased, there being no intermediate steps between the perfectly healthy and the totally degenerated glomeruli. The latter, moreover, were entirely impermeable to the injection fluid with which one kidney was injected, while the former were beautifully injected. In the other three cases the affected glomeruli were not totally degenerated, only a varying number of tufts in each having undergone change. One noticeable feature in all of the four cases was the complete absence of all signs of the inflammatory affection which almost constantly accompanies waxy degeneration. The only parenchymatous change consisted in a slight and unimportant fatty alteration of the epithelium in a few of the tubes.

Dr. Litten submits that these cases furnish strong ground for questioning the widely accepted opinion that amyloid degeneration of the walls of blood-vessels renders them abnormally permeable to the serum-albumen of the blood. On the other hand, they lend a certain air of probability to the theory that the albuminuria in amyloid disease of the kidneys is due to the parenchymatous inflammation of the organ, and not to the waxy degeneration of its vessels. The fatty condition of the epithelium, noticed in three of the cases, seems to be of no importance in connection with the question of the excretion of albumen, as is evident from the fact that it is a normal condition in cats and dogs, and occurs also in cases of phosphorus poisoning.—*Berliner klin. Wochen.*, No. 22, 1878.

**DOES PILOCARPINE POSSESS THE POWER TO EXCITE UTERINE PAINS.**—As a contribution to the material from which this question must be decided, Dr. Wel-pow, of Vienna, reports the following case: A primipara, with a slightly deformed pelvis, was delivered with forceps after a severe labor, in October, 1876. The child did not breathe for a long time, and died on the following day of atelectasis. On May 16, 1878, she being then, as nearly as could be determined, about the middle of the ninth month of her second pregnancy, it was decided to bring on premature labor, and, at the same time, as the case was in all respects an appropriate one, to make a trial of the alleged ecboic powers of pilocarpine. Accordingly, in the course of eight days, seven hypodermic injections of a two per cent. solution of the muriate of pilocarpine were administered; but, although the characteristic physiological effects of the drug appeared after each injection, the cervix uteri remained unaffected. The two last injections caused repeated and exhausting vomiting, which necessitated the discontinuance of the experiment. Labor was then brought on by puncture of the membranes, and a dead child was extracted with the forceps. The puerperal period passed off without any unusual symptoms.—*Centralblatt für Gynäkologie*, July 20th.

#### FORMULA FOR PARESI'S HEMOSTATIC COLLODION.—

|                            |             |
|----------------------------|-------------|
| Official collodion .....   | 100.00 gmm. |
| Carbolic acid (pure) ..... | 10.00 "     |
| Tannic acid .....          | 5.00 "      |
| Benzoic acid.....          | 3.00 "      |

M. second. art.

—*L'Union Médicale*.



# THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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## SANITARY REFORM IN OUR PUBLIC SCHOOLS.

THE recent articles on school hygiene in the *New York Herald* are calculated to do much good in calling the attention of the public to this important subject. Notwithstanding all that has been said concerning the necessity for reform and the means which have been tried to bring about such a result, the schools are, from a sanitary point of view, very little if any improved. Strange to say, where the most substantial aid should have been expected in efforts to benefit the school children, the strongest opposition has been encountered. The Board of Education has, directly and indirectly, thrown every obstacle in the way of placing the schools on a better sanitary footing, and, in fact, appears to be actuated by a zeal in the matter which cannot, on general principles, be explained. It not only refuses to do anything itself, but positively hinders the efforts of every one else. And yet this is the kind of government to which the sanitary welfare of one hundred thousand school children is entrusted.

So much has been said on the necessity of improving the sanitary condition of the schools, and of earning for the hygienic interests of the school children, that it appears almost like useless reiteration to refer to the subject again. But we are more and more impressed with the fact that continual agitation of the question is beginning to bear fruit. The Medico-Legal Society of this city has investigated the subject on its own account, and, as a result, has taken a decided stand in favor of a radical change in the present school management. Through its instrumentality valuable suggestions have been offered, urgent appeals have been made for medical representation on the school board, and, lastly, laws have been framed to meet the emergencies of the hour.

The subject has been discussed in the Legislature, the daily press has used its powerful influence in the right direction, devoting column after column to the

exposure of the unsanitary condition of the school-houses; in fact, the tide of opinion outside of the educational board seems to be only in one direction. All that appears to be necessary is to change the opinion of the board in question—a change which does not seem to be possible unless the board itself is replaced. This is, of course, not to be expected under its present political management. What may be done by the new mayor remains to be seen.

It will be recollected that during the last Legislature a bill was passed limiting the minimum age of attendance of school children to five years. This appeared well enough upon its face, but the *Herald* very significantly asks whose business it is to see that the law is enforced. The Board of Education has certainly not acted in the matter, as the majority of the teachers have not even been informed of the existence of such a law. The consequence is that children under the specified age are admitted almost without question, and certainly without any active interference. The class-rooms are as crowded as ever, contagious diseases are freely propagated, inspections of the proper officials are so few and far between as to amount to nothing, and the Principals draw their salaries in proportion to the average attendance of pupils. When we consider, in the face of these facts, that the Board of Education is the opposing influence to the reforms which are necessary, is there not occasion for congratulation that the *Herald* has turned the influence of its powerful advocacy in the right direction, and is leading public opinion in the direction of demanding what it has heretofore merely solicited. The Board of Education says that the sanitary condition of the schools is perfect. But what a terrible responsibility it assumes in so doing is best realized by those who are practically acquainted with the state of affairs, more especially in the primary departments of the schools in question.

## A NEW PHASE OF THE HOMŒOPATHIC QUESTION.

At the recent annual meeting of the Homœopathic Medical Society of the County of New York, there was a fresh struggle between the liberals and exclusives. The occasion was a proposed amendment to the constitution of their Society. The change sought was the removal of the clause which virtually binds its members to an exclusively homœopathic practice, and declares to the world that such is the practice of its members. It being generally admitted, however, that the great majority do not confine themselves thus strictly, an effort was made by some of the more intelligent and we may say honest members, to, by public declaration, place the matter in its true light before the profession and the public. This effort was defeated. The present position of affairs, therefore, seems to be that the Society in question contains two sorts of members: those who desire emancipation from the thralldom of dogma, and the acknowledged right to

practise as their judgments dictate; and second, those who practically do the same, but are not willing that the public should know it. The position of these gentlemen is too obvious to require lengthy comment. It is simply an example of the apparent dishonesty and fraud which we have, perhaps, too universally charged against homœopaths in general. There is, indeed, a third class, very small in numbers, who apparently do believe that pure homœopathy is all-sufficient in the treatment of disease, and who consistently confine themselves to it in practice; who would perhaps permit a patient to bleed to death while taking infinitesimal doses of phosphorus, rather than apply styptics or other direct means for checking the hemorrhage. These gentlemen, joined to their idols, we must relegate to the care of the psychologist.

The position, however, of the so-called liberal homœopaths—those who believe that many drugs can be usefully applied according to homœopathic principles as formulated in the proposition "*Similia*," etc., but who do not regard this principle as always available—in the present aspect of affairs, must be somewhat embarrassing. If they remain members of their County Society, they are virtually *participantes criminis* of false pretences. If they resign, they in a measure lose the political (medical) rights which they now enjoy, and with no assurance that they can acquire new ones. The question, then, seems to become one of principle *vs.* expediency. Which will probably yield the most satisfactory results in the end we leave them to determine. Foreseeing the inevitable, however, they have prepared a refuge by the organization, we are informed, of a non-partisan incorporated association called the "New York Medico-Chirurgical Society," from the constitution of which all reference to dogma or belief or special methods of practice has been omitted. Here they can consistently live up to their declarations, that they are, and desire to be called, simply physicians, and devote themselves to the cultivation of all branches of medical science.

#### CHARACTERISTICS OF THE YELLOW FEVER IN THE LATE EPIDEMIC.

THE results of the study of the yellow fever cases in the recent epidemic are beginning to come in, and they give us many facts of interest. Every epidemic has, of course, some clinical features of its own, and those of the last one have been carefully observed. A very excellent account of the seventy cases admitted to the Yellow-Fever Hospital at Louisville, Ky., has been given by Dr. Marvin, House-Physician there during the time of the epidemic.

He found that there were two classes of cases: one in which the temperature ranged from 100° to 106°, with a hot, dry skin; and a second, where the temperature ranged between 97° and 100°, with a cold, clammy, and much yellower skin. The latter variety was more fatal.

The symptoms were in the main like those of former epidemics, but a number of interesting characteristics were noted.

The pulse was always so irregular as to be of help in the diagnosis. It ranged from thirty-five to one hundred and forty beats a minute. It bore no relation to the temperature. The fever was a continued one. It had remissions, but not intermissions. The fœces were red and swollen; the tongue, eventually, dry and cracked, unlike the flabby and enlarged tongue of malarial fever. From the skin there exhaled the peculiar rotten-hay odor always noticed. Herpetic eruptions about the mouth and nose were frequent.

The urine had at first a high specific gravity, falling as the disease progressed. It was small in amount at first also, and suppression with uræmia was always to be looked out for. It generally contained bile, and *always* albumen, the amount, however, varying very much. There were also granular casts. The amount of albumen and casts was in proportion to the severity of the disease, and furnished a valuable aid in prognosis. Vibrios and bacteria were found in the breath and the blood. The proportion of white blood-corpuscles was increased. Black vomit occurred in half the cases, and did not prove so very unfavorable a symptom, as a third of those thus affected got well. There were melænic stools as usual. A hemorrhagic tendency was constant, but was easily controlled by a spray of Monsel's solution. The blood oozed from the mouth, eyes, nose, ears, etc.

Just before death, the temperature generally fell to 97°. After death it gradually rose, sometimes to 106½° in the axilla, the body remaining warm for twelve hours.

The average duration of the disease was four days.

Very careful post-mortem examinations were made, the kidneys and liver giving the most uniform lesions. The stomach showed no erosions, congestion, or catarrh. The hemorrhages from it were passive ones. The liver was enlarged and generally of some shade of yellow. The microscope showed more or less fatty infiltration and fatty degeneration, with occasionally increase of connective tissue.

The kidneys always showed under the microscope the tubules choked with finely granular *débris* and epithelium, or in other places empty and denuded of epithelium. There were no important changes in the other organs.

The treatment consisted in at once exerting the emunctories to action, especially the skin and kidneys. The patient was then kept cinchonized and the various symptoms combated as they arose. The cases brought to the hospital were uniformly bad ones, the disease generally being in the second stage when they were received. The patients had previously suffered from neglect and exposure, and the mortality therefore of thirty-one is not considered high.

None of the physicians, attendants, or visitors at



the hospital caught the disease, although no especial pains were taken in the way of protection and disinfection.

## Reviews and Notices of Books.

TRANSACTIONS OF THE AMERICAN GYNÆCOLOGICAL SOCIETY. Volume II. 650 pages, 12 chromo-lithographs and many other illustrations. Boston: Houghton, Osgood & Co.

THE second volume of the Transactions of the Gynecological Society makes its annual appearance, and from the variety and extent of the articles which it contains, merits a somewhat detailed notice.

Professor Barker in his address makes a strong plea in favor of greater attention to the medical treatment of diseases of women. While gynecological surgery has made prodigious progress, the constitutional and strictly medical treatment of diseases peculiar to females has been too universally neglected, says the President of this Society. He, evidently, is no partisan of the "mechanical treatment" practice, and further says that "the use of pessaries . . . is neither safe nor useful until all associated pathological conditions, due to antecedent or coincident inflammation, have been overcome." Undoubtedly this is true as regards any existing pelvic cellulitis or peritonitis, either acute or chronic, strong adhesions of the womb due to the previous existence of the above inflammations, etc., but to await the removal of subacute or chronic uterine inflammations or congestions or their consequences, must certainly discourage the practitioner, to say nothing of the patient. Such practice must certainly be pronounced injudicious, to say the least, since, in the great number of cases, the "pathological conditions" cannot be removed till the dislocated organ has been properly supported. It is the every-day experience of the "mechanical" practitioners to quickly relieve their patients, in many cases to ultimately cure them, by the immediate use of pessaries, after the patients have been long and *ad nauseam* under local antiphlogistic and tonic, without neglect, either, of constitutional treatment. As Dr. B. urges, the importance of constitutional and hygienic treatment should not be lost sight of in our eagerness to adopt local measures.

II. The Functions of the Anal Sphincters, so called, with two woodcuts, by Dr. James R. Chadwick, of Boston, Mass., is an interesting and practical paper. His conclusions may be summed up as follows:

1. There is an aggregation of circular muscular fibres at between three and four inches from the sphincter ani, encircling the posterior half of the circumference of the rectum, first described by Nélaton and Velpeau. 2. Involuntary in action, their function is that of completing the expulsion of the feces from the alimentary canal, and they should be called the *Detrusor Fecium Superior*. 3. This detrusor and the internal sphincter ani (which should be called the *Detrusor Fecium Inferior*) divide the rectum into three pouches, one situated between the external (true) sphincter ani and the inferior detrusor, another, between the latter and the superior detrusor, which is called the *ampoule rectale*, and a third, the remaining portion of the rectum. 4. To pass the obstructions offered by the two detrusors, the point of the bougie should take the following directions: through the sphincter ani directly backward along the perinæum,

meeting the inferior detrusor; it should then be turned forward and upward, then backward through the *ampoule*, afterward forward again to pass the superior detrusor, and, finally, slightly backward and upward through the rest of the rectal cavity. 5. "As the anterior half of the superior detrusor is just below the level of the bottom of Douglas' pouch, it seems probable that the point at which intraperitoneal abscesses are most likely to perforate the rectum is just above this constricting fold." 6. Probably the *detrusor superior* and supra-adjacent parts are the first to appear in cases of *prolapsus recti*.

III. Excision of the Cervix Uteri, its Indications and Methods, with one woodcut, by Dr. John Byrne, of Brooklyn, N. Y., is an article of paramount value and considerable length. The indications for the operation are those found enumerated in Thomas' excellent work. The author decidedly advocates the galvanic cautery as the very best means at our command. He gives full directions for its use, pointing out the necessity for a thorough knowledge of electro-physics in manipulating this powerful agent. Four cases of epithelioma uteri are reported, and in all there had been no return of the disease in 7, 6, 5+, and 2+ years respectively. Two cases of carcinoma uteri are also recorded; in one there was no return of the disease till 2½ years, in the other (encephaloid cancer of the entire uterus and vaginal walls) the symptoms were greatly improved. Finally, a case of simple hypertrophy of the cervix, with procidentia and cystocele, wherein permanent elevation of the organ took place following the operation. Drs. Goodell and Noeggerath supported Dr. Byrne's views, whilst Drs. Jno. Scott, of San Francisco, and Byford held that the operation (excision) should only be performed for epithelioma and carcinoma, the former giving his solemn protest against the use of galvano-cautery instead of the scissors.

IV. Report on the Corpus Luteum, with twelve chromo-lithographic plates, by Dr. John C. Dalton, of New York, is intended to support the ovulation-menstruation theory, although there is one case (xvii., p. 136) reported where menstruation was regular without the rupture of the Graafian follicles, or formation of *corpora lutea*. The article is especially valuable, covers fifty pages, and cannot be well condensed. The plates are very fine.

V. The Pathology and Treatment of Puerperal Eclampsia. By Professor Otto Spiegelberg, of Breslau, Prussia. True puerperal eclampsia is, according to the author, dependent upon uremia. There is a form, without coincident albuminuria, which is strictly *epileptic*. The indications for treatment are: restoration of the renal functions; diminution of arterial pressure; reduction of all irritation of the vaso-motor and spasmodic nerve-centres. In the *true* form, venesection, narcotics, and termination of labor, if it have already commenced, are the remedies. Venesection stands first. The induction of premature labor "is not called for, . . . is absolutely harmful." Purgatives, diuretics, diaphoretics, as well as tonics, are useful in prophylaxis. In the "epileptiform attacks," chloroform, chloral, and morphia are alone indicated. Although there are conflicting opinions as to the value of venesection, undoubtedly there are cases, and these too uræmic, where it is of inestimable value. The previous history of the patient as to nervous affections (epilepsy, chorea, etc.), the condition of the kidneys at the time, as well as the character of the convulsions, are points of the utmost importance in deciding as to the treatment of individual cases.

VI. Dilatation of the Cervix Uteri for the Arrest of

Uterine Hemorrhage. By Dr. George H. Lyman, of Boston. VII. The Principles of Gynecological Surgery applied to Obstetric Operations. By Dr. A. J. C. Skene, of Brooklyn, N. Y. VIII. On the Necessity of Caution in the Employment of Chloroform during Labor. By Dr. William T. Lusk, of New York, are papers of practical importance. Dr. Skene advocates the use of the speculum as rendering many obstetrical operations of easier performance. Dr. Lusk concludes: "Deep anesthesia weakens, in some cases suspends, uterine action. Even small doses of chloroform, during the second stage, may so weaken uterine action as to create the necessity for the use of ergot or the forceps. Parturient women do not enjoy an absolute immunity from the pernicious effects of chloroform. It should never be given in the third stage of labor (eclampsia excepted). The remote effects of large doses of chloroform during labor require further investigation."

IX. The Present Status of the Intra-Uterine Stem in the Treatment of Flexions of the Uterus. By Dr. Ely Van de Warker, of Syracuse, N. Y. This paper goes to support the opinion that the use of the stem-pessary is much more extended than is generally represented, and that the feeling of insecurity in its use "is traditional, and not the result of accumulated experience." In the discussion which followed, Dr. Thomas opposed the general use of the stem-pessary with both vigor, facts, and argument. Dr. Peaslee admitted his willingness to use it in a few cases of extreme antelexion only. Dr. Goodell, in spite of his admission that "there are certain stubborn cases of antelexion, and, for the matter of that, of retroflexion too, which can be satisfactorily treated in no other way than by the stem," confesses he is "on tenterhooks until the first week is passed, and always feels relieved when the stem has been removed for good." Dr. A. H. Smith, of Philadelphia, would temporarily use it, in the *retort* form of retroflexion. Dr. Byford, Chicago, treats flexion by the use of slippery-elm tents (an admirable suggestion), whilst Dr. W. L. Atlee rejects the use of pessaries altogether in his practice.

In the hands of the reviewer the use of, first, *lamina* tents; secondly, Smith Hodge's or Grailly Hewitt's anteversion pessaries; and, thirdly, faradic electricity to the uterus by the sound within the uterine canal, have been very successful, and thus far devoid of danger.

X. Supplement to the Report of a Case of Xenomenia made at the First Annual Meeting in 1876. By Dr. Theophilus Parvin, Indianapolis, Ind. XI. A Case of Vaginal Ovariectomy. By Dr. William Goodell, of Philadelphia, Penn. Two papers well worth reading.

XII. Is there a Proper Field for Battey's Operation? By Dr. Robert Battey, of Rome, Ga., is ably answered by the originator of the operation. The remarks of Dr. Peaslee during the discussion are of special value. The paper and its discussion is pregnant with food for thought.

XIII. Subsulphate of Iron as an Antiseptic in the Surgery of the Pelvis. By Dr. H. P. C. Wilson, of Baltimore, Md. Although Dr. Wilson thinks pessaries of but little value, he evidently is convinced he has found the great antiseptic. Monsel's solution is his "hobby" undoubtedly; nevertheless Dr. W. brings forth such a number of facts as to well warrant the fair trial of this agent by gynecologists and surgeons.

XIV. Tetanus after Ovariectomy, by Dr. Theophilus Parvin, of Indianapolis, Ind., is the report of a fatal case which occurred in the author's practice. He gives a table of such cases. XV. Sarcoma of the

Ovaries. By Dr. Washington L. Atlee, of Philadelphia, Penn. A very interesting paper upon an extremely rare disease. The whole article must be read to be appreciated. XVI. The Value of Electrolysis in the Treatment of Ovarian Tumors, as seen in the Light of Recent Experience, by Dr. Paul F. Mundé, of New York; is a long and exhaustive article. The author concludes that electrolysis compares unfavorably with ovariectomy, and can only be thought of in, *a*, small monocysts, where a serious radical operation is uncalled for; *b*, large tumors having extensive, especially pelvic adhesions. XVII. Congenital Absence and Accidental Atresia of the Vagina; Mode of Operation to Establish the Canal, and to Evacuate retained Menstrual Blood. With three woodcuts. By Dr. Thomas Addis Emmet, of New York. XVIII. Case of Sarcoma of the Kidney in a Negro Child. With heliotype. By Dr. W. H. Geddings, Aikin, S. C. XIX. The Hystero-Neuroses. By Dr. George J. Engelmann, of St. Louis, Mo. Must be read to be appreciated. XX. Cases Illustrating Important Points connected with Ovariectomy. By Dr. Gilman Kimball, of Lowell, Mass. And these points are: 1. The treatment of hemorrhage following the breaking up of adhesions, by *prolonged pressure with soft cotton cloth* (in certain cases), by excluding the bleeding peritoneal surfaces from the abdominal cavity with *quilled sutures*, and, again, by the *excision* of large portions of the *omentum*. 2. The treatment of sub-acute inflammation and septicemia by *drainage, antiseptic injections*, and the *early and liberal use of nourishment and stimulants*. Eight illustrative cases are given in detail. XXI. The Radical Treatment of Dysmenorrhœa and Sterility by Rapid Dilatation of the Canal of the Neck of the Uterus. With one woodcut. By Dr. Elwood Wilson, of Philadelphia, Penn. XXII. Dr. Uvedale West's Views of Rotation, as illustrated by the Contrast between the Mechanism of Simple Occipito-Posterior Positions and those of the Bregmatico-Cotyloid Variety. By Dr. John P. Reynolds, of Boston, Mass. The former article advances nothing especially new. The second may be read with interest and profit. XXIII. Vascular Tumors of the Female Urethra; with the Description of an Instrument Devised to Facilitate their Removal. By Dr. A. Reeves Jackson, of Chicago, Ill. XXIV. The Simpler Varieties of Perineal Laceration; their Consequences and Treatment. By Dr. Thaddeus A. Reamy, of Cincinnati, Ohio, merit no especial mention further than to say Dr. R.'s instrument is simply a very small size glass reflecting rectal speculum. Dr. Reamy exhorts us to repair all lacerations, *however slight*. XXV. Lying-in Hospitals; especially those in New York. By Dr. Henry J. Garrigues, of Brooklyn, N. Y. The author concludes, from quite an extensive observation of lying-in hospitals in New York City and its immediate vicinity, that, properly managed, large hospitals are not to be feared; that preventive antiseptic treatment is desirable; that there is room for the improvement of the condition of these hospitals in New York. XXVI. The Cyclical Theory of Menstruation, by Dr. John Goodman, of Louisville, is an article well worth the most careful consideration. The author's theory is opposed to that of ovular menstruation, and may be briefly expressed as that of a law of periodicity, the operation of this law being presided over by the ganglionic nervous system. XXVII. In Memoriam Charles E. Buckingham, with a heliotype portrait. By Dr. George H. Lyman, of Boston, Mass.; Index of Obstetrics and Gynecological Literature of all Countries, from July 1, 1876, to January 1, 1877, close this valuable work. This review demonstrates the



practical worth of this second volume of transactions, and, congratulating the Society upon its latest achievements, we feel that we are only performing our duty in recommending every practitioner who is interested in gynecology to add this volume to his library. It is handsomely printed on cream colored paper. Heavier binding would have been more suitable, however.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, Nov. 13, 1878.*

DR. J. C. PETERS, PRESIDENT, IN THE CHAIR.

(Concluded from page 477.)

#### LUMBO-ENTEROTOMY INSTEAD OF LUMBO-COLOTOMY.

DR. C. K. BRIDGON presented a specimen of small intestine which had been taken up instead of the colon in the operation for lumbo-colotomy, and gave the following history: Colored woman, aged about 30, had been in the hospital department of the Colored Home for some time, suffering from the effects of stricture of the rectum. She was broken down with syphilis, had a number of perineal fistule and stricture reaching pretty high up; she had passed through some dangerous attacks of obstruction, the last occurring nineteen days before her death, when her temperature rose to 102°.

Operation was made October 24, 1878, in the presence of Profs. Alfred C. Post, Jos. W. Howe, Dr. Geo. F. Shady, and others. It was designed to open the colon in the left lumbar region; a point was marked precisely half an inch behind the centre of the ilium—transverse incision about four inches long between lower rib and crest of ilium. The outer border of the quadratus lumborum was clearly exposed, and, on dividing the abdominal fascia immediately external to that landmark, a small portion of fat projected into the wound, followed by intestine; the intestine was covered by filamentous tissue, which was separated to some extent by tearing, and the intestine looked precisely as I have ever seen it when the colon was exposed. It is quite certain that the free surface of the peritoneum was not exposed to view. The intestine was transected in the usual manner, and attached to the neighboring integument.

For five or six days after the operation the patient did well. The only circumstance I noticed that was unusual was the fact that the intestinal discharge was very thin, and caused a good deal of excoriation of the skin; but the wound by that time was nearly all united. After the sixth day the patient gradually sank, and died on the tenth day after the operation.

At the autopsy Dr. F. E. Russell found a loop of small intestine, six and a half feet from pyloric end of stomach, converging and united to operation-wound in left lumbar region; parietal peritoneum formed a funnel-shaped depression at that point, and was also united to the integuments of the loin. There was evidence of very slight peritonitis, limited entirely to the immediate vicinity of the junction of the serous membrane with the skin.

The colon was remarkably contracted, from the splenic curvature to its termination in the rectum. At some points its diameter was less than half an inch. It lay half an inch within the external border of the quadratus lumborum; its coats were opaque, thick-

ened, contracted, and wanting in their usual resiliency; near the rectum the mucous membrane was studded with spots of ulceration. Post-mortem analysis of this case would show the sequence of events in the operation to have been as follows: After incision of the deep abdominal fascia, the parietal layer of the peritoneum in the immediate vicinity of the outer border of the quad. lumb. was projected into the operation-wound, like a hernial sac pushed outward by a loop of small intestine; the sac of peritoneum was intact, and was only interfered with when the gut was transected and united to the integument.

I don't see any precaution that would have obviated such a result. The preparation shows that the operation-wound was precisely and immediately external to the deep landmark, the quad. lumb. at the exact spot where the colon generally presents. We do not always see those marks which distinguish large from small intestine. The hernial sac, as it presented in the wound, was not influenced by the movements of respiration. The operation was regarded as a remarkably easy one, and not a doubt was entertained by any one present as to the character of the gut; in fact, where the colon is contracted to such an extent as to leave unoccupied the place where it is usually found, and that space yields to the pressure of small intestine covered by parietal peritoneum, I do not see how the condition can be distinguished unless by a procedure suggested by my friend, Dr. T. T. Sabine, who says that by pinching up the protruded walls between the finger and thumb you may distinguish between mucous and serous membranes, by their different thicknesses. Such a test might avail, but I think that in the majority of cases the newly-formed sac would be found too tensely stretched over the gut to permit of such manipulation.

Dr. Mason remarked that the accident of taking up the wrong gut in lumbo-colotomy was a rare occurrence. Several cases had, however, been reported, and in none of them were the results seemingly within the control of the surgeon. Several years ago Dr. Mason met with such an accident himself, the colon having been bound down and displaced by old adhesions. At the time the intestine was exposed during the operation there was no doubt in the minds of any of the gentlemen that it was the colon. It proved afterward, however, to be the jejunum.

#### A SURGEON LOSES HIS RIGHT HAND — REMARKABLE FORTITUDE.

DR. BRIDGON presented a second specimen, which consisted of the right hand, which had been severed by a heavy cutting-knife in a bookbindery. The victim of this unfortunate accident was Dr. Leavitt, of this city, who exhibited a coolness and fortitude under the great mental and physical strain which constituted the remarkable feature of the case. On the afternoon of October 29, the patient paid a visit to a bindery, in which he was peculiarly interested; and while standing by the machine, accidentally set in motion, the knife came down upon his right hand, severing it just below the wrist and through the second row of carpal bones. Dr. L. promptly seized the stump, controlled the hemorrhage, covered the wound with bandages, and then wrapped the right hand in a towel and rode in a street-car from Fourteenth Street to Fifty-first Street, a distance of nearly two miles. Dr. Bridgdon was asked by Dr. Hadden to see the case in the evening, when a consultation was held with Drs. Hadden, Geo. F. Shady, and Beckwith, resulting in a decision to amputate at the wrist-joint. During the consultation the patient himself discussed the practi-

cability of merely trimming the stump and not sacrificing the carpus. The skin was so extensively separated from the dorsum of the wrist that it was impossible to cover those bones, there being barely enough integument upon the palm for a stump of the wrist. After the operation was determined upon, the patient busied himself in arranging his room, in fixing the operating-table, and attending to many other details. He carried his personal interest in the operation to the extent of requesting that no ether should be administered to him. This wish, for obvious reasons, was not gratified. The amputation was performed in the usual way, and a flap was made from the palm of the hand.

#### EPITHELIOMA—BLEPHAROPLASTY.

DR. NOYES exhibited a small specimen of epithelial growth removed by operation from the eyelids, which was of interest in connection with the means used to fill up the gap which was left. The patient was a lady aged 50 years. Nineteen years ago she noticed a small growth on the inner border of the lower lid, near the punctum. This remained stationary for ten or twelve years, when it began to spread along the border of the lid and at the same time broke down in ulceration. Within the past year the disease extended itself over the lachrymal sac, involved the inner portion of upper lid, and made in all a tumor the size of a hazel-nut. Two-thirds of the lower and one-third of the upper lid were occupied by the disease as well as the adjoining side of the nose. The operation of removal was performed without difficulty, the tumor shelling out from the underlying tissues easily. The lachrymal sac was exposed, but was not opened. Actual cautery was employed along the inner portion of the wound. In order to fill up the deficiency of the growth occasioned by the extirpation, a vertical incision was first made in a line with the inner canthus and along the side of the nose to the reflection of the mucous membrane of the gum. From the outer canthus an incision was also extended horizontally across the malar bone to within a half inch of the ear. The flap thus created was dissected up and slid inward toward the nose, thus restoring the lower lid. A space was left on inner canthus and inner portion of upper lid. An attempt was made to fill up this space by transplanting a severed portion of skin from the arm, according to the method proposed by Mr. Wolf of Glasgow. But sloughing of this piece occurred, owing, as Dr. Noyes thought, to the fact that actual cautery had been previously used in that portion of the bed of the wound. Union occurred by first intention throughout the flap for the lower eyelid. A second attempt to fill up the vacancy of inner portion of upper lid was made shortly afterward. An incision from the upper limit of the gap was made horizontally across the root of the nose, and then at right angles downward. The flap thus created was turned upon itself edgewise and accurately adapted to the edges of the gap. Her recovery was complete and satisfactory. The tumor was examined by Drs. Bull and Satterthwaite, and found to be an epithelioma.

#### REMOVAL OF MELANOTIC EPITHELIOMA FROM EYEBALL, SAVING THE EYE.

DR. NOYES presented a small malignant tumor which he removed from the exterior of the eyeball, and at the same time preserved the eye. The patient was a gentleman, aged forty-eight years, who first noticed a small black speck on the white of the left eye seventeen years

ago. This remained stationary for twelve years, and then grew slowly for five years. Within the past year the increase had been very rapid, presenting a black raspberry appearance, overlapping the outer third or more of the cornea and nearly as much of the adjacent sclerotic. On looking at it, the first impression was that it grew from the interior of the eye; but a closer examination showed that the eye was perfect, and that the eyeball was not affected. The patient came to Dr. Noyes after having seen other ophthalmologists, who advised enucleation of the eye. It struck Dr. Noyes, however, that the tumor could be detached from the surface of the globe, and he accordingly made the attempt. The operation was performed by a curved scissors, and was entirely successful. The tumor grew from the episcleral tissue and from the limbus. The surface of the wound was easily covered by dissecting up the edges of the conjunctiva and bringing them together. The growth was examined by Drs. Bull and Satterthwaite, and found to be a melanotic epithelioma. Dr. Noyes concluded the presentation of this interesting specimen by an exhaustive review of the literature of the subject.

#### IMMENSE VESICAL CALCULUS.

DR. WEIR presented an immense vesical calculus removed by Dr. C. T. Gardner, of Providence, R. I. It weighed twelve and a half ounces, measured in its several diameters three and three-eighths inches, three and one-eighth inches, and two and a quarter inches, and had for a centre a small oxalate calculus, the periphery being made up of phosphates. The operation for its removal was commenced with the lateral incision, but was afterwards extended into the bilateral section, as the instruments on hand were insufficient to crush it *in situ*. The patient, a man of 49 years, did well after the operation; a rectal fistula that formed from sloughing spontaneously closed.

Until he had looked this afternoon into Eve's "Surgical Cases," Dr. Weir was under the impression that the stone exhibited was the largest that had successfully been removed entire in this country by the perineal section. But he found in that work a record of a calculus removed by Dr. Mettner, of Virginia, weighing sixteen ounces, with recovery of the patient. Abroad, Mr. Hadmer, of Norwich, England, has the credit of having in 1746 successfully extracted a stone weighing nearly fifteen ounces. Mr. Mayo, of Winchester, England, removed one of fourteen and a half ounces, but it was broken before extraction.

#### LITHOTOMY—CAUSES OF RETENTION OF URINE.

DR. WEIR presented also an unusually fine specimen of a very rough calculus of uric acid and oxalate of lime, which weighed  $1\frac{1}{2}$  ounces, and measured  $1\frac{1}{2}$  inches in diameter, which had been removed by him successfully by the lateral operation in June last. An attempt was made immediately prior to the operation to crush the stone after Bigelow's method; but all the instruments resorted to—Weiss's, Keyes', and even one of Bigelow's—failed to accomplish this end. The stone resisted so stoutly the influence of the screw power of the large lithotrope of Bigelow as to break the attachment of the screw at its outer end. In respect to the operation itself, Dr. Weir called attention to the difficulty, that was not unfrequently noticed with a deep perineum, in effecting satisfactorily the section of the mouth of the bladder—a failure attributed in one instance that had occurred to him to the end of the staff not being sufficiently far in the bladder. To obviate this, in the present case a staff was employed, which was almost rectangular, and the vesical



cal end of which was some two inches longer than the ordinary instrument. Yet with the aid of this instrument a subsequent nicking of the other side of the prostate was necessary to extract the stone. With the free division of the prostate, there was, moreover, for nearly forty-eight hours, retention of urine, only relieved by the catheter. This condition, which has only occasionally been noticed after the lateral operation for stone, is probably due either to coagula, or to the general swelling of the more or less centred parts, or, as was suggested by Dr. Sands in a similar case, to the tumefaction of an enlarged median lobe.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 8 to December 14, 1878.*

KINSMAN, J. H., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension, provided he furnish a substitute at own expense. S. O. 94, Dept. of the South, Dec. 5, 1878.

KOERPER, E. A., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for an extension of three months. S. O. 110, Dept. of the Platte, Dec. 3, 1878.

LAUNDERDALE, J. V., Capt. and Asst. Surgeon. Granted leave of absence until February 1, 1879. S. O. 262, A. G. O., Dec. 6, 1878.

SKINNER, J. O., 1st Lieut. and Asst. Surgeon. Assigned to duty at Camp Lowell, A. T., as Post Surgeon. S. O. 137, Dept. of Arizona, Nov. 28, 1878.

WILCOX, T. E., 1st Lieut. and Asst. Surgeon. When relieved, to proceed to obey the orders he has received from Headquarters of the Army. S. O. 221, Dept. of the Missouri, Dec. 6, 1878.

BARNETT, R., 1st Lieut. and Asst. Surgeon. Leave of absence extended one month. S. O. 99, Div. of the Missouri, Dec. 5, 1878.

GARDINER, J. D., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Camp Huachuca, A. T. S. O. 137, C. S., Dept. of Arizona.

## Medical Items and News.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 14, 1878.

| Week Ending    | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|----------------|---------------|----------------|----------------|----------------------------|----------|-------------|------------|---------------|
| Dec. 7, 1878.. | 0             | 7              | 120            | 1                          | 8        | 55          | 0          | 0             |
| Dec. 14, 1878. | 0             | 10             | 168            | 5                          | 1        | 50          | 0          | 0             |

DR. EMELINE H. CLEVELAND, who died on Sunday, December 8th, at her residence, Eighteenth and Mount Vernon Streets, Philadelphia, of consumption, was born in Connecticut, September 22, 1829. She was educated at Oberlin College, went to Philadelphia in 1853, graduated at the Woman's Medical College in 1855, and became Demonstrator of Anatomy at that institution. In 1857 she was elected Professor of Anatomy there, and subsequently was sent by the col-

lege to Paris, where she entered the Maternity Hospital, and for a year studied its organization. Upon returning to Philadelphia, she resigned the chair of Anatomy and accepted that of Obstetrics and Diseases of Women and Children, and also became resident physician of the new Maternity Hospital of the college. In 1867 she was made a corporator of the college. Her private practice growing large, she resigned as resident physician, but retained her professorship until the close of the last session. To her was mainly due the success of the Hospital's Training School for Nurses. She leaves a husband and one child.

FREDERICK GREENWOOD SNELLING, M.D., of whose sudden death notice has already been taken, was born in New York, July 26, 1831. His parents were Andrew Symmes Snelling, Esq., of Boston, and Eliza Templeton Strong, daughter of the late Benjamin Strong. He was educated at the University of New York, and graduated at the University Medical College in 1859. At the breaking out of the war he volunteered with Col. Berdan's Sharp Shooters as Assistant Surgeon, and was at the battles of Hanover Court House, Big Bethel, Siege of Yorktown, West Point, White House, Cumberland Landing, Cold Harbor, and on the Chickahominy. He was next promoted to Brigade Surgeon to General Martindale's Division, and as such was at the battles of Fair Oaks and Seven Pines. He was then made Division Surgeon in Gen. Burnside's and Foster's Commands and sent to North Carolina, where he planned, built, and stocked the Hardy, Foster, and Morehead City General Hospitals, and renovated the Hammond and Old Navy Hospitals, fitting up over 2,500 beds. He also established port hospitals at Washington, N. C., Plymouth, and Hatteras Inlet. He was then made Medical Director of the Department of North Carolina, and at one time had 167 Surgeons and Assistant Surgeons reporting to him, with about 3,000 sick and wounded under charge. He was present at the battles of Southwood Creek, Kinston, Whitehall, and Goldsboro. He volunteered, with his friend Col. Gouraud, to convoy food and ammunition to Little Washington, N. C., when this was invested by the enemy, and succeeded in so doing under a very heavy fire. He next followed Gen. Foster to South Carolina and participated in the first operations against Fort Sumter and Charleston.

Late in 1864, when his health was much broken by Chickahominy and other fevers, and suffering much from chronic diarrhoea and dyspepsia, he was prevailed to resign, and soon after accepted the position of medical examiner of the Mutual Benefit Life Insurance Company, which he held until his death. Dr. Snelling was very fond of surgery and dissected much almost every season, and thereby materially increased his ill health. For the last four years of his life he suffered almost daily pains, and had very sleepless nights. He was forced to stay in almost every evening, and was generally in bed by nine o'clock. He served for many years at the New York Eye and Ear Infirmary, and was well posted on all diseases of the eye, ear, and throat. His great characteristics were his high sense of honor, his great conscientiousness in every line of duty, and his earnest and devoted application to every pursuit which he undertook. His delicate health long prevented him from going out in the evenings, and prevented him from attending the meetings of the medical societies; but he was a member of almost all of them, and most cheerfully paid all his dues for the benefit of the whole. It has often been a matter of wonder how cheerfully and manfully he bore himself by day when almost every

night was passed in severe suffering. He was always exceedingly gentlemanly and courteous, and kind to many who were not nearly as sick as himself. J. C. P.

ROBERT NILLIS, M.D., Librarian of the Royal College of Surgeons, England, died at Surrey on the 21st ult., in the eightieth year of his age. He had just completed a life of Harvey.

GURJUN BALSAM IN GONORRHOEA.—The following is Vidal's formula: Gurjun balsam, gmm., 4.00; gum, gmm. 4.00; infusion of anise, gmm. 40.00. M. Divide into two doses, and take one immediately before meals. Gurjun balsam is cheaper and acts more rapidly than copaiva, and has no disagreeable effect on the stomach.

YELLOW FEVER IN MEMPHIS, TENN., IN 1855, ETC.—The following item is an extract of a brief history of the progress of yellow fever in Memphis, Tenn., in 1855, by Dr. L. Shanks: "Previous to the late epidemic, Memphis has been regarded as being above the yellow fever region in the Mississippi Valley, and secure against its origin and development as an epidemic, from any cause. Memphis has heretofore occupied a position on the Mississippi River, above the region in which cases of the yellow fever have originated; and though exempt from the disease, the citizens, and especially the physicians, have been familiarized with it, by the number of cases on the boats passing up the river, when it has prevailed as an epidemic in New Orleans, Natchez, Vicksburg, and at other places below. The boats coming from the infected places always landed here, and were freely visited by the citizens and physicians when either business or the professional call of the physician required it. In this way the sick passengers upon the boats were not only frequently seen and administered to, but when they desired it were occasionally removed from the boats to the hotels and boarding-houses in the city, to be better attended to in the way of nursing and having medical aid. No fear ever existed here of the propagation of the disease by cases thus brought from the infected boats on the river into the city; and no instance has occurred in which a single case of the yellow fever has thus been produced here by contact with the sick, the dying, or the dead from the boats. The non-contagiousness of the disease has not only been demonstrated here in that way for many years, but it has been still more largely confirmed by the results at the Memphis Charity Hospital. When the yellow fever has prevailed as an epidemic in New Orleans, there has always been cases occurring on the boats after leaving that city, before their arrival at this port. Many of these cases have been put off at the landing here, and sent through the city to the hospital, in former years. In 1853, about sixty cases; in 1854, forty cases; and in 1855, forty-two cases were thus sent from the boats to the hospital. Of these cases a large proportion died, as they were sent out at an advanced period of the attack; but not a single instance has ever occurred of a nurse, or other patients, or persons in or about the hospital taking the yellow fever from these cases."

ANALYSIS OF ADULTERATED BUTTER.—The City Chemist of Cleveland, Dr. Classen, in a recent report on butter adulterated by mixture with lard, gives a simple method of testing for this fraud. The suspected butter is melted, and about fifty grains of it poured into a test-tube. When this is cooled to the temperature of the human hand, there is to be added, mixing slowly by agitation, 120 grains pure sulphuric acid. If the butter is pure, the mixture will at once

become yellow, and afterward a bright yellowish red. If lard is present, the mixture will pass from the color last named to brownish red, brown, and, perhaps, brownish black.

RARE CASE OF FECUNDITY IN THE BOVINE RACE.—In the village of Kerdane, France, a cow recently dropped at one birth four calves, two males and two females. From lack of proper care the two latter perished, suffocated by the mother. The same cow had two calves in the preceding year, her production thus amounting to six in one twelvemonth.

TREATMENT OF GONORRHOEA.—Locchini recommends for acute gonorrhoea, two injections daily of a solution of chloral hydrate (1:100). He claims that it relieves rapidly the most troublesome symptoms, and even effects a cure after only a few injections.—*Deutsche Med. Wochen.*

TREATMENT OF ULCERS.—Dr. Mandelbaum asserts that ulcers of the leg which have proved rebellious to all other methods of treatment, can be invariably cured by scraping, followed by the application of iodoform which must be continued for several days, and, after fresh granulations have appeared, by firm pressure with equal parts of mercurial and soap plaster.—*Berl. Klin. Wochen.*

SUPERFETATION.—Dr. S. E. Ranney, of North Bennington, Vt., writes: "One of those very rare cases of apparent, if not real, superfetation has just fallen under my observation. The woman is colored; the children born were both premature and dead. The first presentation was a fetus of about three and a half or four months, living in a complete house of its own. The delivery was easily accomplished, and a placenta corresponding to the size of fetus was soon removed; on examination, there presented the head of another, of nearly eight months' growth, also in its own proper sac, with large placenta. The smaller fetus showed no signs of decay, and appeared in all respects like an ordinary product of three and a half to four months' growth."

"If this is simply arrest of growth on account of early death in the smaller fetus, can it be explained why nature did not much sooner expel it?"

TURPENTINE-VAPOR BATHS IN RHEUMATISM are highly recommended for the chronic form. Place the patient in a wooden chest, allowing the head to remain free. Conduct into this wooden chest steam loaded with oil of turpentine spray. The temperature of the bath should be 104° F. to 113° F. Let the patient remain therein about fifteen minutes. Repeat them according to the nature of the case.

HOOPING COUGH AND ULCERATION OF THE FRÆNUM.—A recent report before the Academy of Medicine in Paris, says that the ulceration is an affect rather than a cause of the disease, and is due to the protrusion of the tongue and the scraping of its under surface against the teeth, in the act of coughing.

THE YELLOW FEVER FUND.—The committee of the Medical Society of the County of New York has received \$100 from Dr. Marion Sims, now in Paris, and \$179.46 from the Hon. Smith Ely, Esq., Mayor of the City of New York, the unappropriated balance remaining in his hands, of which \$106.40 comes from the remaining funds of the Citizens' Relief Committee, per I. A. Tappan, Treasurer; 290 francs from I. E. Montgomery, Esq., U. S. Consul at Geneva; \$24 from Messrs. Allan Hay & Co.; \$16.28 through Capt. Petty of the Fourth Precinct of this city; from V. N., \$5; and cash, \$2.68. Total, \$179.36.



## Original Lectures.

## LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

By JOS. C. HUTCHINSON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON-IN-CHIEF TO THE BROOKLYN ORTHOPEDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

## LECTURE V.

TALIPES VALGUS, OR FLAT-FOOT: CONGENITAL AND NON-CONGENITAL—MORBID ANATOMY—TREATMENT.

We will now, gentlemen, consider another deformity of the foot, known as talipes valgus. This distortion is the direct opposite of varus, and is much less common, especially as a congenital affection. We shall study first the congenital form.

An attempt has been made to distinguish between flat-foot and talipes valgus, but the distinction is purely arbitrary, and they should be regarded merely as degrees of the same distortion. The term flat-foot



FIG. 17.

is applied to that condition in which there is simple sinking of the arch of the foot; and valgus to that state, in which, in addition to the obliteration of the arches, there is eversion and elevation of the outer border of the foot, and the weight of the body rests on its inner margin. The cast represents this deformity a little more marked than we usually see it. (Fig. 17.)



FIG. 18.

A more severe distortion is shown by this cast. (Fig. 18.)

The arches of the foot, which you will remember are scarcely perceptible in early infancy, are held in position chiefly by the calcaneo-scapoid ligament, and the ligaments connecting the scaphoid with the cuboid and cuneiform bones. A weakness or congen-

ital elongation of these ligaments permits the arches to sink. The foot consequently presents a flattened appearance, and its various movements are seriously interfered with. Sometimes the longitudinal arch is reversed, so that the plantar surface of the foot is convex instead of being concave. This flattening of the arches, together with a greater or less degree of eversion of the anterior part of the foot, which takes place at the transverse tarsal joint, constitute the essential features of valgus.

When, in addition to the deviation just described, we have elevation or depression of the os calcis, the compound varieties of talipes, *equino-valgus* and *calcaneo-valgus* are produced. But these do not merit special consideration; they may be considered as cases of talipes valgus, with or without contraction of the gastrocnemius muscle. When the patient begins to walk, all the external characteristics of congenital valgus become more marked, and the pain and inconvenience which he suffers in walking are much greater from this deformity than from congenital varus.

*Morbid Anatomy.*—Dissection shows that the deviation of the foot in valgus is due to the rotation of the bones of the posterior part of the foot, particularly the scaphoid and the os calcis; on the cuboid, the deviation of the bones, however, is not so great as in the varus; the os calcis is rotated to such a degree that its inner concave surface is turned downward, and its long axis has become oblique from behind forward, and from without inward, and its tuberosity is elevated to a variable extent.

The *astragalus* may occupy its normal position, or it may be tilted forward and obliquely downward at birth, by the elevation of the tuberosity of the os calcis. The scaphoid and cuboid undergo a certain amount of rotation, and are completely luxated upon the astragalus and os calcis. On the inner side of the foot three bony prominences are noticed: the internal malleolus, the head of the astragalus, and the tubercle of the scaphoid, which is much depressed.

The *ligaments* on the inner side of the foot are elongated, while those on the dorsum and external side are shortened; exactly the reverse of what is observed in congenital varus. It is unnecessary to go into details.

The muscles in this deformity, as in cases of congenital varus, are merely shortened without alteration of structure; and, after the cure of the deformity, the muscular power of the limb is unimpaired. The deviation in the direction of the tendons is less marked in valgus than in varus, and they are less easily recognized.

In ordinary cases the contracted muscles are the peronei and the long extensors of the toes, and in severe cases the triceps surae.

The peroneus tertius and the long extensors of the toes, in their action, raise the outer edge of the foot; the peroneus brevis and the longus abduct the anterior part.

The prognosis in congenital valgus is usually favorable. When the treatment is begun at an early age the distortion is then easily overcome, and the usefulness of the limb can, as a rule, be perfectly established. When, however, the limb has been walked upon for some time, or when the deformity is associated with some malformation of the leg, there is greater difficulty in effecting a perfect cure.

## {NON-CONGENITAL TALIPES VALGUS.

The external character and the changes in the relative positions of the bones which are observed in con-

genital valgus, are so similar to that of the non-congenital form of the affection, that the description of the former may properly be applied to the latter. The longitudinal and transverse arches of the foot are obliterated, so that the inner margin of the sole rests flat upon the ground in standing. At first the arches are partially restored when the superincumbent weight is removed; but, after a time, the gradual yielding of the tarsal ligaments in the sole of the foot causes the foot to remain flat. In persons who stand much these ligaments sometimes become so much elongated that the plantar surface becomes convex, reversing the normal arches of the foot, as in the congenital form. The *outer margin* of the foot is not raised, as in the congenital variety, because there is no active muscular contraction; in fact, there is a feeble and over-stretched condition of the muscles. There is more or less eversion of the foot. Obliteration of the arches of the foot, producing flat-foot, is therefore the essential characteristic of non-congenital valgus. In cases of very long standing, however, the foot, from long-continued use, becomes bent upon itself at the transverse tarsal joint, and is held in this position by the muscles, which become permanently shortened.

This form of valgus may be caused by infantile paralysis affecting one or both tibial muscles; sometimes it follows convulsions which have been excited by dental irritation, or by febrile disorders; it may result from injuries or disease of the ankle-joint or foot; or from debility of the ligaments and muscles, accompanied by general debility. It often arises from the patient having been in the habit of carrying heavy weights, or from being for many hours in succession on his feet, especially if he has not a vigorous physique.

#### TREATMENT OF CONGENITAL VALGUS.

The pain and lameness produced by talipes valgus are greater than exist in any other deformity of a similar degree, and hence this branch of the subject should receive your most careful attention. The rules laid down for the treatment of congenital varus apply equally to the deformity now under consideration. A judicious combination of the physiological, mechanical, and operative means, varying as the amount of deformity and the rigidity of the foot vary, is as important in one distortion as in the other. If the foot can be completely adducted, or brought nearly into its normal relations with the leg by the hand, tenotomy is not usually required. In such cases we can effect a cure by the application of gypsum or felt splints, in the manner already shown for the treatment of varus. The foot, however, must be forced into a position directly the reverse of that practised in varus—by grasping it with the hand in front of the medio-tarsal joint, and forcing it inward, elevating at the same time its inner border; while, with the other hand, the heel, if it is elevated, is forced downward. The foot is held in this position until the plaster "sets." The same rules for the removal and re-application of the plaster, and for the physiological treatment of varus, are applicable to this deformity. When the distortion has been overcome by the treatment here described, an apparatus essentially similar to that used in varus, but acting in an opposite direction, should be applied (Figs. 12 and 13). A convex pad should also be placed inside the shoe in the normal situation of the arch of the foot. This presses inward and upward, and elevates and supports the arch of the foot. As soon as the child is able to walk, it should be encouraged to do so, for the weight

of the body on the foot assists materially in the removal of the last traces of the deformity.

If the tendons continue rigid, and the distortion is not overcome by the diligent use of plaster-of-Paris splints for three or four weeks, it is then necessary to resort to tenotomy. The peronei tendons only require division in the slighter cases. In more severe cases, it may be necessary also to divide the extensor longus digitorum and peroneus tertius. When the gastrocnemius is tense and unyielding, producing equinovarus, the tendo Achillis should be divided. The rule is to divide the tendons when retraction has not been overcome. The peroneus longus and brevis tendons may be divided one inch above the external malleolus in the following manner: The leg, lying upon the inner side, is firmly held by an assistant with one hand, while the foot is forcibly adducted by the other. You then, with the forefinger of the left hand, feel for the tendons, which you will generally find raised above the level of the fibula; introduce the tenotome flatwise between the bone and the tendons, turn the sharp edge of the knife to the tendons, and divide them transversely. The extensor longus and peroneus tertius should be divided, when necessary, just where they pass over the ankle-joint, in the following manner:

The foot is adducted by an assistant, a puncture is made close to the inner side of the extensor longus, a tenotome is passed beneath the tendons, and they are divided from below upward towards the skin. The tendons are prominent and tense, so that you will have no difficulty in ascertaining that they are completely divided. If it is also necessary to divide the tendons of the anterior tibial and extensor pollicis—and this is sometimes the case in old subjects—the knife can be re-entered at the same puncture, and carried in the opposite direction beneath the tendons, flatwise, and cutting towards the skin. You can then apply a pledget of lint over the puncture, and secure it in position by a strip of adhesive plaster and a bandage around the foot and ankle. The part should at once be put into a plaster-of-Paris or felt splint which has been carefully moulded to the deformed foot before the operation, and kept in this position for three or four days. When all the dressings are removed, the parts well washed, a plaster splint applied in the manner already shown, and the foot forced toward its normal position, this splint should be removed every third or fourth day, at each application bringing the foot nearer to its natural position. When the deformity has been reduced, the foot can be retained in an appropriate club-foot shoe without pain or inconvenience. In some severe cases, it may be necessary to use an apparatus which extends up the thigh, with a free hinge-joint at the knee. It is merely an elongation of the ordinary apparatus, but is more powerful in its action.

The club-foot shoe should be worn during the day for six or twelve months, in order to allow the bones, muscles, and ligaments to adapt themselves to the changed position of the foot. After the removal of the deformity, and to guard against relapse, a retentive apparatus should also be worn at night. This may consist of a lighter metal shoe or of a felt splint.

The physiological treatment is as important here as in varus, and should be practised during the whole course of the treatment, until the functions, as well as the form of the foot, are fully restored.

The tendency to relapse is not so great in valgus as in varus, because it is a less complicated deformity, and it may be prevented by the use of an ordinary shoe. After the club-foot apparatus has been laid



side, which has the heel raised on the inner side, so as to throw the weight on the outer side of the foot, and an elliptic steel plate inserted in the sole of the shoe, for the purpose of sustaining the arch of the foot, this support must be gradually discontinued (Fig. 19).

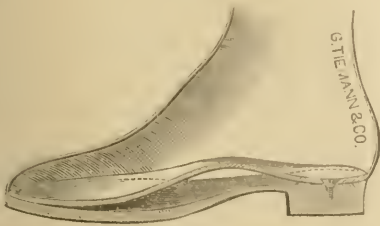


FIG. 19.

The treatment of *non-congenital valgus* is essentially similar, in principles and in detail, to the treatment appropriate to the congenital form. Operative treatment, however, is rarely necessary, the mechanical and physiological means alone being sufficient, in a large majority of cases, to effect a cure.

The next frequent cause of *non-congenital valgus* is general and local debility, producing what is commonly called "flat-foot;" and in these cases the general health should receive careful attention. Fresh air, good food, iron, quinia, etc., should be judiciously used; while, in many cases, the only local treatment required is a properly-constructed valgus shoe, such as I have before described (Fig. 19).

In more severe cases, it may be necessary to carry a steel support from the shoe up the leg on the outer side, to be connected with a plate which surrounds the calf, having a joint at the ankle. This apparatus is sometimes required for many years.

When there is marked eversion of the foot and deviation of the heel, we endeavor to reduce the deformity with the plaster-of-Paris splint in the manner already described, and, when the distortion is overcome, the club-foot shoe already recommended should be applied. When, as in severe and long-standing cases, the deformity cannot be overcome by mechanical means, it may be necessary to divide the tendo Achillis or the extensor and peronei tendons; but tenotomy will seldom be required in non-congenital cases.

Special exercises, frictions, galvanism, etc., are extremely important in this form of club-foot, especially when it has a paralytic origin; indeed the physiological treatment, properly and thoroughly carried out, not only contributes to the cure, but also materially aids in preventing a relapse of the deformity.

**ANTI-CONSTIPATION.**—The following pills are recommended highly for inertia of the intestinal muscular coat, with deficient secretion of intestinal mucus: R. Ext. nucis vom., gr. vj.; ext. belladon., gr. iij.; pulv. ipecac, gr. xij.; ext. colocynth co., gr. xxxvj. M. divid. in pil. xij. Sig.—One at bedtime.

Trousseau recommends a pill of gr. ss. ext. belladon. to be taken at bedtime for constipation, persevering in this treatment for at least a month.

A writer to the *British Medical Journal* advises for the same trouble the following: Put into a basin or bowl two or three tablespoonfuls of Scotch pea-flour, adding some salt. Pour sufficient boiling water thereon to cover the mixture, beating or stirring it into a *paste* as quickly as possible, adding more water if needed. Eat immediately with fresh milk.

## LARYNGEAL PHTHISIS.

A CLINICAL LECTURE DELIVERED AT JEFFERSON MEDICAL COLLEGE HOSPITAL,

By J. SOLIS COHEN, M.D.,

LECTURER ON CLINICAL MEDICINE AND ON LARYNGOLOGY IN JEFFERSON MEDICAL SCHOOL.

(Reported for the Medical Record.)

### FOUR CASES OF THE DISEASE—ITS SYMPTOMS, PATHOLOGY, AND TREATMENT.

I INTEND to show you to-day a group of cases of laryngeal phthisis, a disease of much clinical interest, and to say a few words to you regarding its symptoms, its pathology, its prognosis, and its treatment. I want you to notice particularly the character of the voices of these men and this woman.

**CASE I.**—J. D., aged forty years, was entirely well up to within the last two years. He became hoarse gradually; at present he can only speak in a low whisper. Thinks his trouble dated primarily from an exposure to cold and vicissitudes of weather. His employment was that of a marble cutter, at which trade he had worked for a period of twenty-two years, when he was taken sick. (This is a case of the so-called *stone-cutter's phthisis*, for I have no doubt that the disease was first brought on by the inspiration of the marble dust.) The patient suffers from painful deglutition in the use of all solid articles of food.

**CASE II.**—J. C., nineteen years of age; has the same character of voice as Case I. Is a carpet-weaver by trade. He necessarily breathes in a great deal of dust when at work, and this dust has brought on the lung and laryngeal disease. He has been at this employment for five years. His present trouble first came on in March, 1878. He has no difficulty in swallowing.

**CASE III.**—H., twenty-two years of age, is in the cigar business. The man's trade, in this case, has evidently had nothing to do with the production of the disease. He has been sick since March, 1878. As far as I can gather, there is no family history of phthisis. He can still swallow everything, but has great pain and difficulty in the act. In Cases I and II the voice, though low, was rough; here it is merely muffled. Auscultation and percussion reveal a distinct cavity in the apex of the right lung.

**CASE IV.**—G., thirty-five years of age, is engaged in making neckties (this evidently affords us no clue to the origin of the disease); has been troubled with her throat since May, 1878, and has been decidedly hoarse since July of that same year. There is no history of consumption or of throat disease in her family. Has difficulty in swallowing, especially in swallowing solids.

### THE SYMPTOMS AND PATHOLOGY OF LARYNGEAL PHTHISIS.

The prominent symptoms of this disease are progressive emaciation, change in the character of the voice, more or less difficulty in the act of deglutition, cough, and expectoration. The condition is what I should be safe in calling the chronic laryngitis of phthisis, since it is still a matter of much doubt as to whether there is any such thing as laryngeal phthisis independently of the disease of the lungs. As a general thing, there is found to be more or less disease of the lung tissue in all cases. The disease will be found to have attacked the same side in both the lungs and larynx. Possibly the disease may begin in the larynx. I have, however, never seen a case where there was not, at the same time, more or less implication of the

lung substance, and I believe that where we cannot determine upon the co-existence of lung disease it is only due to the fact that the disease in the lungs is not sufficiently advanced to be detected.

All the cases which I have just shown you are tuberculous. It is still a mooted question as to whether tubercles ever exist in the larynx. Some of the best authorities say that they do, while others, equally reliable, deny it altogether. I have never been able to detect tubercles in the larynx in a post-mortem dissection of the parts. It is possible that they may be there in an early stage of the disease, and that they slough off in later stages. I can now call to mind the case of a sailor who died after an illness of two weeks, and whose lungs, brain, and intestines were full of tubercles. The most careful search, however, failed to detect their presence in his larynx.

Virchow holds that tubercles may and do exist in the larynx, but are so superficial that they are very soon sloughed off and discharged.

Laryngeal phthisis is characterized by an inflammation of the mucous membrane and of great numbers of the follicular glands at the root of the epiglottis, and also in the ventricular bands and over the arytenoid cartilages. A group of glands is inflamed, disintegrates and ulcerates. The process of ulceration joins the glands together, and they are thus found to form a species of racemose ulcer—the so-called *phthisical* ulcer. This ulceration continuing and going deeper, involves the submucous tissues, the muscles, the perichondrium, and finally the cartilage itself, producing perichondritis, chondritis, caries, and finally necrosis.

When you see cases early in the disease, the *first* symptom which will call your attention to the true nature of the malady will be a peculiar pallor of the structures involved (some say that tubercles may be seen in the laryngeal image, but I have never yet been able to find them). The larynx is always pale in this disease. The pharynx is also likely to be pale. This pallor would seem to be only part of a general anemia, but this anemia is always seen first in the larynx. It may be present there while the patient is still rosy and healthy-looking. This pallor is pathognomonic of laryngeal phthisis. Sometimes the palatine folds will seem to the observer to be particularly red by contrast. In Case III. laryngoscopic examination gives a very good representation of granular or tubercular pharyngitis. The same is true in Case No. IV.

The *second* stage of the disease is one of thickening of the tissues, particularly of the ventricular bands and arytenoid cartilages. This thickening is the cause of the difficulty in deglutition. The larynx, you know, is in front of the œsophagus. The food is kept from falling into the larynx by the intervention of the epiglottis. When the parts are thickened and swollen, this action of the epiglottis cannot take place. Owing to this fact, the food, in some cases, in the later stages of the disease may even succeed in getting into the larynx, producing a distressing and violent cough. Then, too, one or other of the arytenoid cartilages may become tumefied. This condition also interferes with the entrance of the food into the œsophagus.

This peculiar swelling of the posterior parts of the larynx points almost conclusively to the existence of laryngeal phthisis. Taken in connection with other symptoms it is pathognomonic.

The *third* stage of the disease is that of ulceration. This ulceration first shows itself in the loose tissues

between the arytenoid cartilages—the so-called arytenoid folds.

I must stop just here for a moment to refresh your knowledge of the anatomy of the larynx and adjacent parts. The vocal cords, as you well know, are attached to the posterior part of the arytenoid cartilages. There is a muscle running across between the arytenoid cartilages which pulls them and so pulls the vocal cords together. This muscle is brought into play when we speak and when it is consequently necessary that the vocal cords should be brought more or less closely together. This apposition of the vocal cords produces the slit through which the air passes to produce the voice. Of course, when the muscle to which I have just referred contracts and brings the vocal cords together, the neighboring mucous membrane is thrown into numerous folds which rub against each other, and when these folds are inflamed this constant attrition of their surfaces brings on ulceration. The ulcers thus formed try to heal, and so become covered with fungous granulations which are often mistaken for morbid growths, and the attempt not infrequently made to tear them away by the laryngeal forceps.

The hoarseness of the voice attending all these cases of laryngeal phthisis is explained by the fact that the vocal cords, when at all thickened, cannot reach the middle line, and hence are not properly adjusted for the production of the normal sounds of the voice. You see, therefore, that the hoarseness is not in any way connected with the ulceration, or brought on by it. The vocal cords may not be, indeed, in the least ulcerated, but they cannot be brought near enough together to produce sound. This fact is explanatory of the occasionally unexpected return of the power of voice without any betterment of the patient's general condition. The thickening of the vocal cords has so far subsided that the voice is no longer hoarse, but the disease has been all the while either progressing, or at least *in statu quo*. The disappearance of the thickening of the cords is accounted for by the momentary absorption of the serum which had disabled the muscle and so prevented the apposition of the cords.

In some cases the inflammation will be found to have extended into the glandular portion of the larynx. Indeed, the inflammation may appear in any portion of the larynx.

Ulceration of the epiglottis is not common except in the last stages of the laryngeal disease. Some authorities hold that there is no such thing as ulceration of the epiglottis in this disease, but I am of the opinion that this latter statement is not founded upon fact. I think that ulceration of the epiglottis may occur towards the end of the regular course pursued by the disease. This clinical fact should always be borne well in mind, because, when the epiglottis is ulcerated, the case may resemble very closely one of syphilitic laryngitis.

The diagnosis between these two diseases is thus drawn. In syphilitic laryngitis the ulceration begins in the palate and pharynx and then affects the epiglottis, *i. e.* it progresses from above downwards, while in the laryngitis of tubercular origin, the ulceration progresses from below upwards, attacking the posterior and lower part of the pharynx first.

In all cases where the disease in the larynx has advanced as far as the stage of ulceration, it will be found, upon examining the lungs carefully, that a cavity exists at some point in the lung substance. This clinical fact has led to the belief that the ulcerative process gradually extends from the lung cavity upwards to the larynx. This theory, in which I, among others, am a firm believer, was first advanced by the



great Louis, of France, who held that the ulceration, and, in fact, the first symptoms of the laryngitis, were produced by the expectoration of phthisical matter from the lungs and its irritating and infectious effect upon the upper air-tubes.

When the vocal cords are attacked by the ulcerative process, which is not a frequent occurrence by any means, there is usually more or less irregularity of the sides of the vocal opening—linear ulcers, in fact, rapidly form. The mucous membrane is attached but loosely to the vocal cords, since after death a probe can very easily be worked between this mucous membrane and the deeper structures.

When the arytenoid cartilages are swollen and thickened, there is usually already a condition of inflammation of the cartilage, or, at least, of its membranes, *i.e.*, of chondritis, or perichondritis. This leads to ossification, caries, necrosis, etc. Abscesses form and break. The cartilages which are most frequently affected are the arytenoid and the cricoid.

Here is a drawing of a specimen where an ulcer of the cricoid was present, a large portion of the tube is occupied, as you see, by the lateral half of the swollen cricoid.

At this stage of the disease, *i.e.*, when ulceration has taken place in the larynx, the patient is likely to suffer very great pain. There is always a greater or less amount of oedema of the parts, and all efforts at swallowing are followed by the escape of food into the larynx, causing spasm of the muscles. If the palate and pharynx are also involved, the spasmodic action of the muscles may drive the food into the nose and ears. The picture of the disease at this point in its progress is a very sad and serious one.

Ordinarily the evidence of laryngeal thickening may be found at any stage of the lung disease; but when the larynx and adjacent parts have gone on to ulceration, a cavity will always be found to exist at some point in the lungs, if the chest be carefully and thoroughly percussed and auscultated. During the early stages of pallor and inflammation, there may be no evidence of a pulmonary cavity.

Curiously enough, some of these associated cases of lung and throat disease last longer, *i.e.*, patients live longer, than in cases of pure, uncomplicated phthisis. Death from phthisis, on an average, occurs at a period of from eighteen months to four years from the inception of the disease, while the course of laryngeal phthisis is usually from four to seven years. The disease in the lungs would seem to be prolonged by the process in the larynx.

In these cases it is also possible to note the extraordinary fact that, if the laryngeal disease is relieved, the lung trouble grows worse, and *vice versa*. Sometimes the condition of throat and lungs grows worse simultaneously; sometimes they both get better.

The prognosis of the disease is always bad. Very few cases are cured. The majority of patients perish in from four to seven years.

#### THE TREATMENT OF LARYNGEAL PHTHISIS.

This brings me to a consideration of the proper treatment of the disease. Treatment is, of course, both local and constitutional. The constitutional treatment is the same as that for pulmonary consumption, and consists of fresh air, good food, freedom from anxiety, cod-liver oil, etc., etc. I need hardly dwell upon its minutiae. Tonics and stimulants should at times be employed, as they become necessary.

A great deal can sometimes be accomplished by means of the local treatment; particularly is this true if the case come to you for treatment in an early stage

of its progress. In some cases, indeed, a complete cure is possible.

The most important, and, at the same time, the first item of the local treatment, is to avoid all local irritation to the parts. If the patient be a stone-cutter or a carpet-weaver, you must insist upon it that he never return to his old occupation. So, too, if the patient be a public speaker, or be obliged to talk very loudly for any great length of time, as, for instance, to a deaf person.

After attending to this cardinal point, there are other matters of almost as great importance to be looked after. When there is a good deal of infiltration and swelling of the larynx, try to promote absorption. If absorption be not secured, and the swelling goes on, it will finally cut off the entire blood supply by choking the blood-vessels, and the parts will die and fall away.

After enjoining absolute silence, try local applications to the part by brush, by inhalation, or by the douche or spray. An excellent solution is formed by the following combination of concentrated carbolic acid and the compound tincture of iodine:

|                         |          |
|-------------------------|----------|
| Acid carb. concent..... | f 3 j.   |
| Tr. iod. comp.....      | f 3 ij.  |
| Aquæ q. s. ad.....      | f 3 iij. |

M.

Signe, f 3 j. three or four times daily by spray or inhalation.

The advantages of the spray are manifold. In the first place, the water cleanses. It is very important that the secretions should be cleared away from the ulcerated surface; otherwise, they will cling to it, decompose and poison the blood. The second advantage of the spray is a mechanical one. The impact of the water on the part, as it is propelled with some violence in the spray, has a much more salubrious effect than when it is simply allowed to run over the surface. It stimulates, perhaps, by its impact, the sluggish capillary circulation.

Then, too, the iodine is an absorbent, and the carbolic acid a disinfectant and an astringent.

When the ulceration begins, you should use mere powerful applications. Here the spray is still useful, for the part should be cleansed at all times before any local application is made. Be cautious, however, after employing the spray, that you do not use any irritating substance. The inclination of an ulcerating surface is not to heal, and an irritant, of course, throws a further obstacle in the way of healing.

Where there are irregular excrescences on the larynx or vocal cords, produced by the ulceration, they should, as a general rule, be allowed to remain, unless they have grown to such a size as to interfere with respiration. If the arytenoid cartilage becomes ulcerated, the demand is for a soothing application, such as a weak solution of aconite in glycerine, or a weak solution of morphia and belladonna. The chloride of zinc, in the form of a weak solution, is an excellent application. The action of this remedy is limited to the points of ulceration. That astringent substance should always be employed which does the least damage to the tissues surrounding the ulcer. The chloride of zinc should be employed in a solution of one part to fifty, or even one hundred.

In the later stages of laryngeal phthisis the nitrate of silver does good; but it must be used without the expectation of its curing. This substance, as it is well known, forms a coating of coagulated albumen over the ulcerated tissue, and so protects it from the air and from the irritation of food. The solution of ni-





fluence of this epoch for good, or overlook the fact that many women pass through the crisis without inconvenience, the other fact still remains, that it is, in a very large number of instances, a period of suffering, danger, and not unfrequently the cause of death.

A lowered state of the vital forces may determine malignant characters in diseases previously benign, which in their turn intensify the general depression and aggravate excessive nervous action, these "morbid exaggerations," which constitute, in a great measure, the general diseases, and the special pathological conditions which constitute local diseases, are to a great extent interdependent and react harmfully one upon the other.

As general measures of treatment, therefore, the importance of husbanding and strengthening the vital forces, and controlling excessive nervous action, should not be overlooked. Exhausting discharges, floodings, leucorrhœa, diarrhœa and hemorrhoids, vomiting, dyspepsia, debility, plethora and chlorosis, ganglionic paralysis, and other morbid manifestations, should receive appropriate treatment, and every advantage, therapeutical and hygienical, given, to build up and strengthen the system against constitutional weaknesses.

Instead, therefore, of regarding the menopause with indifference and pursuing an expectant plan of management, it should be our duty to bring intelligent investigation and sound judgment to bear in diagnosing these cases, and when a cause of peril is discovered, to institute prompt and radical measures of relief.

The details of special medication or of particular operations most appropriate to the various morbid manifestations peculiar to this epoch will not be attempted, as treatment must be based upon general principles; but enough has been said respecting their nature and tendencies to at least indicate the class of remedies that should be selected as most likely to be of advantage.

To return, therefore, to the main premises of these considerations, an attempt will be made to illustrate, as well as possible, with a few cases, 1st, the evil consequences of the neglect of appropriate measures of treatment, and *per contra*, the great advantages to be gained by the adoption of *radical measures* of relief.

Mrs. Jane M. W., aged fifty, and a widow for eighteen years, came under my care during the past summer. She was of sanguine temperament and quite stout, weighing about two hundred and twenty-five pounds. I found her suffering from the consequences of metrorrhagia, or more correctly speaking, at the time of my visit, from the immediate effects of flooding. She gave the following history of her case: Three years before this, her menses began to show signs of irregularity; at first the flow was excessive and frequent, and at later times varied much in respect to time and quantity. At the end of about two and a half years it ceased, and she supposed this to be the last of it. For some time before the flow ceased she had experienced much inconvenience from nervous irritability and depression of spirits, and these symptoms continued and increased considerably in degree during the six months following after the last appearance of the menses. Her appetite and digestion now became poor, and flushes and perspirations frequent and distressing. Her general health had in previous years been good, had suffered from no uterine trouble as far as she could recollect, except at the birth of her last child twenty years before, when there had been some local trouble.

She had always led an active though somewhat

luxurious life, but during the last few years had gradually lost her self-reliance, and at last became unfitted to attend to the ordinary duties of her every-day life.

She had never had an illness of any kind, until the last few years, when she sought medical advice for certain nervous troubles and for a profuse and irritating leucorrhœa. At the end of six months the flow of blood again returned, and this continued at irregular intervals and in varying amount for three months, until, the day before I saw her, it had culminated in a sudden and profuse hemorrhage. This lasted but a few moments, and then spontaneously ceased, but on the following morning the flow recurred again.

At this time, also, the cephalalgia which had previously given her great trouble, came on again in an intense form, to which was added nausea and great prostration of strength.

At my first visit, the usual remedies, constitutional and local, were ordered, and controlled the symptoms at the time, and afterward, for a day or two, whenever they came on.

Very soon another flooding came on, which was with difficulty controlled. Various attempts had been made previous to this to make a thorough vaginal examination, but were not successful, because of the extreme sensitiveness of the parts, which was so great, that even the introduction of pieces of ice were painful; but an examination was now permitted. On introducing the finger into the vagina, it soon came in contact with the cervix, which was hard, nodulated, and so large as to fill up the vagina at the point of its location; the body of the womb, however, as well as could be ascertained, was but slightly enlarged. An examination by speculum confirmed the signs gained by touch, and showed several ulcerated spots upon the cervical enlargements—and the blood passing from the cervical canal; but, as far as could be seen, there was no oozing from the tissues of the cervix. Pledgets of cotton saturated with a solution of persulphate of iron were placed over the cervix, and this controlled the bleeding for thirty-six hours, but it came on again at the end of that time.

The cotton was removed, and about one drachm of a strong solution of persulphate of iron was injected with a long-nozzle syringe against the mouth of the cervix, a few drops, perhaps, entering the canal. The hemorrhage, after this, seemed to have ceased, excepting a slight showing of blood, which still continued. The nausea and vomiting, which before had been bad enough, now became excessive, so that she could retain nothing whatever upon her stomach, medicines and nourishment being given hypodermically and *per rectum*.

At this time the weather became exceedingly hot, and continued so for a week. Simultaneously with the accession of the high temperature, great exhaustion came on, with symptoms of septicæmia, after which consciousness was lost, and death took place at the end of four days.

An autopsy was not permitted, and therefore the special pathological characters of the cervical disease were not ascertained. How long the local disease had existed, I could not learn, but believe it began to assume malignant features during the first year of menstrual irregularity. At the time the disease was recognized, the constitution of the patient had become thoroughly undermined, and this, together with the extreme heat of the weather, forbade radical measures of relief. This case is a fair illustration of the consequences of neglect. The patient had paid no especial attention to her earlier symptoms, believing they

should be attributed to the change of life, and therefore of no consequence.

The next case is that of Sarah I., a colored woman, 50 years of age, married, and the mother of several children. The history is as follows:

She began to menstruate quite early, and this continued regularly, except during pregnancy, until about the forty-fifth year, when she first noticed irregularity. An enlargement of the uterus had been present, she thought, for about six or eight years, but until the last three years it had given her no trouble. About her forty-eighth year, the menses ceased, and at this time she became conscious that the tumor was enlarging, and was much annoyed by violent bearing-down pains, or cramps, as she called them. She also frequently suffered from exacerbations of fever at that time, but could not learn its type. These symptoms continued about the same to within a few months before I saw her, when the flow of blood again appeared, at first intermittently, and afterward continuously. Upon examination, a submucous fibroid was discovered in the body of the uterus about the size of an orange.

The operation of incision was advised, but was not accepted. About this time, 1876, I gave up the case, owing to removal, but have since learned that, after lingering for a short time longer, she finally died of exhaustion.

She had been a woman of robust constitution, and was a favorable case for that operation; but she refused such treatment from prejudice and the mistaken advice of other persons. In this instance the fibroid had remained quiescent for several years without giving trouble, and in no way injuring her general health; but when the change of life began, the tumor became excited into activity, continued to increase, and after cessation, took on malignant characters. Other cases might be cited, but these must suffice to show the unfavorable influence of the menopause, and the malignant character which benign disease may assume when left to pursue an uninterrupted course.

The advantage to be gained by the observation of radical measures of treatment may, perhaps, be estimated by the succeeding cases, which will be given as briefly as possible.

I have given an account of the following case elsewhere—where it was considered only in respect to a question of differential diagnosis; but being a convenient and good illustration of the entire matter in hand, it may not be inappropriately referred to here.

This is the case:

Mrs. S. P., a tall, thin brunette, forty-nine years of age, and a widow for some years, was the mother of several children, the last of which she had borne twenty years before. She had never had an abortion, and had usually enjoyed good health, with the exception of occasional attacks of dyspepsia and intermittent fever.

Her menses first appeared at the age of fifteen, and until the beginning of her present sickness she never had, as far as she could recollect, any uterine trouble.

According to her statement, her present illness began some two years before, and was brought on suddenly from having attempted to lift some heavy article of furniture. She was immediately attacked with hemorrhage from the vagina, pain in the loins and back, weight and dragging in the pelvis, nausea and great prostration—in short, by such symptoms as usually accompany a sudden displacement of some portion of the pelvic viscera.

She was compelled to take to her bed at once, and

her family physician, who attended her, pronounced her case to be a form of uterine displacement, the exact nature of which I could not ascertain from her. Neither could I learn what treatment had been employed other than that she had been kept in bed for three weeks, and that pessaries had been worn for some time after. At the end of a month the acute symptoms had subsided, and soon after she was sufficiently recovered to attend to the ordinary duties of her household.

Her general health had received a severe shock, and nervous symptoms soon came on, such as severe and continued headache and great irritability of temper. The menses, which previous to the attack had been regular, sufficient in amount, and without pain, had now become irregular, in respect to both time and quantity, and were always painful. There had been a considerable sanguino-purulent discharge at the beginning of her attack, which continued as a thin, irritating leucorrhœa.

There had been considerable difficulty in defecation and some dysuria, until the pessaries which she had worn successively were abandoned, and all efforts at supporting treatment were discontinued.

At the end of six months her general condition had not improved.

It seems at this time her physician told her that she was passing through the climacteric period or change of life, and counselled her to be patient and endure her ills with as much fortitude as she could command, in hope of permanent relief when cessation should come. As a consequence of this advice, and from a mistaken impression on her part, and that of her friends, that no good would result from active medical treatment under such conditions, she received but little attention for months. Cessation did not come, and despairing of relief from natural causes, (?) she again sought medical advice. At this time, some two months before I saw her, the menstrual periods had ceased to be distinct, the flow had become continuous. She was examined, and her case this time pronounced prolapsus uteri. The prolapsus, she was told, had then been reduced.

In spite of the reduction and constitutional treatment, such as large doses of tinct. ferri chlor., tinct. cannabis indicæ, gallic acid, etc., and tonic treatment in general, the flow continued and her debility increased.

To such an extent had this state of affairs reduced her, that she presented, at my first visit, an almost exsanguinated appearance, and was so weak as scarcely to be able to move from her chair to the bed.

A careful investigation proved the cause of trouble to be a large hollow polypus of the womb, and although the discharge of sanguino-purulent matter and continued hemorrhage had induced great exhaustion, no inflammatory reaction or other evil consequences occurred after the operation removing the polypus, and the patient quickly recovered her strength, and gained an extraordinary degree of health.

We have in this case both an example of the dangers of a blind faith in the curative influence of the menopause, and an instance of the good effects of radical measures of treatment.

Thus far organic diseases of the uterus only have been cited, but other organs are likewise subject to the influence of this epoch. Among these the mammae are next most frequently affected, and the last case will be considered in that connection.

Mrs. Evalina K., a widow, 48 years of age, and the mother of several children, came under my care in the



spring of 1876. An account of the case, up to that time, is as follows:

Fifteen years before, while in the enjoyment of usual health, she discovered a tumor about the size of a pea in her right breast, and, as I take it, clear of the mammary gland, and situated to the outer and under part of the breast. It gave her no pain, and she paid no attention to it for five years, but about that time it became painful, and she noticed that it was growing larger. During the next three years, its growth was very slow, and in 1870 it had become as large as a walnut, and occasionally gave her much discomfort.

In 1872, instead of being smooth and round, it seemed to have increased by the addition of other growths immediately upon the surface, which gave a feeling of lumpiness to the touch. The tumor soon became the size of a large orange, and the pain at times was of a lancinating character, and at others like a throbbing toothache. She now became thoroughly alarmed, and sought medical advice. She was told that the disease was cancerous, and if removed would probably return again. For this and other reasons, it was allowed to remain undisturbed. This state of affairs remained pretty much the same until the latter part of 1873, when it took an increased activity, and grew rapidly. Her menses, which began early in life, had during the previous eighteen months been very irregular, and at this time ceased. She was then in her forty-fifth year, and it proved her final menstruation. After this for two years it continued to grow, by the development of other bodies which seemed to spring from the surface, and in the winter of 1875 had reached the dimensions of an adult head. The pain in the part was severe, and her strength and health began to give way. In the spring of 1876, the integuments, which thus far had remained intact, began to ulcerate at the part where the tumor was first discovered, and within a month had become deep, as large as a man's hand, and was discharging very offensive matter. Her condition was now truly deplorable; she was weak and emaciated from the constant drain upon her system, by the discharges from the tumor and from a diarrhoea which had recently come on, and it was evident she could not long survive this condition, particularly in view of the approaching semi-tropical summer. Having instituted a careful examination of the tumor, of her constitution, and family history, for signs and evidences of cancer, and finding nothing specific, it was diagnosed a malignant non-cancerous growth.

A few days after, on May 17th, the tumor was removed, and within three weeks the parts were entirely healed. The patient made a rapid recovery, and when I again saw her, nineteen months later, she was in the enjoyment of good health. Ten months more have now passed—in all, twenty-nine months—and when last heard from, a few months since, she was still in sound health, with no signs of return of the disease, at its original seat or elsewhere in the body.

A study of the pathological characters of this tumor would perhaps be instructive, but it must suffice here to state that none of the specific signs of cancer were found, and that it belonged to that class of growths considered benign, and denominated fibro-cystic. An idea of the solid nature of the tumor may be formed from the fact that it weighed, after all fluid had been drained off, six pounds fourteen ounces avordupois.

This case is an unquestionable illustration of the influence of the menopause in causing malignant development in a previously innocent growth. It

shows the necessity of careful inquiry into diseases occurring in such parts, and proves that vital energy and life-force, under such circumstances, is not lost, but only latent and oppressed.

Other cases should perhaps be added, to show more conclusively that the dangers of inflammation and exhaustion have been exaggerated, and to prove the value of radical measures of treatment, but these are sufficient, I trust, to make clear the main points of these considerations. In view of the length of this paper, the following conclusions are offered:

1. That the time of the menopause, as regards the inception and aggravation of disease, is at least of equal importance with that of puberty, or any other epoch of life.

2. That while, as a rule, the majority of functional and organic diseases of the female generative organs, decrease in intensity subsequent to the menopause, still there are a very considerable proportion of cases in which the opposite takes place, even to the extent of benign diseases becoming malignant.

3. That in a good many instances these latter cases do not necessarily present decided local symptoms of the actual pathological conditions present, but are indicated by general signs, which usually attract attention, chiefly because occurring at that particular time of life.

4. That in no case of general or local disorder, occurring just prior to or during the menopause, should a local examination be omitted, which will frequently reveal at a glance the origin of the hitherto inexplicable phenomena, and also indicate the therapeutics.

5. That such therapeutical measures should be radical and effective, quite regardless of this particular time of life, the dangers of operating during which have undoubtedly been exaggerated.

I am fully conscious of many omissions in these considerations, but will feel satisfied if I shall succeed in recalling attention to the importance of the menopause as a critical event, and to the frequently great advantages of radical measures of treatment in local disease.

## Reports of Hospitals.

### PRESBYTERIAN HOSPITAL IN THE CITY OF NEW YORK, AND HOSPITAL DEPARTMENT OF COLORED HOME, NEW YORK.

#### FOUR CASES OF LUMBO-COLOTOMY.

SERVICE OF DR. CHARLES K. BRIDGON.

THE operations of Volckmann and others have given an impulse to the surgery of the rectum that would seem only to be limited by the extent of that portion of the alimentary canal to which the term applies. Indeed the Germans have not restricted themselves to the terminal division, but have attacked, through abdominal incision, the colon itself.

Thiersch and Schede have both made resections of the large intestine; and Gussenbauer, of Lüttich, has also resected the colon descendens. It is doubtful if they have found any imitators in Great Britain; at all events we have no reports of such operations; and Curling, who may be regarded as the exponent of opinion amongst English surgeons, limits excision to cases of epithelial cancer invading the anus and its

immediate neighborhood, and remarks, in his last edition of *Diseases of the Rectum*: "I am unwilling to discourage any attempts to cure or relieve so dire a disease as cancer of the rectum by excision; but knowing the danger which must be incurred from hemorrhage in the operation, the misery likely to ensue from incontinency of feces and from contraction in the wound, if healing takes place, as well as the prospect of an early return of the disease, I cannot think that the chance even of a prolongation of life is worth acceptance on the terms offered by such an operation, and I hold that much more is to be gained, with less risk to life, by another proceeding, viz., lumbar-colotomy, which is applicable also to cases in which excision would be impossible."

The class of cases in which extirpation must be rejected are numerous; carcinoma, where the disease has passed beyond the limits of the knife; stenosis from cicatrization of chancre, and alterations produced by the later manifestations of syphilis, in such when the obstruction has failed to yield to the patient application of mechanical dilatation, assisted, if needs be, by single or multiple incision, we are only able to mitigate the suffering, and retard the progress of the disease by the establishment of an outlet above the obstruction. The operation of lumbo-colotomy has secured its claims as a proper proceeding in the class of cases referred to, and we give the details of four cases occurring in the Presbyterian Hospital and in the hospital department of the Colored Home.

**CASE I.**—Reported by Dr. W. H. Gerrish.—Hannah Holdsworth, *et.* 28, native of Germany, married, actress, was admitted to the Presbyterian Hospital in the city of New York—service of Dr. Charles K. Bridgdon—July 31, 1876.

*Previous history.*—Mother died of carcinoma uteri; father's history unknown; began to menstruate at thirteen years; married four years; had an attack of acute rheumatism three years ago. Her present illness began two years ago with constipation, which gradually increased, and was accompanied with tenesmus, severe bearing-down pains, and muco-purulent discharge.

*Present condition.*—Patient is anæmic and emaciated, has very frequent desire to evacuate the contents of the rectum, pains in the sacrum, radiating down the thighs and into the vulva; she is also tormented with vesical tenesmus; has a considerable discharge of blood and pus from the bowels. Examination with the finger reveals a tight annular constriction one and a half inches above the sphincter, which barely admitted the point of the little finger; mucous membrane below the occlusion ulcerated, and the recto-vaginal septum considerably thickened.

Treatment consisted in the use of demulcent and anodyne injections, and dilatation by conical bougies; these means were continued for six weeks, but were interrupted by the frequent formation of vulvar abscesses, which degenerated into fistulous tracks.

In September the operation of rectotomy was performed, and a large-sized bougie was introduced. In the performance of this operation a large post-rectal abscess was opened, and the relief afforded by giving free vent to this was marked. Bougies were steadily used until near the end of the month, when she had a severe attack of acute rheumatism, and her sufferings at that time were of so grave a character that local treatment had to be discontinued. When she had recovered from this complication, the stricture was found as before the operation; the evidences of dilatation and ulceration of the bowels above the constrict-

tion were unmistakable—constant discharge of blood and pus, and escape of flatus through the labial fistulae; the tenesmus had increased in severity, and she only procured a few hours' sleep at night when under the influence of large doses of morphia; she also had a more or less constant elevation of temperature, ranging in the evening sometimes as high as 104°.

December 11th.—Lumbo-colotomy was performed by transverse incision, between lower rib and crest of ilium, centre of incision being half an inch behind centre of crest of ilium.

The relief afforded in this case was of a most satisfactory character; for a time she was troubled by feces entering the canal below the artificial opening, and the discharge of pus from the anus persisted. This, however, was treated by washing out the lower colon every day, and it soon ceased to be a source of annoyance. She had very good control over her evacuations, wearing nothing but a pad of folded cloth, supported by an abdominal belt, and she was discharged cured and in robust health on the 9th of February.

Six months after this patient presented herself for examination. She is entirely free from all her old ailments; labial sinuses are healed. Stricture in rectum is dilated so as to admit the index-finger with ease; her appearance is that of a healthy woman; on introducing a finger into the artificial anus it is distinctly grasped as by a sphincter, and at the lower margin of the outlet was accidentally discovered an opening leading into the distal extremity of the gut; but it was effectually cut off from the canal above by a valve-like covering of mucous membrane.

**CASE II.**—Reported by Dr. W. H. Gerrish, Sen. Assistant Surgeon Presbyterian Hospital in the City of New York.—Kate O'Gorman, *et.* 30, native of Ireland, admitted Oct. 21, 1878. Patient is a married woman, of fine physique, though she has lost forty-eight pounds during the past three months. She is the mother of five children. She relates a history of two members of her family having succumbed to phthisis, but is not aware of any having suffered from cancer. Last April she began to suffer from backache; the pain centred in the sacrum became continuous, increased in severity, and after a time radiated in various directions. It became so severe at last that she became worn out from loss of sleep. It was of a burning, lancinating character, and was not assuaged by any of the various means used for that purpose. Three months ago she first noticed a discharge, which has gone on increasing up to the present time—at first purulent, subsequently it became mixed with blood, and now is an ichorous offensive discharge, considerable in quantity, and so acrid in character as to chafe adjacent parts.

The finger introduced into the rectum finds evidence of very extensive disease; at a short distance from the anus the walls are indurated, ulcerated, irregularly nodose; below there is no contraction, but as the finger passes upwards the calibre diminishes until, at a distance of about five inches, a point is reached that will not admit the point of the index: the gut is fixed more especially anteriorly, where the vaginal portion of the septum is involved; the cul-de-sac of Douglass is contracted and appears with the post-lip of the uterus to be drawn to a common centre, situate at the junction of the uterus vagina and rectum. All these parts appear to be incorporated with the infiltration that pervades the part and fixes its position.

Diagnosis is undoubtedly carcinoma. The patient was sent in for the purpose of being submitted to an operation for extirpation, but the disease has advanced so far as to render that impracticable, and the estab-



lishment of an artificial opening in the loin was considered to be the means most likely to retard the growth of the disease and afford some relief to the state of constant suffering.

After preliminary clearing of the bowels, and whilst under the influence of ether, the operation of lumbo-colotomy was done by Dr. Briddon on the 26th. An extreme deposit of fat rendered it somewhat difficult to define the superficial landmarks with accuracy; but a point was determined, half an inch behind the centre of the crest of the ilium, and marked by the introduction of a black pin through a small fold of skin; a transverse incision was made, five inches in length, between the last rib and the crest, the centre of which was opposite the pin. This was carried through a considerable thickness of fat down to the lumbar fascia. On division of this stricture, the erector spine, quadratus lumborum, and muscles forming the abdominal wall came into view; these latter were divided to the extent of an inch, an incision was made into the deep abdominal fascia, when a portion of the fat which forms the bed in which the intestine lies bulged into the wound; this was in such excess as to cause some delay, and, in fact, it was necessary to dissect some of it away. On inflating through the anus with atmospheric air, the gut rose through the wound, presenting its longitudinal bands with unusual distinctness, it was transfixed with ligatures, which were united to the adjacent integument. The gut was opened by a vertical incision about an inch in length, and was accurately adjusted by a number of fine sutures.

The result in this case was extremely gratifying; in nearly the whole extent of the wound healing took place "per primum intentionem." The patient was at once relieved of the severe and continuous back-ache. On the third day after the operation she had a well-formed stool, and subsequently she had one or two every day, and has enough control to enable her to retain the contents of the bowels fifteen or twenty minutes after the desire to evacuate first expresses itself; and she was discharged, twenty days after the operation, entirely relieved of pain and with wound soundly healed.

**CASE III.**—Reported by Dr. W. H. Gerrish, Sen. Asst. Surg. to Presbyterian Hospital in the City of New York.—Mary I. Wright, æt. 25, native of Rhode Island, married, housewife—admitted to service of Dr. Charles K. Briddon, Nov. 4, 1878.

**Family History.**—Father and mother both died when young, the former of phthisis. She lost one sister, who died after an attack of apoplexy.

**Previous History.**—Patient has always been delicate; when young had scrofulous swellings of the neck, and has been subject to coughs, colds, and pleuritic affections. After the premature birth of a child, twelve years ago, she first began to be troubled with constipation, which gradually increased in severity, until at last each action of the bowels was associated with violent tenseness, and followed by long-persistent aching pain. Four years ago she was examined by a physician, and pronounced to have stricture of the rectum.

Eleven months ago she was confined at term; labor was very tedious, and was terminated by application of the forceps; in the delivery of this child the perineum was ruptured through into the rectum. Her condition now was very distressing. She had complete incontinence of feces, and an operation done for restoration of the perineum failed entirely.

Present condition is truly deplorable; patient looks like a woman worn out with suffering; she is anæmic,

but not very much emaciated; her buttocks are smeared with feces, which the most frequent cleansing will not prevent; she has no perineum, and a tight constriction, two inches up the rectum, through which it is impossible to introduce an instrument.

She was advised to submit to the operation for establishment of an artificial anus in the loin. She joyfully accepted anything at all likely to ameliorate her very disgusting infirmity, and the operation was performed on the ninth day of November. Patient rallied well; had a comfortable night; on the second day she had a small discharge from the lower bowel, and a muco-purulent discharge from the new outlet; third day the fine sutures were removed, perfect union having taken place at all points. This union was subsequently partly broken up by a small abscess which formed in the deeper recesses of the wound, but it scarcely interfered with the recovery of the patient, which was prompt and complete. She has very considerable control over the evacuations, which amount to two or three a day, and she can retain them about five minutes after the desire is felt.

**CASE IV.** was reported in Proceedings of New York Pathological Society, MED. RECORD, 497, by Dr. F. E. Russell, House Physician to the Colored Home.

Patient entered that institution (service of Dr. Briddon) August 5, 1878. She was thirty years old, brown skinned, a widow, with four children, and was saturated with syphilis. She had suffered for some time with the usual symptoms of stricture of the rectum; her perineum was riddled with fistule; the lower end of the gut was ulcerated; and two and a half inches above the anus was a stricture which just admitted the point of the index-finger.

After admission she had several dangerous attacks of obstruction, and it was considered best to make an outlet in the left loin.

Operation of lumbo-colotomy was performed Oct. 24th, in the presence of Prof. Alf. C. Post, Drs. Joseph W. Howe, Geo. F. Shrady, and others, and nothing unusual was observed during the operation—in fact, it was remarked that it was unusually free from hitches of any kind.

The first thing that was remarked afterwards was that the discharges from the opening were not at all formed, but thin and irritating—so much so, that the integuments around the wound were red and raw. About the sixth day symptoms of asthenia began to develop, and the patient died on the eleventh day.

At the autopsy made by Dr. Russell, a loop of small intestine, six and a half feet, from the pyloric extremity of the stomach, was found united to the external wound; the descending colon, from the splenic flexure to its termination in the rectum, was found contracted to about the size of the index-finger. Above the flexure it was dilated; it was entirely under cover of the quadratus lumborum muscle, lying within its external border.

The specimen presented to the Society proved that, at the time the deep lumbar fascia was incised, the peritoneum had bulged into the wound like a hernial sac, with a loop of intestine within it. At the moment it presented, of course it was covered by its proper investment, the subserous areolar tissue, and it resembled the posterior wall of the colon so closely that no one had the slightest suspicion that it was anything else.

**QUINIA TO PREVENT SURGICAL SHOCK.**—Dr. Hunter Maguire, of Richmond, Va., and one of the editors of the *Ohio Medical and Surgical Reporter*, have tried the effects of quinine to cinchonism in warding off shock in surgical operations, and thus far with success.

## Progress of Medical Science.

**THE SENILE CHANGES IN THE JOINTS AND THEIR CONNECTION WITH ARTHRITIS DEFORMANS.**—Dr. Weichselbaum has had opportunities of studying senile changes in the joints in a very large number of cases (nearly 1,000), and he embodies the results of his studies in a paper with the above title. In normal joints he has always been able, by means of different methods of examination, to demonstrate the existence of an endothelium on the inner surface of the synovialis. At the borders of the synovial membrane angular cells, provided with processes, are found which gradually pass over into cartilage cells. He discards the silver method because of its uncertainty. He agrees with previous observers in the opinion that the basement substance of the articular cartilage is composed of exceedingly delicate fibres bound together so closely by a cement substance that they give the optical impression of a homogeneous and structureless tissue.

The senile changes affect all the constituents of the joints. The grosser changes of the cartilages are fibrillation and the formation of fissures, with the consequent development of defects (ulcers, abrasions); also atrophy and alteration of the color to a gray or grayish yellow. The ulcers may heal at any stage, being filled up either by a cartilage-like tissue or by proliferations from the synovial membrane, or from the connective tissue of the Haversian canals. The changes in the synovial membrane are either of a progressive or a regressive nature; to the former belong growth of the cells in the proliferating zone and increase of the synovial folds; to the latter, fibrillation of the membrane and of the subjacent capsule, ligaments, and tendons. Histologically, the fibrillation of the cartilages is characterized in the first stage by the appearance of lines of cleavage, due to destruction of the cement substance, whereupon the cartilage cells begin to proliferate. This process may also begin in the deeper parts of the cartilage. The resorption of cartilage is brought about, like that of bones, through the agency of young, sometimes polynuclear cells, provided with processes, which are developed from the proliferation-cells of the synovialis, and to which Dr. Weichselbaum gives the name "chondroclasts." Even in youthful individuals the borders of the cartilage under physiological conditions are resorbed by these chondroclasts, to be subsequently entirely or partially replaced by newly-formed cartilage. The senile changes of the cells of the cartilage consist in fatty and amyloid degeneration, and a deposit of the phosphate and carbonate of lime in them. This deposit also occurs in the matrix. Among the senile changes of the synovialis and fibrous parts of the joint, the author lays special stress on the growth of the proliferation-cells, the amyloid degeneration of the cells and the matrix, the increase in the number of the synovial folds, the fatty degeneration of the endothelial cells, etc. The changes in the bony parts of the joint consist in regressive atrophy of the osseous tissue, and progressive processes of growth in the medulla and periosteum, with or without consecutive new growth of bone.

In conclusion, Dr. Weichselbaum maintains that there is an intimate connection between the senile changes of the joints and arthritis deformans, the latter presenting merely a more advanced grade of the former. In the poliarticular arthritis deformans the proliferating processes in the synovialis, the develop-

ment of chondroclasts, and the resorption of the cartilage dependent thereon predominate, while in the monoarticular form the other senile changes (fibrillation of the cartilage and fibrous parts of the joint, new growths of cartilaginous and bony tissue on the borders of the articular surfaces and in the capsule, combined with atrophy of the cartilage and bone in other parts) take the upper hand.—*Allg. Med. Cent. Zeit.*, No. 39, 1878.

**BALSAMUM ANTARTHRITICUM INDICUM.**—Dr. von Hölder, of Stuttgart, reports the results of his experiments with this substance, which is the juice of a tropical tree probably belonging to the leguminous family. The natives of the countries where the tree is indigenous, obtain the juice by boring holes in the larger branches. They employ it by inunction over the entire body, to harden the skin against the injurious action of dampness and of sudden changes in temperature, and also to relieve rheumatic pains. The juice is of the consistency of syrup, is cloudy, of a light-brown color, and has a peculiar, offensive odor, which becomes more marked during friction. It contains a good deal of gum, which can be removed by boiling and filtering, without essentially weakening its action or destroying its odor.

In the treatment of both acute and chronic muscular rheumatism, Dr. von Hölder has found the new balsam to be particularly valuable, and he gives it the preference in those affections over all other external remedies. In mild cases a few inunctions are sufficient to relieve the pains. In acute articular rheumatism he has employed the inunctions as an adjuvant to the salicylic acid treatment, and is convinced that they materially hasten the disappearance of the painful stiffness of the joints, which persists for some time after the cessation of the acute symptoms. In chronic articular rheumatism and arthritis deformans the action of the balsam is naturally less striking; but he is convinced that it is in both, but especially the latter, a valuable addition to a well-directed course of massage. In the beginning of attacks of gout it has proved as useless as all other external remedies, but when the inflammatory redness and pain of the joint have begun to diminish, the inunctions undoubtedly hasten the re-establishment of the normal condition. As a rule, two or three inunctions daily are sufficient, and only a small quantity, about half a teaspoonful, of the balsam should be used each time. It has not been employed internally.—*Berl. klin. Wochen.*, No. 26, 1878.

**TREATMENT OF FACIAL NEURALGIA BY ACONITINE.**—Prof. Gubler states that he has never met with a case of neuralgia of the fifth nerve, even tic-douloureux, which failed to yield to aconitine. A man on whom Nelaton had performed the operation of resection of the nerve for violent neuralgia, with only temporary improvement, was entirely cured by aconitine, of which he took  $\frac{1}{4}$  of a grain (0.005). Hottot's preparation of the nitrate of aconitine is the best to use; the dose is  $\frac{1}{16}$  of a grain ( $\frac{1}{2}$  milligramme), which contains  $\frac{1}{32}$  of a grain of aconitine. When this quantity fails to produce the effect desired, the doses may be increased, up to  $\frac{1}{8}$  grain (0.006). Heart disease absolutely counter-indicates the drug.—*Med. Chir. Rundschau*, August, 1878.

**PORPHYRIZED IRON.**—This is prepared by M. Cabrol, of Paris, by mixing pure metallic iron (oxide) with cane sugar. It is claimed to be superior to the "dialized" iron.



# THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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## PAY PATIENTS IN HOSPITALS.

For many years the British medical press has been agitating the feasibility of establishing departments in hospitals for patients of the middle class who are able to pay for board and attendance, but who are too poor to secure, in connection with medical services, such advantages at their homes. Being a new proposition, there was considerable opposition to it, principally on the score that it interfered with the interests of the general practitioner, and militated against the true objects of the hospitals in general. The prejudices against the movement have gradually given way before discussion, and we now learn that the experiment is about to be tried in connection with St. Thomas's Hospital, London.

On general principles, and when viewed from the standpoint taken by the *Lancet*, viz., that none but worthy persons shall be admitted, the scheme is a praiseworthy one and deserves every encouragement, not only from the managers of the charity in question, but from the medical profession at large. Our experience in this country has shown us, however, that the system is liable to great abuses, and is very justly a cause for complaint with the general practitioner. There are a number of so-called pay hospitals in this and other cities in which the admission of pauper patients is the exception rather than the rule, and in which the pay system has been tried with a thoroughness that may give some value to the experiences connected with it.

So long as there is a guarantee on the part of the management that the number of pay patients admitted shall be strictly limited to those who are able to pay for hospital accommodation, and nothing more, the case is simple enough, and there is no reason for criticism. Generally, however, the temptation is to make the inmates pay the running expenses of the institution, and too often patients are admitted who are able not only to pay well for accommodations—nurs-

ing, etc.—but for medical advice besides. Some of the private wards are elegantly fitted up, and charged for at the rate of fifty dollars weekly, while medical attendance is expected to be rendered gratis by the attending staff. Such institutions are managed on the boarding-house principle, and no particular pains are taken to ascertain whether the patients, outside of their ability to pay their board bills, are worthy objects of the hospital advantages or not.

We have always held that the medical profession is too poorly paid, and that it more than gives its quota to the poor and suffering. While the latter is its glorious privilege, no corporation of laymen should take advantage of it. As it is easier to prevent than to cure, it may be proper for us to impress upon our transatlantic brethren, on the eve of their experiment, the necessity of guarding against the abuse in question by a suitable supervision of patients before entrance. In some of the hospitals, it is true, the attending physician or surgeon is allowed to charge well-to-do patients for his services. This is eminently just not only to the patient, but to the hospital and to the medical attendant. The latter is understood to give his services to the poor only, or to such as are able to pay a nominal board. But, as we have before remarked, the temptation is very great to ignore the claims of the profession regarding extra fees in the desire to increase the number of paying patients. At least, it is quite the exception for managers to actively defend the pecuniary claims of the profession. In fact, if it were not for the care which college professors take in excluding unworthy persons from the gratuitous advantages of their public clinics, the profession might actually suffer from a wholesale abuse of medical charity.

Our British *confrères* have anticipated this and kindred possibilities by suggesting that all applicants for admission in the pay department shall be passed upon by the examining physician, and if found competent to pay for medical advice outside, shall be refused. Except with the private cases sent specially to the hospital by members of the staff, and in which special pecuniary conditions are made beforehand, this plan of rejection of wealthy applicants is to be commended. Then no advantage can be taken, after entering the hospital, either by underbidding valuable medical service or by not considering them at all. When such cases are admitted, by accident or design, the only way to remedy the difficulty is for the member of the staff who may be on duty at the time to refuse gratuitous attendance. Under such circumstances as those to which allusion has been made we cannot doubt that the establishment of wards or hospitals for paying patients would be beneficial to the patients themselves, to the hospitals, and last, and of course least, to the medical profession. At all events we are quite anxious to see the experiment tried from that standpoint of British precaution which is taken against present and prospective abuses.

## ADULT MEDICAL EDUCATION.

THE suggestions of Prof. Thomson, in his address before the Academy of Medicine regarding the necessity of adult medical education in this country, are worthy of serious consideration. In truth, there are no arrangements by which medical teaching can be given to practitioners such as is freely offered in Great Britain or the Continent. The question which we should seriously ask ourselves is, whether it is not time that a proper initiative should be taken and some suitable place selected for the delivery of lectures on special subjects by experts. There is no doubt that such courses would be popular with the profession, and would entirely replace the attendance upon medical lectures in our colleges, which seems to be the only resource at present for the practitioner who wishes to brush up his knowledge. The experiment deserves a trial, and the Academy could not do a wiser or better thing than take the matter seriously in hand. The worthy president of that organization is keenly alive to the true interests of the profession in this city, and needs no hint to point out the best course to be pursued.

## THE INCREASE IN THE SIZE OF THE MEDICAL RECORD FOR THE COMING YEAR.

It is gratifying to be able to state to our subscribers that the RECORD is again to be enlarged by the addition of two hundred pages during the coming year. This increase in size is warranted not only by the expansion of our subscription list, but by that of our advertising patronage. The latter has grown to such dimensions as to give rise to the suspicion that the body of the journal was sacrificed for the sake of the outside sheets. Far from this being the case, the RECORD contained two hundred pages more of reading matter than the year previous, and during that time there have been two volumes instead of one. With a still further increase in size during the coming year we shall endeavor to make the contents still more varied and valuable for the general practitioner. This change will also relieve the crowded state of our columns, will enable us to publish longer articles, give more space for society proceedings, reports of hospital practice, progress of medical science, and lastly, professional correspondence on topics of current medical interest. With these increased facilities for extending the usefulness of the journal we enter upon the duties of the forthcoming year with no vain hope for a continuation of success.

## YELLOW-FEVER FUND.

From a note on another page it will be seen that the Hon. William M. Evarts, Secretary of State, has given \$250 from the unappropriated balance in his hands to this fund. The Chamber of Commerce of the City of New York has given \$2,000, and the Mayor of the

city of New York, \$179.46. The sum total at the disposal of the Medical Society of the County of New York is about \$5,250.

It is a matter of conscience and of considerable anxiety with the committee to distribute this sum promptly and wisely. It is in communication with New Orleans, Memphis, Chicago, Columbus, Ohio, and Cincinnati, and other places. Among the suggestions that have been made, are that one-half of the sum should go to the families of the Northern volunteer physicians who have died of yellow fever. New Orleans, Memphis, Vicksburg, Grenada, Holly Springs, Chattanooga, and other smaller places in the South have valid claims. The committee will gladly receive suggestions from all quarters, and it is hoped that those physicians who are personally acquainted with the wants of the suffering families will promptly report to the Record, or to the Chairman of the Committee, Dr. John C. Peters.

## Reports of Societies.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, November 7, 1878.*

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

## THE RADICAL TREATMENT OF LOCAL DISEASE AT THE MENOPAUSE.

DR. SUSSDORFF read a paper upon the above subject (see p. 486). The paper being before the Academy for discussion.

DR. CARO remarked, while he did not deny that many diseases were aggravated at the menopause, he did not regard that period in the life of the female as the real source of so many diseases as presented by the author of the paper.

While he admitted that the two periods, puberty and the period of "change of life," not only in females but in males, were very important, and important diseases were developed at those times, yet he thought it was too frequently the case that they were regarded as the causes of the condition into which a boy or girl had fallen, when in reality the presence of the disease was merely a coincidence.

At the age of forty in man important changes occurred, and if analogous conditions were developed in a woman at about that period in life, it was very commonly said it depended upon the menopause. If a disease already existed, it might grow worse at the menopause, but he believed that the aggravation came not from the cessation of the monthly period so much as from the advancement of age.

Two cases were reported in which urgent symptoms of disease entirely disappeared at the occurrence of the menopause. The first case was that of a woman, who had from the beginning of the period of puberty suffered every month from an attack of acute nephritis, which disturbed the general system to such an extent that for more than a week at each menstruation she was obliged to remain in bed. It was supposed that at the menopause the trouble would increase, and soon prove fatal: but at the end of thirteen years, after the cessation of the menses, the woman



was alive, and had no trouble whatever from the kidney affection.

The second case was that of a woman who suffered from extreme loss of blood at each menstrual period. It was necessary to resort to the most active measures allowable to restrain the flow, so that her strength could be maintained. When the menopause came the patient regained her full strength and health.

Dr. Caro thought the reason why writers had not said more concerning diseases of the menopause was because they entertained an opinion like his own, that they were diseases which disappeared as age advanced, consequently "change of life" should not be regarded as their cause. It was well known that crises occurred in life, but the doctor thought they were not due so much to cessation of monthly sickness as to the advancement of age.

Dr. H. T. HANKS regarded it as important to teach patients the necessity of consulting the family physician whenever anything approaching symptoms of disease were developed at or near the menopause. From his experience in one of the large charitable institutions in the city, he had become convinced that many persons, who, between the ages of forty-one and forty-nine years, had allowed all symptoms to pass without treatment, might have been saved from malignant disease had they consulted a physician as soon as symptoms were developed. Within a short time he had seen four patients who were suffering from cancer of the uterus in the third stage, and who, for a long time, supposed they had nothing more than what might be expected in connection with the "change of life." Doubtless many women were suffering from advanced malignant disease which might have been very much relieved, if not cured, had treatment been instituted sufficiently early.

Dr. JOEL FOSTER believed that, if positive disease was present at the occurrence of the menopause, it might need local treatment, but that it was especially important to study and treat the general condition of the patient.

The Academy then adjourned.

#### *Anniversary Meeting, December 5, 1878.*

Dr. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

#### ANNIVERSARY ADDRESS—THE WANTS OF THE ADULT MEDICAL PROFESSION—THE ENDOWMENT OF LECTURESHIPS.

Dr. WM. H. THOMSON delivered the anniversary discourse, which contained suggestions and points of interest as follows: After making brief reference to the wide field of trials which the practitioner of medicine is called upon to pass through in pursuit of knowledge which was to sustain him in his professional standing, he remarked that there were not a few physicians of fifteen or twenty years' standing who would rejoice in the passage of a law that would oblige the whole medical fraternity to take an entirely new course of medical instruction in all its branches, not excepting the most elementary ones.

To the uninstructed it might, from such a statement, appear that medical experience was unlike every other experience, causing a loss instead of a gain in knowledge. The truth in the case, however, was very different. That such a feeling existed was to the credit rather than to the discredit of medical science, yet it was none the less operative as one of the trials of our professional life. The man who invested in a knowledge of law was tolerably well assured that he had invested in permanent securities,

and to say that a lawyer kept up in his profession meant but little more than rising in it.

For the physician, however, no such anchorage existed, but instead, he must expect that much of the freight which he had taken the trouble to collect and stow away would suddenly become unsalable or go out of the market entirely. Not only that, but he must be careful with regard to the exhibition of his wares, lest he expose himself to justifiable yet severe and unlooked for criticism. The busy practitioner could no more go over each branch of medicine in review than he could review his youth in each and every respective part. The most that he could do was to read something of the current medical literature of the day, and study the journals, which frequently were about as instructive and trustworthy as the reports of the Sunday sermons in the daily newspapers.

Reference was then made to some of the new discoveries and announcements made in medicine within a few years, such as that the blood is to be classed among the tissues, that a serous membrane had been found to be nothing more than a lymphatic gland spread out thin, etc., etc., to say nothing of the nervous system with its mass of anatomical details, and the details of the supposed physiological arrangements. If the difficulties in keeping pace with the anatomical and physiological advancement were so great, how great must be the maze of difficulties involved in the study of disease itself!

The truth was that, from the very nature of the case, the time had long passed since it was possible for any one man to know what there was to be known about the human body, either in health or disease, and yet we were far from the point at which knowledge was complete.

The doctor then gave a brief review of the requirements and the deliberation manifested in the pursuit of medical study in the European universities. Our medical schools, however, partook of none of the great though subtle appearances of university life. As their support was derived entirely from their pupils, the average length of the pupils' purse was a good cue to the length of the course of study given them. The deficiencies in the course of primary medical education in our country to-day was a good illustration of one of the most prominent wants now felt by those interested in medical scientific pursuits in order that they might be able to keep in the ranks of those who were at work in special directions. In other words, we were deficient in opportunities for obtaining adult medical education. The man who, perhaps for years, had struggled to get a practice, at the end of that time made the unwelcome discovery that his practice had got him. Any studious course of medical reading implied not only time, but a proper condition of mind for it; but, as a rule, the leisure hours of the busy practitioner found him but poorly prepared to engage in any such pursuit. A practical question was, how could those needs of the active profession be met?

The suggestion that medical schools could answer the question was at once dismissed: for, however advanced such schools might be, they never could be adapted to meet the wants of the student and his preceptor at the same time.

The creation of medical societies was undoubtedly intended to supply that want, but experience with reference to medical societies was the same the world over. If they depended solely upon papers read before them for the interest which the profession would take in them, then the life and activity of the association would have an intermittent and fluctuating

character. Something more was requisite in order to insure a steady and effective influence which should tend to crystallize about it the best talent of the medical ranks. For a systematic exposition of a scientific subject, the form of a lecture was believed to be indispensable.

The entire proceedings of a society meeting were as foreign to the natural belongings of a lecture as could be imagined, and addresses by distinguished men upon subjects to which they have devoted special attention had not been given according to any such system.

The disadvantages of the method of inviting such men to lecture in medical colleges, and extending a general invitation to the profession, were apparent. There was no place, so to speak, for lectures for physicians; therefore there were no such lectures. But was there no want for such lectures?

Considering all the elements of the case, it was a wonder that both place and lectures had not been in existence long ago. There were those among us who could at any time make the profession acquainted with all that was known upon his special subject, and that a true representative man should fail of an audience was unlikely. A well-trained lecturer possessed an immense advantage over the author, by being able to arrange the different portions of his subject in such a manner as to allow a rapid view of the whole.

Without presuming to advocate it as a measure, Dr. Thomson suggested that the New York Academy of Medicine consider the advisability of instituting one or more endowed lectureships through which the adult medical profession might be instructed and kept in view of the advancements made in medical science. A brief review was then made of the history of the Gulstonian, the Crunonian, and the Lettsomian lectureships of Europe; and the benefit which they had conferred upon the medical profession.

Dr. Gulston's lectureship was established in 1632, Dr. Crune's in 1684, and each was surrounded with certain restrictions. Dr. Lettsom founded his prize for medical monographs in 1773. He did not hedge it in as did the other men, but made a broad and unfettered provision, leaving to posterity the right performance of its end and duties. The conclusion reached was, that whatever organization should establish such a lectureship in this country, would do so to its own lasting credit and to that of the American medical profession in general.

A vote of thanks was extended to Dr. Thomson for his able and interesting address.

The Academy then proceeded to the transaction of the regular business of its Stated Meeting.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, November 27, 1878.*

DR. A. C. POST, PRESIDENT PRO-TEM., IN THE CHAIR.

### SUBPERIOSTEAL EXCISION OF HUMERUS.

DR. J. W. HOWE presented a specimen of chronic osteitis of the humerus, which he had removed by operation. The history of the case was as follows:

S. Connor, æt. three years, was admitted to Charity Hospital suffering from chronic osteitis of the upper four-fifths of the humerus, with synovitis of the shoulder-joint. The disease had commenced a year previous to admission, with pain and swelling of the arm and stiffness of the joint. It was not originated by injury. On examination, the diseased humerus was found to be very much enlarged. On the anterior surface of the arm there was a large ulcerated

surface communicating with ulcers in the bone. There was a constant discharge from the sinus of fetid pus and small particles of carious bone. Pressure with the probe showed that the bone was soft and carious all over the anterior and inner aspect. At the upper end of the ulceration, in the soft parts, a sinus was found which extended into the shoulder-joint.

After some preparatory tonic treatment I made an excision extending through the ulcerated tissues from the acromion process to within an inch of the elbow-joint, and stripped off the soft part on either side. The periosteum was intact on the posterior and inner side of the bone. This was carefully separated up to the head of the humerus. The muscles attached to tuberosities were then cut and the bone disarticulated. A saw was applied below, about an inch above the elbow-joint, and the bone cut through.

The only dressing applied to the wound was lint steeped in olive-oil, the arm afterwards being covered with a bandage. The wound healed nicely, and new bone formed out in three months from the date of operation. The child had an excellent humerus with perfect motion in both joints, and the wound was entirely healed. The new humerus was larger than the one on the opposite side.

Dr. Post remarked that he had seen a number of cases of osteitis in the bones of young subjects, affecting the arm particularly, but he had found in all that the disease did not extend above the cartilage which separates the epiphyses from the diaphysis.

### MUCOUS PATCH IN THE LARYNX, WITH GENERAL TERTIARY SYMPTOMS.

DR. BEVERLEY ROBINSON presented the heart and lungs of a male patient, aged 31 years, who died the Saturday previous, a few days after admission in the Charity Hospital. At the autopsy, which was made on the Sunday following, very interesting lesions were found: chronic meningitis, acute nephritis, generalized œdema of left lung, circumscribed pneumonia of the left lung, pericarditis and hypertrophy of the heart. The pericarditis was a beautiful specimen of its kind, and was presented on that account. He also exhibited the larynx removed from the same patient, with the view of demonstrating what he considered to be a rare occurrence, viz., syphilitic ulceration of the vocal cords. The man stated that he had syphilitic disease five years ago. He presented also upon his body the signs of old syphilitic infection. His voice was husky. When the larynx was opened, the vocal cords were found to be very much thickened, and presented the cicatrices of old ulcerations. On the posterior surface of the epiglottis there was a small lenticular ulceration which presented rather an opaline and eroded appearance, and was surrounded by an elevated margin. He believed them to be opalescent mucous patches in the larynx, a condition which, despite the frequency with which they are said to occur by some authors, he had never seen before. Authors also described syphilitic lesions of the skin and those of the mucous membrane as occurring together, and as having the same grade. He was convinced that this statement was not founded on fact, the case in question being an instance in point, the man suffering from well-marked tertiary symptoms at the same time that there was a mucous patch in the larynx.

### DEFORMITIES OF FACE AND HANDS FROM CICATRICIAL CONTRACTIONS—RESECTION OF ARTICULAR EXTREMITIES OF DISTORTED PHALANXES.

DR. A. C. POST presented portions of bone from the distal extremities of the first phalanx of the



thumb and the second phalanx of the index finger, with the following history:

John W., born at Patchogue, L. I., December 25, 1876. On the 27th October, 1877, he fell over with a high chair to which he was tied. His face fell on the upper rim of a heated stove. The backs of both hands were brought into contact with the side of the stove, the commissure which joins the thumb and index finger of the right hand embracing a projecting bar of iron. The back of the left hand was burned much more severely than that of the right. Cicatrization was complete in about three months. Before the healing of the sores, a number of pieces of bone were discharged from the left hand.

Nov. 6, 1878.—The present condition of the child is as follows: General health good; mental and bodily development beyond the average. The right angle of the mouth is rounded, thickened, and indurated. A cicatricial ridge extends from the right commissure of the lips to the front of the chin, and obliquely upward and outward to the lobe of the ear, varying in breadth in different parts from half an inch to an inch.

Right hand.—The thumb, at its distal joint, is acutely flexed, and immovably bound down to the palm of the hand by very dense cicatricial tissue. There is complete luxation at this articulation. The distal phalanx of the index finger is subluxated outward, at an angle of about 45°, and is quite immovable. The index and middle fingers are webbed together on their dorsal surfaces, from their commissure to the articulations between the first and second phalanges. The web does not involve the palmar surface. There is free motion of all the articulations of the fingers, with the exception of the distal articulation of the index finger.

Left hand.—The thumb and ring finger enjoy perfect motion. The thumb is uninjured. The ring finger is slightly drawn back by a cicatricial band, which does not essentially interfere with its movements. The little finger is drawn obliquely backward and outward, to an extreme degree, by a dense mass of cicatricial tissue. The distal phalanx is slightly flexed, and there is a little perceptible motion. The index and middle fingers are much distorted, drawn backward, and immovably fixed. The index is dwarfed and thrown behind the medius. The distal end of the medius is bent backward in the direction of exaggerated extension. A very thick, hard cicatricial mass, in which the index, middle, and little fingers are imbedded, occupies half of the dorsal surface of the hand.

I began the treatment, November 6th, with an attempt to improve the condition of the right hand. I made a longitudinal incision on the dorsal surface of the index finger, about three-fifths of an inch in length, extending over the distal extremity of the second phalanx and the proximal extremity of the third phalanx, dividing the skin, the extensor tendon, and the periosteum. I then carefully separated the periosteum from the bone, and with Liston's bone-forceps divided the bone of the second phalanx nearly a quarter of an inch from its distal extremity, and removed the end of the bone. I also excised the cicatricial band, by the contraction of which the end of the finger had been distorted. After this I was able to draw the end of the finger into its normal position, but it required some effort to hold it there.

I then dissected up a triangular flap from the palm of the hand, the base of the triangle towards the articulation of the first phalanx of the thumb with the corresponding metacarpal bone, dividing the cicatricial

mass on each side, but the end of the thumb was liberated to a very slight degree. I then excised the distal end of the first phalanx of the thumb in the same way in which I had operated on the index finger, and about to the same extent, after which I was able to bring the end of the thumb into a nearly straight position. I divided the web connecting the index and middle fingers well up to the commissure.

After waiting for the oozing of blood to cease, I washed the wound thoroughly with a solution of carbolic acid, 1 to 40. I then brought together with fine sutures the wounds on the back of the index and of the thumb and a portion of the wound in the palm of the hand. I then applied a felt splint, stiffened with shellac, to the dorsal surface of the forearm, hand, thumb, and fingers, securing the different parts to the splint with adhesive strips and a bandage. The distal end of the index was not as fully adducted as I had desired, nor was that of the thumb as fully extended; but there was a very marked improvement in the position of these parts.

7th.—I found the patient in a very good condition, bright and playful. The dressings did not seem to have been at all disturbed or loosened.

8th.—Dressed the wounds, washing the parts freely with a solution of carbolic acid, 1 to 40.

27th.—The wounds have been dressed daily since the 10th, making a free application of the carbolic acid solution at each dressing, and applying nitrate of silver to exuberant granulations as often as became necessary. Passive motion has also been made from time to time. The position of the thumb and finger has improved. The wounds are nearly healed. The interdigital space between the index and middle fingers has been maintained by crowding strips of adhesive plaster up to the commissure during the healing process. There is a good prospect that the deformities resulting from the cicatricial contractions on the right hand will be almost entirely overcome, and that useful motion will be restored to the parts which had been deprived of it.

## Correspondence.

### ATONY OF BLADDER TREATED BY INJECTIONS OF ACIDULATED COLD WATER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your journal for September 28, 1878, Prof. Wm. H. Van Buren, in an article on "Lithotomy by a Single Operation, with Cases," page 244, remarks that "the use of cooler water in daily washings of the bladder by means of the fountain-syringe, and the gentle and effectual fomentation of the surface of the irritated organ thus accomplished, is the best local remedy for atony;" but how cool the water must be he does not state, but I infer he means water below tepid or blood heat. Up to this time, all authorities that I have consulted on this subject have advised, whenever it was necessary to irrigate the bladder in cystitis or atony, tepid injections, medicated or not, as the case may require.

The perusal of this paper of Prof. Van Buren brings to my mind two cases of atony with dilatation—not, however, from the cause above alluded to, but from previous want of innervation and consequent over-distention of that viscus—treated, years ago,

successfully by the injection of cold water acidulated with cider-vinegar.

July 15, 1866, I was called in great haste to see Thomas W., *et.* 30 years. He was of feeble intellect, but generally healthy; had been under treatment for syphilis for the last eight months, but presented at the time none of the secondary manifestations of the disease. The patient lived in an almost inaccessible mountain home, twelve miles from this place (Newbern, Va.). I found him in great agony from retention of urine; the bladder reaching up to the umbilicus. I lost no time in introducing the catheter, and drew off a large quantity of urine, to the great relief of the patient. The bladder filled again, but he was, with all the assistance that could be afforded him, unable to pass a drop, consequently the catheter had to be used again the next morning. The patient now requiring so much of my time, from the great distance I had to ride to see him, was turned over to the care of a second course student then studying in my office, who spent most of his time with him and on the road for eight or ten days, until finally, worn out and patience exhausted, he insisted I should see the patient again with him, to which I consented. When the catheter was introduced into his bladder, which was considerably distended with urine, there was but little flow, nor could he force it out by voluntary efforts, but the organ could be emptied only by pressure over the abdomen. The urine was very offensive, and when the pressure over the abdomen was relaxed, the air could be heard gurgling up through the catheter into the bladder. In this extremity, arguing from uterine analogy, I directed him to inject the bladder with cold spring or branch water (about 80° F.), and as the urine was ammoniacal, to acidulate it with cider-vinegar; this I could not carry out at the time for want of a syringe. The directions were carried out the next day by my assistant, when three injections of four ounces of the mixture were used at one sitting; this was repeated again the next day, and the day after the patient was reported as doing well and able to pass his urine without the aid of an instrument. I saw him some weeks afterwards entirely relieved.

July 22, 1868, I was called in haste to see Julia R., *et.* 20 years. She had been confined to bed for four weeks with a severe attack of typhoid fever, which had so far subsided that I had not visited her for several days. Her health was good previous to this typhoid attack. I found her abdomen enormously distended, though the urine was dribbling on the bed. The catheter was introduced and the bladder emptied, to the entire relief of the patient. The patient lived five miles over a rough road from Newbern, so that to attend her I had to spend most of my time with her or on the road, as I could not induce any of the female part of the family to undertake to learn to introduce the catheter. The bladder could be emptied only by pressure over the abdomen, and the urine after four or five days became very offensive. There was complete atony, and my patience was now well nigh exhausted. Remembering the happy result in the case of Thomas W., I resolved to try the same method of treatment in this; so I injected into her bladder, after thoroughly emptying it, about four ounces of the cold water (about 70° F.) and cider-vinegar, and repeated it at the same sitting, both of which the bladder responded to by expelling the injection. The injection was not again repeated, for she had no further difficulty in emptying her bladder.

The cider-vinegar was suggested because it is an

antiseptic of no mean power, and because it seems to have a very decided effect when applied to the inner surface of the uterus in inertia of that organ, and it is always convenient.

After the treatment of the last case, it was suggested by a professional brother, to whom the facts were related, that I should publish it, to which I replied that I would probably have other cases of a similar character to treat that would establish the value of the method, and that, then, if there was anything in it, I could publish it for the benefit of the profession; but since the last case related in this paper was treated, I have not had another of similar nature in which to further test its value.

W. H. BRAMBLETT, M.D.

NEWBERN, VA., NOV. 27, 1878.

## CONTAMINATION OF WELL WATER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The following was furnished me by my friend Dr. Eldredge, a distinguished physician of Rhode Island. I quote his own words. The facts, as related, took place at a town known as East Greenwich, where the Doctor resides.

"Three or four pailfuls of brine, accumulated daily in making ice-cream, were thrown into a pit three or four feet deep, and twenty-five feet west of a well on the premises. In two months the water in this well was salt and unfit for use. In four months, or about that time, another well forty feet deep, and across the street and in the same direction (a little north of east) from the brine receptacle as the first, full one hundred and fifty feet distant, was also made unfit for use, the salt being perceptible in tea and coffee. The surface slopes quite sharply to the east, and is underlaid by rock at fifteen or twenty feet, having the same dip as the surface. When the cause was discovered, some other disposition was made of the brine, the wells pumped out and cleaned, and at this time, more than a year after, they are better, but not quite free from salt."

This, in view of statements lately made concerning the drainage on the North River, may be instructive.

Respectfully,

W. W. HOPPIN, JR.

## SOME RECENT FACTS CONCERNING TRICHINÆ.

(From our Special Correspondent.)

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Some investigations have just been completed by two Chicago microscopists as to the prevalence of trichinæ in the pork that comes to our markets, that seem worthy of record. Some time ago Dr. Wm. T. Belfield, Demonstrator of Physiology in Rush Medical College, and Mr. H. T. Atwood, Vice-President of the State Microscopical Society of Illinois, were asked by the Commissioner of Health of Chicago, Dr. DeWolf, to examine specimens of pork taken at random from the hogs being slaughtered at the different slaughtering houses. Specimens from one hundred hogs were carefully examined, and in eight trichinæ were found, the number varying according to estimate from thirty-five to thirteen thousand to the cubic inch of muscle. This is doubtless approximately the average of infection of the pork brought to Chicago for packing. The trichinous disease among hogs—if disease it is—must be much



more prevalent now than ten or twelve years ago. Then an examination of quite a large number of hogs in behalf of the Academy of Sciences showed only about one in fifty infected.

Messrs. Belfield and Atwood have experimented with rats and other animals, to which they have fed trichine, and have reached the conclusion that, taken in small numbers and not too frequently, any animal or man may eat these worms with impunity. A rat weighing two ounces was fed at intervals of two or three days a few trichinae for six weeks, when it was killed. It was full of live trichinae—which, immersed in warm water, would move vigorously—the estimated number in the rat being 100,000. During the six weeks the rat appeared perfectly healthy. Dr. Belfield felt so sure of the innocuousness of small numbers of the worms, that he made a practical test by himself eating twelve live trichinae three weeks ago. He has not experienced an unpleasant symptom to date. He believes a large per cent. of our population are really infected with trichinae. It is a fact in confirmation of the theory of these observers, that many of the infected hogs have received the trichinae without symptoms of disease, certainly without any damage to their fattening qualities. It is surely impossible that eight per cent. of all the hogs raised for market could get sick with symptoms approaching in severity those of severe human infection, without such a panic among farmers as would be noticed by the whole country.

Some experiments with different agents used for the destruction of the worms showed that the best inexpensive agent was sulphurous acid; a very little of this acid, mixed with the brine in which pork is preserved or pickled, will kill all the trichinae, without, of course, any damage to the pork for any purpose. The lowest per cent. of the acid required to be effective has not yet been determined.

B.

CHICAGO, Dec. 10, 1878.

## YELLOW FEVER FUND.

DEPARTMENT OF STATE, WASHINGTON, Dec. 19, 1878.

JOHN C. PETERS, M.D.:

DEAR SIR—I have to acknowledge the receipt of your letter of the 8th of November, directing my attention to the action of the Medical Society of the County of New York in establishing a fund for the relief of physicians and their families who have suffered by the yellow fever epidemic, and requesting that a portion of the foreign subscription fund, in my hands, should, if possible, be contributed to that fund.

I read your letter with much interest, but have delayed replying to it until the condition of the funds should be such as to enable me to decide what portion, if any, of them I could use in accordance with your suggestion.

I am now happy to inform you that I find myself able to place \$250 at your disposal, and I shall be pleased to be notified by you of your wishes in regard to it.

I am, my dear sir, very truly yours,

WM. M. EVARTS.

ANTISEPTIC SURGERY.—The cost of the antiseptic system in the Glasgow Royal Infirmary is so great that it has excited the serious consideration of the managers.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 15 to December 21, 1878.*

JANEWAY, J. H., Major and Surgeon. Assigned to temporary duty at Fort Wood, N. Y. H. S. O. 231, Dept. of the East, December 16, 1878.

BROWN, H. E., Capt. and Asst. Surgeon. From and after January 1, 1879, to take station at Camp "Guilford D. Bailey." S. O. 264, Dept. of Texas, December 16, 1878.

LORING, L. Y., Capt. and Asst. Surgeon. Assigned to duty at Fort Hays, Kansas. S. O. 226, Dept. of the Missouri, December 12, 1878.

## Medical Items and News.

PHLEGMONOUS ERYSIPELAS AND OPHTHALMIA NEONATORUM.—Dr. Francis Valk, of this city, sends us the report of a case of phlegmonous erysipelas occurring in a woman *et. 45* years, who was nursing a baby suffering from *ophthalmia neonatorum*, and due, in all probability, to the absorption of pus from the child's eyes by an abraded surface upon one of the fingers. The inflammation involved the hand, forearm, and inner aspect of the arm to the axilla. Hot water sponge-baths, lead and opium lotion, quinia and iron caused a prompt subsidence of the affection. A small abscess on the radial side of the middle finger was opened on the eighth day subsequent to the appearance of the first symptoms.

AMERICAN VERSUS EUROPEAN SPECIALISTS.—Col. John W. Forney, writing in *Progress*, says: "While in London, last winter, I had a call from an old friend, Mr. William H. Lockard, Superintendent of the Eastern Division of the Pennsylvania Railroad. Born in my native county of Lancaster, in this State, and now living in West Philadelphia, he grew from a very humble beginning, by sheer energy, to a high position on the great iron road between the rivers Ohio and Delaware. But in the midst of his usefulness, he was smitten by what seemed to be a paralysis of the muscles of the eyes. His friends, alarmed at his condition, advised him to consult the eminent oculists of the old world, and they wrote me in advance that he was coming. I had despaired seeing him, when one day he walked in upon me. He had consulted the best talent in Italy, Germany, and France, without success, and I assisted him to a knowledge of the great specialists of London. But all in vain. Every process was tried, with no result, and at the end of a long and costly experience he returned home with a number of conflicting diagnoses of his complaint—in fact, a small literature on the eye. He was in great mental agony when we parted, and I left him with a sincere solicitude. On my return to Philadelphia, I found that my old friend had taken the advice I gave him in London. He called on Dr. Richard J. Levis, Sixteenth and Walnut Streets,—and in a second interview, that skillful operator discovered the source of the disease and applied the remedy, and, almost in a twinkling, restored him to a perfect vision. The disease was diplopia, or partial paralysis of the ocular muscles. The relief and joy of Mr. Lockard can hardly be conceived. Moral.—Before you spend your money on foreign skill exhaust your home material. What adds to the interest of the whole case is the fact that neither the patient nor the surgeon have

ever made the slightest public allusion to it. But if Lockard had been restored by any of the European oculists, it would have been blazoned in their scientific journals as a marvellous achievement."

**THE NEW PENNSYLVANIA STATE HOSPITAL FOR THE INSANE, NEAR NORRISTOWN.**—The first act of Assembly from which the hospital commission derived its authority appropriated \$25,000 toward the purchase of land, not less than two hundred acres, and subsequently \$575,000 was appropriated, payable at stated dates, making a total of \$600,000 toward purchase of land and construction of buildings.

After the most careful examination, by personal inspection of many farms within the limits of the district, the Commission selected and purchased, with the approval of the Governor and the Board of State Charities, the several farms near Norristown, at a cost for the whole land and buildings thereon of \$58,180. The contract for building was made March 18, 1878. The land purchased contains two hundred and sixty acres, and is about a mile from Norristown, and a fine view is had of that borough, as well as the surrounding country, from the new buildings, and from almost every portion of the farm. The location is not only a very beautiful and healthy one, but is admirably situated to aid the contractors in pushing the work to an early completion.

The fine bricks of which all the buildings are constructed are manufactured within a few hundred yards of the new edifices, and the stone for the foundation is also obtained close at hand. The contract entered into with Mr. John Rice was for seven ward buildings, each 91 by 285 feet, and capable of accommodating one hundred patients each, boiler-house, kitchen, and chapel. Five of the ward buildings and the boiler-house are under roof, and the first floor joists laid on the other two. The chapel foundations and the connecting corridors are all laid. Ward buildings Nos. 2 and 3 have been plastered, and Nos. 4 and 5 well under way in this respect, with much of the interior carpenter work done. The total cost of the work to Nov. 30, 1878, was \$259,800.

These buildings occupy three sides of a square, and present a very fine appearance. No special style of architecture is used, and no attempt has been made at display; but they look, as they really are, substantial, neat, and well adapted for a home for the indigent insane.

The work of laying bricks was commenced the 30th of last April, and since that time 9,300,000 bricks have been put in the buildings now erected. To prepare for the foundations 32,500 cubic yards of earth had to be excavated, 7,000 perches of masonry have been laid, besides 6,370 cubic feet of belting stone and 6,000 of marble. 1,000 squares of slate have been used for roofing, in addition to 18,000 square feet of tin. The lumber so far used amounts to 1,800,000 feet, and the iron work has reached to 45 tons. At one time nearly four hundred men were employed. The force has been reduced to seventy, principally plasterers and carpenters.

Although in the general plan adopted there is provision for a suitable administration building, which will doubtless be required, the work on that has not been commenced, it having been decided by the Commission to utilize the existing farm buildings for that purpose at present, and devote all the means necessary for the erection of the ward and other buildings required for the use of the large number of insane who will become inmates of this hospital.

The progress of the work thus far and its present

advanced condition justifies the confident expectation that during next summer the buildings now contracted for and in progress will be completed and ready for use, and delivered by the Commission to the State authorities.

The Hospital Commission consists of General Joseph Patterson, President; William H. Miller, Treasurer; A. G. Bart, Secretary; Hon. John Shouse, General Robert McAllister, James S. Chambers, and Doctors Thomas G. Morton, H. G. Howe, L. W. Reed, and N. A. Pennypacker.

**OXALATE OF CERUM IN CHRONIC COUGH.**—Dr. James G. La Roe, Jr., of Greenpoint, L. I., writes: "In *THE MEDICAL RECORD*, bearing date May 25, 1878, and credited to the *Practitioner*, is a short article on the use of oxalate of cerium in chronic cough. It is highly lauded by Thomas Clark, L.R.C.P., etc. In doses of five grains, we are told, it is a good sedative, and hence its usefulness in lung-troubles. Its virtues in stomach-complaints are fully appreciated. In the intractable vomiting of pregnancy I have found it the remedy *par excellence*. It struck me, however, that the dose was rather large. Two-grain doses, in my hands, have done the tranquillizing work desired. I had been treating a lady whose phthisical cough was a source of great worry to me. Everything suitable to the case was tried, but to no effect. The cough was incessant, and wore her completely down. The drugs, which had served her so well hitherto, refused now to give her even partial rest. As I never tried it in lung-troubles, I determined to give the oxalate of cerium strictly according to directions. Five grains were ordered to be taken a half hour before rising. The result was, my patient was unable to get out of bed until late in the afternoon. That the drug was a sedative admitted of no doubt, for Mrs. L. did not gain her full senses until the time indicated. She described herself as having been in a stupor all day. The reaction, seemingly, made her cough as bad, if not worse, than before. Altogether, the effect was rather unpleasant. Of course, her memory as to whether she coughed meanwhile went for nothing. It was beyond her power to grasp any fact until the profound sedative action had passed away. I was anxious to see if these feelings would be repeated, and so prevailed on her to try once more. The same result occurred again. That the dose was too large was very manifest. Equally suggestive was the thought that its true vocation was in a smaller quantity. It required not a little persuasion to get Mrs. L. to try still further. I only succeeded after declaring I would desist after this trial. I directed half a powder to be taken in the same manner as before. The sequela was all that could be desired: I was fully repaid for my persistency. My patient did not cough the remainder of the day, and felt very grateful in consequence. She took the medicine several times more, not waiting to be told to do so. Since then the oxalate of cerium has done duty several times in Mrs. L.'s case, and with the greatest satisfaction, as before.

"In one other case, within a few weeks past, and of precisely the same nature, I ordered the drug to be taken in three-grain doses. The *finale* was in every way gratifying."

**UNUNITED FRACTURE OF TIBIA.**—A case of unmanageable ununited fracture of the tibia was successfully cured by Dr. Guyon, at the Hospital Necker (Paris), by three subcutaneous injections of tincture iodine between the ends of the bone. Union was complete in six weeks.



# INDEX.

## A.

Abdominal tumor, 477.  
Abscesses, new method of hastening suppuration of, 226.  
Abuse of medical charities, 11, 131.  
Acetonæmia, doctrine of, 9.  
Adams's operation, 470.  
Adenitis, treatment of chronic, 210.  
Adhesive plaster, elastic, 438.  
Adult Medical Education, 514, 515.  
Ady, Dr. A., tetanus from hypodermic injection of quinine, 480.  
Achromatopsia, 69.  
Acne, treatment of, 89, 161, 198, 369, 438.  
Agnew, Dr. D. Hayes, attitude and expression in surgical diseases, 424.  
Agoraphobia, case of, 38.  
Air, an advocate for pure, 260.  
Albany City Hospital reports, 389.  
Albuminuria in healthy persons, 120; treatment of, 172.  
Alcohol and coma, 459; and insanity, 439.  
Alcoholic drinks in England, 420.  
Alcoholism, on chronic, 181; treatment of, 199.  
Aleurites triloba as a cathartic, 172.  
American Academy of Medicine, 252, 253.  
American Academy of Sciences, 400.  
American Dermatological Association reports, 234.  
American Gynecological Society, 273, 296; transactions, notice of, 495.  
American microscopes, 438.  
American Neurological Association reports, 34.  
American Public Health Association, 332.  
American Veterinary Hospital, 40.  
Amidon, Dr. R. W., cerebral hemorrhage with miliary aneurism, 157; gastric ulcer, 217; ventricular hemorrhage, 13.  
Amyloid infiltration of eyelid and orbit, 266.  
Anaphrodisiac, salicylic acid as a, 429.  
Anderson, Dr. Wm., iodine in malarial fever, 408.  
Anginose affection, oil of amber in, 470.  
Aneurism, case of, 268, 368; diagnosis of, 316.  
Antiseptic deligation of arteries in continuity, 88; solution of benzoic acid, 437; surgery, cost of, 519.  
Apoplexy and hemiplegia, 122.  
Arabian proverb, an, 440.  
Arlt, F. v., notice of work by, 134.  
Army, medical staff of the, 174.  
Arthritis, attitude and expression of, 426; deformans and old age, 512.  
Ascites by abdominal compression, treatment of, 172.  
Aspilla Latifolia, a new hemostatic, 360.  
Asthma, treatment of, 119; renal, case of, 350.  
Astigmatism without asthenopia, 249.  
Astragalus, removal of, in an adult in a case of congenital talipes, 349; excision of, 389.  
Atalectasis produced by a bath, 315.  
Atheloid spasm, case of, 129.  
Atlee, Dr. W. L., death of, 218.  
Atomizing instruments, 416.

Atropine, uses of, 410.  
Aural instruments, new, 417.  
Axillary vein, wounds of, in operation, 155, 216

## B.

Badger, Dr. W., arsenical poisoning from a new source, 194.  
Balsamum Anarthriticum Indicum, 512.  
Bandages, how to make crinoline, 77; plaster-Paris, how to prepare, 118.  
Barker, Dr. Fordyce, letter from, 376.  
Barnes, Dr. R., notice of work by, 455.  
Bates, Dr. W. H., apparatus for arresting urethral hemorrhage, 98.  
Battey's operation, 8.  
Beales, Dr. John C., death of, 140.  
Beard, Dr. Geo. M., electricity in the treatment of tumors, 263; hay fever, 348; review of work by, 413; scientific lessons in the Mollie Fancher case, 446.  
Bellevue Hospital reports, 107, 188, 268, 366, 428, 449, 469.  
Bigelow, Dr. H. J., notice of work by, 333.  
Bladder, atony of, treatment of, 517; discharge of fecal bones through the, 275; hair-pin in female, 357; Mercier's operation for valvule at neck of, 469; novel operation upon the, 350; paralysis of, cause of, 87; paralysis of, by belladonna, 196; sarcomatous tumor of the, 395.  
Blepharospasm ending in recovery, 48, 291.  
Blindness, congenital, six cases of, cured by operation, 210.  
Blood-globule, composition of the, 29.  
Blumenthal, Dr. M. H., localized fibrinous induration of stomach, 313.  
Bodenhamer, Dr. W., notice of work by, 153.  
Body-snatching, 392, 433.  
Boils, treatment of, by arnica, 120.  
Bones, changes in medulla of, 210.  
Brain, abscess of the, 415; aneurismal tumors of, 36; how to treat our, 260; tumor of the, 223, 477.  
Bramblett, Dr. W. H., on atony of bladder, 518.  
Breast, malignant tumor of, 169; management of, when nursing, not advisable, 176, 357; premature development of, in a rachitic child, 200.  
Briddon, Dr. Charles K., antiseptic deligation of arteries in continuity, 88; extirpation of rectum, 355; on ligation of lingual artery, 214; lumbo-colotomy, 497, 509; osteo-sarcoma of knee-joint, 155; morbus coxarius, 156; structure of urethra, 135.  
Bright's disease, acute, 428; following confinement, 189.  
Brinton, Dr. J. H., transfusion of blood and intravenous injection of milk, 344.  
British confrères, visit of, 332.  
Broad ligament, hæmatoma of, 435.  
Bromide eruption, treatment of, 199, 431.

Bromide of potassium as a diuretic, 440; poisoning by, 200.  
 Bronchitis, wine in capillary, 289.  
 Broncho pneumonia, treatment of, 327.  
 Browne, Dr. L., notice of work by, 373.  
 Buck, Dr. A. H., removal of polypoid growths from ear, 61, 338.  
 Bull, Dr. C. S., amyloid infiltration of eyelid and orbit, 266.  
 Bull, Dr. W. T., rupture of urethra from kick, 356.  
 Bunstead, Dr. F. J., address by, 458.  
 Burke, Dr. Martin, calabar bean in tetanus, 7; trouble-some case of midwifery, 436.  
 Burns, sudden death after, 109; treatment of, 439.  
 Burrall, Dr. F. A., chloroform narcosis and chloramyl, 319; nitrite of amyl as an antidote to chloroform-poisoning, 43.  
 Butter, adulterated, analysis of, 500.  
 Byrd, Dr. W. A., nerve-stretching for sciatica, 250.

## C.

Calabar bean in tetanus, 7.  
 Call, strigulus micrurus in the, 395.  
 Callender, Mr., of London, 451.  
 Calomet, large doses of, in diphtheria, 410, 456.  
 Cæsarean section, in a dwarf, 491; post-mortem, 199.  
 Caimco, a new malady among the polishers of, 199.  
 Camphor, as an antiseptic dressing, 348; an hypnotic, 391.  
 Cancer, aphorisms in, 231; parenchymatous injections in, 80; of penis, relief of pain in, 439; and sarcoma, 134; treatment of, 474.  
 Canned fruits, dangers of use of, 370.  
 Capillary bronchitis, wine in, 289.  
 Carbolic acid in surgical dressings, 370.  
 Carbolismus, case of, 440.  
 Carcinoma, diffusion of, by nerves, 150.  
 Cardiac murmurs, cases of, 326.  
 Carotid, ex-section of, in operation, 385.  
 Carpenter, Dr. W. M., report of Microscopical Committee, 213, 214.  
 Caseous pneumonic phthisis, 481.  
 Casts, urinary, origin of, 109.  
 Catarrhal phthisis, lecture on, 221.  
 Caustic crayon, elastic, 391.  
 Cervical glands, abscess of, and sewer-gas, 433.  
 Cervix uteri, Skene on lacerations of, 250.  
 Cerebellum, lesions of, 143.  
 Cerebral hemorrhage with miliary aneurisms, 157.  
 Cerebral and spinal diseases, localization of, 301, 361.  
 Cerebral thermometry, 37.  
 Cerebral traumatism, notice of work on, 132.  
 Cerebro-spinal axis, structure of the ganglionic bodies of the, 38.  
 Cerebro-spinal meningitis, 329.  
 Cerebrum, lesions of base of, 101, 103, 141.  
 Chancre, a new topical application for, 180.  
 Chapman, notice of work by, 153.  
 Charteris, Dr. M., notice of work by, 232.  
 Chest, incision of, for pyothorax, 406.  
 Children's Hospital, Philadelphia, reports from, 230, 308.  
 Chloral, large dose of, 420.  
 Chloral plaster, 180.  
 Chloramyl, a new anæsthetic, 279, 318.  
 Chloroform, death from, 438; narcosis, 368; narcosis and chloramyl, 318; necessity of caution in use of, during labor, 110; subcutaneous injections of, 450.  
 Cholecystotomy, case of, 170.  
 Cholera infantum, 4.  
 Cholera, paracetoin in the treatment of, 450.  
 Chorea, propylamine in, 431.  
 Choroid plexus of horse, tumor in, 313.  
 Chromidrosis, two varieties of, in same subject, 134.  
 Cigar-holder, paper, arsenic in, 440.  
 Cirrhosis, with enlargement of liver, 328.  
 Clamp suture, a new, 314.

Clark, Dr. Alonzo, localized peritonitis, 81.  
 Clark, Andrew, Dr. (London), varieties of pulmonary phthisis, 461, 481; visit of, 451, 459, 489.  
 Cleborne, Dr. C. J., index rerum, 338.  
 Cleveland, Dr. Emeline, death of, 499.  
 Classen, Alex., notice of chemistry of, 296.  
 Clavicle, attitude and expression in fracture of, 426.  
 Club-foot, treatment of, 401, 421, 441, 461, 482, 501.  
 Cod-liver oil, new method of covering the taste of, 358.  
 Codman & Shurtleff's atomizing apparatus, 399.  
 Coffee, hypodermics of, in morphia-poisoning, 490.  
 Cohen, Dr. J. Solis, separate investment of the palato-glossi muscles, 44; laryngeal phthisis, 503.  
 Colles' fracture, pathology of, 310.  
 Colic, treatment of, 437; in horses, treatment of, 199.  
 Colon, thickening of coats of, 106.  
 Colorado as a health resort, 203.  
 Colvin, Dr. D., opium in parturition, 18.  
 Coma and alcohol, 459.  
 Confinement, death in, 355.  
 Conjunctivitis, 1; granular, neutral acetate of lead in, 291.  
 Constipation, glycerine as an injection for, 40, 503.  
 Contagium, theory of, 369.  
 Convulsions in a child, due to the presence of a hair in the alimentary canal, 112; and intra-venous injection of urea, 110; pilocarpine in, 471.  
 Cook Co. Hospital (Chicago) reports, 169, 290, 408.  
 Cook, Dr. John L., membranous tonsillitis, 17.  
 Corned beef, poisoning by canned, 439.  
 Corrosive sublimate in acute intestinal catarrh, 1, 194.  
 Coto bark in the diarrhoea of children, 288.  
 Cough, oxalate of cerium in chronic, 520.  
 Coxalgia, attitude and expression in, 425.  
 Creaking sound in pleuro-pneumonia, 313.  
 Cremation, Dr. S. D. Gross on, 340, 460.  
 Crime, treatment of, and reform of criminals, 292, 311.  
 Croupous pharyngitis, case of, 328.  
 Croupous pneumonic phthisis, 463.  
 Crow, Dr. J. T., extemporized forceps, 60.  
 Crura cerebri, lesions of, 103.  
 Cruse, Dr. T. K., medical education in France, 116.  
 Culbertson, Dr. J. C., visit of, 480.  
 Cushman, Dr. Elizabeth M., death in confinement, 355, 380.  
 Cyanide of potassium, poisoning by, 340.  
 Cystitis and vaginismus, 290; from gonorrhoea, 107.  
 Cyclopædia, Ziemssen's, reviews of, 51, 113.

## D.

Daltonism, treatment of, 200.  
 Death, new cause of, in doubtful cases, 192.  
 De Beer, Dr. J., atomizer, 416.  
 Deglutition, difficult, an early symptom of aneurism, 268.  
 Dentist, heavy sentence of a, 360.  
 Dermalgia from quinine, 427.  
 Descendens noni, exsection of, in operation, 385.  
 Dessau, Dr. S. Henry, pleurisy in children, 227.  
 Diabetes mellitus, treatment of, 200, 330.  
 Dialyzed iron, hypodermic injection of, 17, 60.  
 Diaphragm, paralysis of the, 229, 280, 317, 348.  
 Diarrhoea of children, coto bark in the, 288.  
 Diarrhoea, oxide of zinc in, 426.  
 Digitalis, cumulative action of, 138.  
 Diphtheria, treatment of, S. 153, 410, 456; and sewer-gas, 71.  
 Discotome, the, 78.  
 Disinfectants, 420, 438.  
 Distinguished visitors, 454.  
 Diuretic, bromide of potassium as a, 410; caffeine as a, 129; squills as a, 340.  
 Duboisine, uses of, 410.  
 Duodenum, cancer of, 67.  
 Duret, Dr. H., notice of work by, 132.  
 Dwight, Dr. T., notice of work by, 373.



Dysentery, lecture on, 201.  
 Dysmenorrhœa, surgical treatment of, 273.  
 Dyspepsia, treatment of, 16, 244, 389.

## E.

Ear, cheloid tumors of, 216; diseases of, and cerebral symptoms, 111; external accumulations in canal of, 124; polypoid growths in the, 338; removal of growths from, 61; notice of work on, 295.  
 Eclampsia, pilocarpine in, 171.  
 Eczema, local treatment of, 321, 331.  
 Edson, Dr. Benj., paralysis of diaphragm, 229, 317.  
 Elbow, bony ankylosis of elbow-joint, 15.  
 Electrical stimulus, transmission of, across median line of body, 35.  
 Electrical therapeutics, contributions to, 27.  
 Electricity in the treatment of tumors, 263.  
 Elevated railway, 71.  
 Emerson, Dr. J. H., liver fungi and infectious diseases, 317.  
 Emesis, electrical treatment of, 29.  
 Emphysema from injury to thorax, without a fractured rib, 325.  
 Empyema, salt in, 391, 438.  
 Endarteritis, 171.  
 Eneurisis nocturna, treatment of, 330, 450.  
 Enteritis, remarks on, 203.  
 Epidemics, study of, 351.  
 Epiglottis, ulceration of, 504.  
 Epilepsy, curare in, 340.  
 Epileptic convulsions, veratrum viride in, 208.  
 Epileptic and Paralytic Hospital, Blackwell's Island, N. Y., 129.  
 Epistaxis, ligation of thighs in obstinate, 309; subcutaneous injection of ergotine in, 391.  
 Epithelium and its performances, 235.  
 Erb, paralysis of, case of, 323.  
 Erectile tumors, treatment of, 451.  
 Ergot in cardiac disease, 420; in abortion, 40.  
 Erysipelas, subcutaneous injection of carbolic acid in, 438.  
 Eserine, uses of, 410.  
 Esmarch's treatment of cancer, 474.  
 Ether, subcutaneous injection of, 437.  
 Evarts, Hon. W. M., yellow fever fund, 519.  
 Exophthalmic goitre and palpitation, 270.  
 Experiments with human beings, sources of error in, 37.  
 Extra-uterine pregnancy, with discharge of fetal bones through the bladder, 275; in Douglas's cul-de-sac, 365.  
 Extremities, unequal length of, 451.  
 External iliac artery, ligation of, 108.  
 Eye, amyloid infiltration of, 236; filaria in the, 471; gunshot wound of, 475; medico-legal aspect of injuries of, 134.

## F.

Facial neuralgia treated by aconite, 512.  
 Fancher case, the, 416.  
 Fat, how to be, 457.  
 Fecundity in bovine race, 500.  
 Felton, Dr. A. D., vomiting in pregnancy, 39.  
 Female physicians, 540.  
 Femur, excision of head of, in intra-capsular fracture, 394; fracture of neck of, 283; intra-capsular fracture of, 15; subcutaneous section of neck of, 319.  
 Fever and ague treated by carbolic acid, 330; by common salt in, 198; by iodine in, 408.  
 Fibroid Phthisis, 462.  
 Fibroid tumors of uterus, spaying for, 368.  
 Field, Dr. Henry M., quinine and dermatalgia, 127.  
 Filaria in the eye, 471.  
 Fingers, contraction of, 450.  
 Five children at birth, 439.  
 Flint, Dr. Austin, on dysentery, 201; leucocythæmia, 121.

Flint, Dr. A., Jr., notice of work by, 112.  
 Flour, lead poisoning by, 20.  
 Foot, difference in the anatomy of adult and infant, 422.  
 Forceps, an extemporized, 60; the pendulum movement of, 298.  
 Forest, Dr. W. E., hydrocephalic foetus, 23; powerless labor, 448.  
 Fowler, Dr. Edmund, experiences in the treatment of yellow fever, 195.  
 Fungoid neoplasm, inflammatory, 235.  
 Furuncles, treatment of, 120.

## G.

Galvanic treatment of ulcerated os uteri, 269.  
 Gangrenopsis, case of, 236.  
 Gastralgia, treatment of, by stomach douche, 48.  
 Gastric ulcer, case of, 217; treatment of, 300.  
 Gastric vertigo and hypodermic use of iron, 90.  
 Gastro-clytomy, 297.  
 Gastro-hysterotomy, 90.  
 Gastrotomy, case of, 360.  
 Gay, Dr. C. F., fracture of neck of thigh, 283.  
 Genu-valgum, osteotomy for, 451.  
 Germ theory of disease, the, 362, 398, 416.  
 Gerster, Dr. Arpad G., pyothorax treated by incision, 405.  
 Gibney, Dr. V. P., pistol-shot wound of heart, 476.  
 Glanders, remarks on, 40.  
 Glazier, Dr. W. C. W., plaster-Paris bandages, 118.  
 Gleet, causes and treatment of, 261.  
 Globulometer, Montegazza's, 271.  
 Goeler, Dr. A. H., extra-uterine pregnancy in Douglas's cul-de-sac, 305.  
 Goitre, treatment of, 439.  
 Gonorrhœa, Gurdun balsam in, 500.  
 Gouley, Dr. J. W. S., cystitis from gonorrhœa, 167; Mercier's operation for valvule at neck of bladder, 469.  
 Goat, treatment of, 200.  
 Gray's Anatomy, notice of, 233.  
 Gronier, Prof. M. E., death of, 310.  
 Gross, Dr. Samuel W., causes and treatment of gleet, 261.

## H.

Hair, new method for removing superfluous, 224.  
 Hall, Dr. Charles H., corrosive sublimate in intestinal catarrh, 195.  
 Hamilton, Dr. Allan McLane, lateral spinal paralysis, 323; notice of work by, 93.  
 Hammond, Dr. W. A., cerebral symptoms from impacted cerumen, 414.  
 Hanks, Dr. H. T., rapid dilatation of uterine canal, 64.  
 Hare-lip, new operation for, 471.  
 Harris, Dr. P. A., Wood's cannula modified, 139.  
 Hay fever &c. paralysis of diaphragm, 289, 317, 348.  
 Haynes, Dr. W. H., contributions to electrical therapeutics, 27.  
 Hemoptysis, a case of hysterical, 368.  
 Hemostatic collodion, 492.  
 Head, treatment of neurases of, 200.  
 Headache, treatment of, 359.  
 Hearing, effects of quinine on, 421.  
 Heart, absence of right ventricular cavity of, 157; hypertrophous dilatation of, 11; nervous and reflex affections of the, 89; oil of amber in neuralgia of, 470; pistol-shot wound of, 476; in typho-malarial fever, 83.  
 Heaton, Dr. G., notice of a work by, 94.  
 Heels, ladies', 420.  
 Heineman, Dr. H. N., absence of right ventricular cavity of heart, 157.  
 Heitzman, Dr. C., cancer and carcinoma, 134; microscopic anatomy of necrotic bones, 217.  
 Hemiplegia gradually commencing in finger, 189; prophylaxis of, 381.

- Hemorrhoids, treatment of, 241.  
Hemostatic, a new, 360.  
Hermaphroditism, case of, 391.  
Hernia, congenital phimosis as cause of, 491; rare case of strangulated, 68; strangulated, interesting case of, 168, 300; easy method of reducing, 138, 300; notice of a work on, 94.  
Herrick, Dr. O. E., new uterine support, 20.  
Hiccough, treatment of, 199.  
Hicks, Dr. J. L., cancer of duodenum, 67; rheumatism with meningitis, 104.  
High temperature, an effectual means of controlling, 96.  
Hilton, Dr. J., death of, 337.  
Hip-joint disease, attitude and expression in, 425; reflex symptoms of, 471.  
Hips, rare congenital malformation of, 258.  
Hirsuties, treatment of, 235.  
Hoehling, Dr. A. A., local administration of iodine in syphilis, 98.  
Holly, Dr. F. M., pistol-shot wound of heart, 476.  
Homœopathic resolutions, 432, 437.  
Homœopathy and exclusiveness, 111, 192, 217, 251, 255, 278, 493.  
Hopkin, W. W. Jr., contaminated well-water, 518.  
Horace, a misquotation from, 18.  
Horse, tumor in choroid plexus of, 312.  
Hospital appointments, 91.  
Hospital Department of Colored Home, N. Y., reports of, 88.  
Hospital libraries in Paris, 410.  
Hospital University of Penn., 389.  
Hotel physicians and rural practitioners, 10.  
Howe, Dr. Joseph W., excision of head of femur in intra-capsular fracture, 394; gunshot wound of, 475; ligation of lingual arteries near their origin, extirpation of tongue, 347; strangulated hernia, 168; subperiosteal excision of humerus, 516; transfusion of milk, 466.  
Hubbard, Dr. S. T., puerperal convulsions during labor, 115.  
Human testimony, value of, 447.  
Humerus, subperiosteal, excision of, 516.  
Hunter, Dr. Alex. S., treatment of stricture of urethra, 377.  
Hunter's Point nuisance, 72.  
Hurd, Dr. E. P., puerperal convulsions, 206.  
Hutchison, Dr. Joseph C., lectures on club-foot, 421, 441, 464, 482, 501; notice of work by, 414.  
Hydrocephalic fœtus and delayed labor, 23.  
Hydrophobia, effect of faradization in a case of, 220; in England, 187; and sexual excitement, 20; treatment of, 60.  
Hygiene, report of committee of County Society on, 457.  
Hydro-pericardium, new diagnosis for, 437.  
Hypnotic, monobromide of camphor as a, 369.  
Hypodermic syringe, Parker's new, 359.  
Hysteria and cerebral tumor, 40; treatment of, 440.  
Hystero-epilepsy, 411, 452.
- I.
- Illinois Medical Recorder*, notice of, 60.  
Impregnation without penetration, 427.  
Index rerum, a new kind of, 180, 338.  
Infantile diarrhœa, 4.  
Infants, care of, during warm weather, 72, 79.  
Infectious diseases and lower fungi, 317.  
Inflammation, pathology of, 69.  
Innominate artery, cure of aneurism of, 368.  
Insane, supervision of nurses of the, 393.  
Insanity, absence of palpable lesions in, 38.  
Insomnia, causes and cure of, 429, 431.  
Intestines, discharge of, per anum, 108.  
Internal quarantine for yellow fever, 238.  
Interpleural pathological processes, 24.  
Intestinal obstruction, surgical treatment of, 47.  
Intra-capsular fracture, attitude in, 426.  
Intra-pleural sarcoma, 136.  
Intra-ocular circulation, 38.  
Introductory lectures of medical colleges, 270.  
Intussusception, case of, 6.  
Iodine, local administration of, in syphilis, 97.  
Iodoform in palpitation, 398; uses of, 310.  
Iris, cyst of the, 353.  
Iron, porphyriized, 512.
- J.
- Jaundice, catarrhal, 328; prolonged, 81.  
Jaborandi, use of, in Bellevue Hospital, 367.  
Jews in Hungary, 440.  
Johns Hopkins, preliminary medical course at, 151.  
Joints, senile changes in, 512.  
Jones, Dr. S. Seabury, tracheotomy in syphilitic disease of the larynx, 385.  
Journal prescribing, 152.  
Jugular, internal, excision of, in operation, 385.  
"Jumping" Frenchmen of Moosehead Lake, 38.
- K.
- Kellogg, Dr. D. S., unusual case of obstetrics, 166.  
Keratitis, chlorate of potash in the treatment of, 300.  
Keyes, Dr. E. L., cancer of rectum, 14; calculi in bladder, rapid lithotripsy, 395; Volkmann's extirpation of rectum, 137.  
Kibbee's fever cot, 96.  
Kidney, abscess of, in child three weeks old, 357; acute disease of, 428; amyloid, degeneration of, 492; diagnosis of, 451.  
Knee-joint, articular osteitis of, 393.  
Knock-knee, correction of, 118; operation for, 451.  
Koroniko plant, the, 330.
- L.
- Labat, Prof., death of, 198.  
Labor, cases in, 176; powerless, 448.  
Lamadrid, Dr. J. J., hypodermic injection of dialyzed iron, 17.  
Lamb, Dr. F. D., easy method of reducing femoral hernia, 138.  
Laparotomy, case of, 6.  
Laryngeal plithisis, 503.  
Larynx, epithelial cancer of, 353; tracheotomy in syphilitic disease of, 385; tumors of the, 396.  
Lead, neutral acetate of, in granular conjunctivitis, 291; poisoning, acute, 158; milk as a prophylactic for, 340; points of interest in cases of, 428; by flour, 20.  
Leale, Dr. C. A., warts for skin-grafting, 188.  
Lee, Dr. Benj., literature of suspension, 194.  
Left-handedness, remarks on, 400.  
Leg, question of amputation of, in compound fracture, 162.  
Legal regulations for the practice of medicine, 70.  
Legs, osteotomy for rachitic deformities of, 184.  
Lente, Dr. F. D., unusual effects of quinine, 388.  
Leucocythæmia, case of, 428; lecture on, 121.  
Liautard, strongylus micrurus in the calf, 395; tumor of choroid plexus in horse, 313.  
Lichen urticatus, 438.  
Limbs, unequal length of, 451.  
Lingual artery, ligation near origin of, in extirpation of tongue, 204, 214, 347, 352.  
Linseed in skin diseases, 246.  
Litholapaxy, notice of work on, 333.  
Lithotomy, fifty-two cases of, 271.  
Lithotripsy by a single operation, 241, 395.  
Little, Dr. J. L., laparotomy, 6.  
Liver, atrophy of, 307; multiple abscesses of, 155.  
Lobar-pneumonia, treatment of, 189.  
Locomotor ataxia, treatment of, 28.  
Logan, Dr. C. A., notice of work by, 95.  
Loomis, Dr. A. L., hydatids of the lungs, 281; local peritonitis of stomach, 155.



Luck, Dr. John F., acute lead-poisoning, 158.  
 Lumbo-colotomy, 497, 509.  
 Lumbo-enterotomy instead of lumbo-colotomy, 497.  
 Lung, hydatids of the, 281.  
 Lymph channels, congenital occlusion of, notice of work on, 114.

## M.

Maceoun, Dr. R. T., U.S.N., yellow fever, 338.  
 Maine Medical Association, 10, 12.  
 Malarial fever, iodine in, 408.  
 Malignant pustule, pathology of, 470.  
 Malpractice suits, 13.  
 Martin, Dr. H. A., how to make erioline bandages, 78.  
 Mason, Dr. E., amputation in compound fracture of leg, 162; on ligation of lingual artery, 215.  
 Mastoid process, trephining of, 225.  
 Mattison, Dr. J. B., opium habituation, 66.  
 May, Dr. T. J., notice of work by, 231.  
 Mechanical microtome, 315.  
 Medical advertising in Chicago, 295.  
 MEDICAL RECORD, termination of suit against, 159; increase in size of, 514.  
 Medical reform and the *Times*, 474.  
 Medical Society of County of N. Y., 177, 360, 457.  
 Medical Society of State of New York, meeting of, 11, 374.  
 Medical education in France, 112, 116.  
 Medicine, study of in France, 139.  
 Medulla of long bones, changes of, from inflammation, 271.  
 Melanotic epithelioma of eyeball, 498.  
 Membranous tonsillitis, 17.  
 Membranous colitis, 15.  
 Membranous dysmenorrhœa, 6.  
 Meningitis, case of, 404; diseases of middle ear, 415.  
 Menobranthus, demonstration of brain of, 36.  
 Menopause, local diseases of the, 486, 506, 514.  
 Memphis, list of physicians who have died of yellow fever in, 300.  
 Mercier's operation for valvule at neck of bladder, 469.  
 Mercurial salivation, treatment of, 439.  
 Metallo-therapeutics, 452.  
 Metalloscope, 69.  
 Michel, Dr. C., notice of work by, 133.  
 Microscope, the, 287.  
 Midwives, regulation of practice of, 458.  
 Milk, adulteration of, 371; purgative, 120; intra-venous injection of, 344, 397, 443, 466; test for, 433.  
 Miller, Dr. F. H., treatment of acute rheumatism by salicylic acid, 167.  
 Mitchell, Dr. S. Weir, instruments of precision in medicine, 285.  
 Moles, removal of, from face, 426.  
 Morbus coxarius, 156.  
 Mordough, Dr. Ed. F., treatment of epileptic convulsions by veratrum viride, 208.  
 Morgan, Dr. John G., death of, 380.  
 Morphine-poisoning, hypodermics of coffee in, 490.  
 Mosquito bites, remedy for, 427.  
 Mouth-wash, disadvantages of salicylic acid as a, 350.  
 Mudd, Dr. Joseph A., determination of sex in utero, 416.  
 Muir, M. P., notice of work by, 154.  
 Multiple sclerosis, 224.  
 Murmurs in peripheral arteries, 491.  
 Muscles, dislocation of, 172.  
 Muscular power, source of, notice of work on, 112.

## N.

Nævus, treatment of, 274.  
 Nasal cavity, notice of work on diseases of, 133.  
 Naso-pharyngeal catarrh, treatment of, 390; polypus, removal of, by the temporary depression of both upper jaws, 329.

National quarantine reports, 79, 100, 119, 139, 152, 159, 179, 197, 219, 239, 259, 272, 280, 299, 319, 331, 338, 359, 372, 375, 376, 379, 399, 418, 435, 479.  
 Neck, extirpation of large fibro-cellular tumor of, 385.  
 Necrotic bones, microscopic anatomy of, 217.  
 Neet, Dr. John D., atrophy of liver and perihepatitis, 307.  
 Neftel, Dr. W. B., determination of sex in utero, 375; dyspepsia, 244; germ theory of disease, 398.  
 Nephritis, acute parenchymatous, of pregnancy, 296.  
 Nerve, a new, 368; -stretching, for sciatica, 451.  
 Nervous diseases, notice of work on, 93; in Vienna, 18.  
 New Orleans, drainage of, 431.  
 New York Academy Medicine reports, 74, 96, 115, 175, 253, 254, 331, 357, 419, 511; obstetric section of, 115, 357; section on practice of, 254.  
 New York Dispensary, notice of, 19.  
 New York Free Dispensary for Sick Children, 79.  
 New York Neurological Society, 53, 414.  
 New York Pathological Society, 13, 134, 151, 213, 313, 352, 393, 435, 475, 497, 516.  
 N. Y. Society for the Relief of Widows and Orphans of Medical Men, 460.  
 New York State Woman's Hospital reports, 46.  
 Neuralgia, treatment of, 391, 438.  
 Neuralgic tumor of skin, 315.  
 Nitre paper fumigation as an expectorant, 69.  
 Nitrite of amyl as an antidote to chloroform-poisoning, 43.  
 Norcum, Dr. W. A. B., notice of address by, 296.  
 North, Dr. Alfred, perityphlitic abscess, 267.  
 North-Eastern Dispensary, notice of, 19.  
 Nose-bleed, ligation of thigh in, 300.  
 Noyes, Dr. H. D., blepharoplasty, 498; melanotic epithelioma of eyeball, 498.  
 Nursing, notice of work on, 457.

## O.

Obesity, remedy for, 420, 440.  
 Obstetrical Society, Phila., 314.  
 Obstetric section New York Academy of Medicine, report of, 123.  
 Obstetrics, interesting and unusual case of, 166; troublesome case of, 436.  
 Ocular therapeutics, use of eserine, atropine and duboisine in, 410.  
 Oesophagotomy, case of, 430.  
 Oesophagus, expulsion of body from, by apomorphia, 439.  
 Ogston's operation, 451.  
 Oldest man in Europe, death of, 300.  
 Ovary body in man, 35.  
 Operative surgery, notice of work on, 93.  
 Ophthalmology, handbook of, notice of, 133.  
 Opium, administration of, to children, 120; green tea as antidote for, 60; habituation, clinical notes on, 66; in parturition, 18.  
 Osteo-sarcoma of knee-joint, 155.  
 Osteotomy, chisel for, 337.  
 Otis, Dr. F. N., class-room lessons in syphilis, 85, 127, 146, 162, 183; cure of stricture, 475; notice of work by, 333.  
 Ovarian cyst, case of, 396.  
 Ovarian tumors, electrolysis treatment of, 109.  
 Ovaries, cancer of, and peritonæum, 169; dermoid tumors of the, 296.  
 Ovariectomy, case of, 419; and wound of bladder, 190.  
 Oxalic acid as a disinfectant, 384.  
 Oxalate of cerium in chronic cough, 520.

## P

Palato-glossi muscles, separate investment of, 41.  
 Pallen, Dr. M. A., hypodermics of coffee in morphine-poisoning, 490.  
 Palmar arch, treatment for wounds of, 340.  
 Palpitation, treatment of, 398; and exophthalmic goitre, 270.

- Paralysis, prophylaxis of, 381.  
 Paralysis agitans, changes in urine in, 171.  
 Parsons Dr. Stoyell C., coto bark in diarrhoea of children, 288.  
 Partridge, Dr. E. L., cumulative action of digitalis, 138.  
 Parturition, opium in, 18.  
 Psoas muscle, attitude and expression in, inflammation of, 425.  
 Patella, treatment of transverse fracture of the, 80.  
 Pathological laboratory, 160.  
 Pathological Society, Phila., 315, 396.  
 Pay patients and hospitals, 513.  
 Penbody, Dr., cancer of rectum, 352.  
 Pelvic exudations, removal of, 438.  
 Penis, epithelioma of, 154.  
 Pennsylvania State Hospital for Insane, the new, 520.  
 Pepper, Dr. W., sciatica, post-pharyngeal abscess, 101.  
 Precision in medicine, instruments for, 285.  
 Pericardium and thorax, paracentesis of, 45.  
 Perineum, rupture of, without implication of vulva, 273.  
 Peripheral paralysis, cases of, 449.  
 Peritonitis caused by injections of tepid water, 254; idiopathic, 390; local, of stomach, 155; localized, 81.  
 Perityphlitic abscess, two cases of, 267.  
 Pertussis, treatment of, 80, 337.  
 Peters, Dr. J. C., hair-pin in female bladder, 357; regulation of practice of medicine, 30, 49, 70, 458; origin and conveyance of yellow fever, 238.  
 Phalanges, resection of articular extremities of, 516.  
 Pharyngitis, chronic, treatment of, 330.  
 Philadelphia County Medical Society, reports of, 316, 396.  
 Philadelphia Pathological Society, reports of, 477.  
 Phlegmasia dolens, simulated by abscess of groin after confinement, 290.  
 Phthisis, contagiousness of, 312; etherized cod-liver oil in, 150; laryngeal, 503; lecture on, 221, 461, 481; transfusion of milk in, 443, 466; treated by silphium, 198.  
 P hymosis treated by elastic ligature, 339.  
 Physics of infectious diseases, notice of work on, 95.  
 Piffard, Dr. H. G., on acne, 161; local treatment of eczema, 321.  
 Pigmentary syphiloderma, 234.  
 Pileher, Dr. Lewis S., on fracture at the wrist-joint, 74.  
 Piles, treatment of, 231.  
 Pilocarpine in eclampsia, 471; as an oxytocic, 176, 492.  
 Plaster-Paris bandages, instruments for, 479.  
 Plastic apparatus in fracture, 54.  
 Pleurisy in children, 227; interesting case of, 188.  
 Pleuro-pneumonia, case of, 327; creaking sound in, 313.  
 Pneumogastric nerve, excision of, in operation, 385.  
 Pneumonia, acute, demand for potential medication in, 429.  
 Pneumonic phthisis, 463.  
 Pneumothorax in a new-born child, 200.  
 Poisoning from the new use of Paris green on potatoes, 194.  
 Polyuria, ergot in, 438.  
 Polk, Dr. W. M., intra-pleural sarcoma, 136.  
 Pomeroy, Dr. G. P. H., emphysema from injury to thorax, 325.  
 Pons Varolii, lesions of, 102.  
 Poore, Dr. Charles T., osteotomy for the correction of rachitic deformity of the legs, 184; chisel for, 337.  
 Porcher, Dr. F. Peyre, paracentesis of pericardium and thorax, 45.  
 Poro-plastic felt jacket, 309.  
 Post, Dr. A. C., axillary vein, wound of, 154; cheloid tumors of ear, 216; epithelioma of penis, 154; ligation of lingual artery, 214; resection of articular extremities of phalanges, 516.  
 Post, Dr. Geo. E., removal of fibro-cellular tumor of neck, etc., 385; trephining of mastoid process, 325.  
 Post-partum hemorrhage, case of, 436; prevention of, 358; hand as a curette in, 277.  
 Post-pharyngeal abscess, lecture on, 105.  
 Pott's disease of spine, attitude and expression in, 425; Reid's plaster treatment of, 100; its pathology and treatment, 177.  
 Practice of medicines, legal regulations for the practice of, 30, 49.  
 Pregnancy, vomiting in, 39; rectal alimentation in the nausea of, 298.  
 Presbyterian Hospital, Philadelphia, reports of, 68.  
 Presbyterian Hospital (N. Y.) reports, 27, 88, 509.  
 Prescription, a fatal, 440.  
 Priapism cured by leeches, 99.  
 Professional secrets and professional obligations, 312, 318.  
 Propylamine in chorea, 431.  
 Pseudo-membranous laryngitis, 316.  
 Psoriasis, treatment of, 119, 391.  
 Public Health Association, 432, 434; reports, notice of volume of, 32.  
 Pudendal hematocoele, 409.  
 Puerperal convulsions, treatment of, 206; during labor, 115; treatment of, 257, 438.  
 Puerperal fever, treatment of, 219.  
 Puerperal poisoning, causes of, 200.  
 Pulse watch, 286.  
 Pulsilagon, the, 286.  
 Purse, Dr. Benj. S., yellow fever, 337.  
 Pustule, malignant, pathology of disease resembling, 470.  
 Putnam-Jacobi, Dr. M., membranous colitis, 15.  
 Pyothorax, cases of, 406.
- ### Q.
- Quackery and the clergy, 92.  
 Quarantine, regulation of, 435.  
 Quinia, substitute for, 437.  
 Quinine, consumption of, in the Russian army, 471; new adulteration of, 140; tetanus from hypodermic injection of, 480; unusual effects of, 388.
- ### R.
- Radins, pathology of fracture of, 310.  
 Ravenberg, Dr. E., infantile diarrhoea, 4.  
 Rectal alimentation, 153, 170, 298.  
 Recto-vulvar fistula, 409.  
 Rectum, cancer of, 314, 352, 355; exploration of, death from, 301; extirpation of cancer of, 14, 21; ulceration and stricture of, 409.  
 Recurrent laryngeal nerve, excision of, in operation, 385.  
 Reid, Dr. John J., plaster treatment of Pott's disease of the spine, 100.  
 Retention of urine, chloral in, 438.  
 Retroflexion of uterus, 46.  
 Retroversion of uterus, 46.  
 Revaccination, 437.  
 Rheumatism, with meningitis, 404; and salicylic acid, 167; treatment of, 200, 500.  
 Richardson, Dr. J. G., germ theory of disease, 362, 416.  
 Robinson, Dr. Beverley, acute miliary tuberculosis, 144; catarrhal phthisis, 221; hypertrophous dilatation of heart, 14; interpleural processes, 24; typhoid fever, 154.  
 Robson, Dr. Benj. R., death of, 160.  
 Rockwell, Dr. A. D., new method of hastening suppuration of cold abscesses, 226; review of work by, 413.  
 Rogers, late Dr. Stephen, 339.  
 Roll of Honor in the yellow fever districts, 213, 240, 260, 279, 300, 320, 360.  
 Roosa, Dr. D. B. St. John, conjunctivitis, 1; sympathetic ophthalmia, 41; notice of work by, 295.  
 Roosevelt Hospital, N. Y., reports, 326.  
 Rokitsansky, Prof. C., death of, 80.  
 Roth, Dr. Charles, vaginismus, 427.  
 Rupture, congenital phimosis as a cause of, 491.  
 Rural hygiene, 51.



## S.

- Sander, Dr. F., death of, 198.  
 Sands, Dr. H. B., on ligation of lingual artery, 214;  
 thyroid gland, congenital cystic tumor, removal of,  
 215.  
 Sanford, Dr. Geo. E., chloramyl, a new anæsthetic, 279.  
 Sanitary matters, and the general government, 471.  
 Santonin, adulteration of, 307.  
 Salicylic acid, disadvantages of, as a mouth-wash, 350;  
 taste of, 438.  
 Salt water in the injection of suppurating cavities, 391.  
 Sarcomatous tumor of calf of leg, 135.  
 Satterthwaite, Dr. T. E., hematoma of broad ligament,  
 435.  
 Sayre, Dr. L. A., Pott's disease, 178.  
 Scalp removed by machinery, 313.  
 Scarlet fever, contagion of, 308; incubative period of,  
 370; latent, 490.  
 Scarlatinal sore throat, treatment of, 140.  
 Scarpa's shoe, 466.  
 School hygiene, 32, 493.  
 Schweig, Dr. G. M., treatment of dyspepsia, 17.  
 Schweigger, Prof. C., notice of work by, 133.  
 Sciatica, clinical lecture on, 104; and nerve-stretching,  
 250, 450; treated by subcutaneous injections of  
 nitrate of silver, 410.  
 Scirrhus of mamma, treatment of, by electrolysis, 28.  
 Scleroderma, case of, 235.  
 Sclerosis of posterior columns of spinal cord, 53.  
 Sea-sickness, collodion as a preventive of, 110; treat-  
 ment of, 410.  
 Seguin, Dr. E. C., cerebral and spinal localizations, 101,  
 141, 301, 361.  
 Selden, Dr. O. G., large dose of strychnine, 87.  
 Sex in utero, determination of, 352, 375, 415, 417,  
 459.  
 Sexton, Dr. Samuel, accumulations in external ear, 124.  
 Shaffer, Dr. Newton M., Pott's disease, 177; treatment  
 of club-foot, 401.  
 Shaw, Dr. J. C., sclerosis of cord, 53.  
 Shiland, Dr. A., a ring-folding speculum, 99.  
 Shock, prevention of, 511.  
 Shoe, Shaffer's, for club-foot, 402.  
 Shot during a performance, 233.  
 Shradly, Dr. Geo. F., amputation of thigh for articular  
 osteitis, 393; editorial articles by, 10, 32, 51, 71, 91,  
 92, 111, 131, 174, 191, 192, 213, 233, 251, 252, 272,  
 294, 331, 332, 351, 372, 392, 393, 413, 432, 431,  
 472, 513; ligation of lingual artery near its origin,  
 as a preliminary procedure in extirpation of cancer  
 of tongue, 204, 214.  
 Sewer-gas and abscess of cervical glands, 433.  
 Sewerage, damages for imperfect, 437.  
 "Silver-fork" fracture, pathology of, 74.  
 Sims, Dr. J. Marion, and operations in Vienna, 376.  
 Skin-grafting, warts in, 188; re-union of detached, 369.  
 Sleeplessness, causes and cure of, 431.  
 Small-pox, carbolic acid in, 437; epidemic in London,  
 80.  
 Smith, Dr. J. Lewis, creaking sound in pleuro-pneu-  
 monia, 313.  
 Snelling, Dr. F. G., death of, 499.  
 Society discipline and medical certificates, 413.  
 Society proceedings, exclusive publication of, 451.  
 Sore nipples, remarks on, 175, 253.  
 Spaying for fibroid tumor of womb, 368.  
 Specialists, American vs. European, 519.  
 Speculum, a ring-folding, 99.  
 Spinal abscess, treatment of, 349.  
 Spinal and cerebral diseases, localization of, 101, 141,  
 301.  
 Spinal cord, nomenclature of inflammatory affections of,  
 36; probable hemorrhage into cervical enlargement  
 of, 35; red softening of cervical enlargement of,  
 35; syphilitic disease of, 37.  
 Spinal paralysis, four cases of, in adults, 130; lateral,  
 323.  
 Spine, fracture of, in utero, 275.  
 Spiritual medicine, 180.  
 Spleen, enlarged, in child one year and nine months old,  
 269; first excision of, 171.  
 St. Francis' Hospital reports, 768.  
 St. John, Dr. S. B., plastic apparatus in the treatment  
 of fractures, 51.  
 St. Petersburg, fever in, 100.  
 St. Thomas's Hospital, London, report from, 490.  
 State examinations for the degree of M. D., 291.  
 Stethoscope, the, 287.  
 Strawberry fungus, a new, 100.  
 Stimson, Dr. L. A., cancer of rectum, 314; notice of  
 work by, 93; sarcoma of calf of leg, 135; sarcoma-  
 tous tumor of bladder, 395.  
 Stilbene, a preparation for cleansing instruments, 120.  
 Stomach, cancer of, 123; localized fibrinous induration  
 of, 313; treatment of ulcer of, 300.  
 Stricture, relation of, to gleet, 261; urethral summary of  
 views as to treatment, 291.  
 Strongylus micrurus in the calf, 395.  
 Strychnia, large dose of, 87.  
 Subcutaneous injection of ether, 437.  
 Sugar, adulteration of, 433, 473.  
 Suicide, prevention of, 420.  
 Summer diarrhœa of infants, 4.  
 Sunstroke with a temperature of 113° F., 437.  
 Superfetation, 500.  
 Surgeon-General, report of the, 332.  
 Surgical diseases, attitude and expression in, 424.  
 Surgical Section, New York Academy of Medicine, 54.  
 Suspension, literature of, 193.  
 Sussdorff, Dr. G. E., local diseases of the menopause,  
 486, 506.  
 Swinburne, Dr. John, excision of astragalus, 389.  
 Sympathetic ophthalmia, 41.  
 Syphilis, class-room lessons in, 85, 127, 146; contagion  
 of, 127; eradication of, 12; hereditary transmission  
 of, 146; lectures on, 163, 183; local administration  
 of iodine in, 97; treatment without mercury, 309;  
 in young child, 254.  
 Syphilitic infection, progress of, 149.  
 Syphiloderm, ulcerative, 237.

## T.

- Talipes, treatment of, 401, 421, 441, 464, 465, 482.  
 Tapeworms, geographical distribution of, in Sweden,  
 120; treatment of, 209.  
 Tania, treatment of, 209, 486.  
 Temperatures, morbid, local, 8.  
 Tendons, dislocation of, 172.  
 Tenotomy, rules for the operation of, 421.  
 Tetanus from hypodermic injection of quinine, 480;  
 treated with calabar bean, 7.  
 Thermometer, the clinical, 159, 286.  
 Thigh, dislocation of, attitude and expression in, 426;  
 subcutaneous division of neck of, 170.  
 Thomson, Dr. W. H., chronic alcoholism, 181; prophylaxis  
 of hemiplegia, 381; anniversary address by, 515.  
 Thomas, Dr. T. G., treatment of high temperature after  
 ovariectomy, 96; uterine fibroids, 341.  
 Thymol as a dressing for wounds, 420.  
 Thyroid gland, congenital cystic tumor of, 215.  
 Tibia, treatment of ununited fracture of, 520.  
 Tic-douloureux, subcutaneous injections of chloroform  
 on, 450.  
 Tidy, C. M., notice of work by, 414.  
 Tinnitus aurium, 190.  
 Toe, rapid recovery from complete luxation of, 308.  
 Tongue, extirpation of cancer of, after tying lingual  
 arteries, 347; removal of cancer of, 204, 347.  
 Toothache, neuralgic, 340, 420.  
 Tracheotomy in cancer of larynx, 353; in syphilitic  
 disease of larynx, 385.  
 Transactions of Georgia Medical Association, notice of,  
 73.

- Transactions of Indiana State Medical Society, notice of, 95.  
 Transactions of Medical Society State of New York, notice of, 72.  
 Transactions of Ohio Medical Society, notice of, 73.  
 Transactions of Oregon Medical Society, 94.  
 Transfusion of blood and intravenous injection of milk, 344; of milk versus blood, 413.  
 Trichina in fish, 460.  
 Trichinosis, treatment of, 225.  
 Tricophyton tonsurans, botanical relations of, 237.  
 Tricuspid and mitral regurgitation, 135.  
 Trachea, Dr. C. W., treatment of knock-knee, 118.  
 Tubercle, diagnosis of, 144.  
 Tuberculosis, miliary, mode of dissemination of, 29; miliary, temperature in, 109.  
 Tumors treated by electricity, 263.  
 Turnipseed, Dr. E. B., yellow fever, 304.  
 Tympanic resonance conveyed by a solid organ, 122.  
 Typho-malarial fever, the heart in, 83.  
 Typhoid fever, death second week of, 154; etiology of, 12; renal form of, 310; treatment of, 366.
- U.
- Uleers, treatment of, 500.  
 Unmarried mothers, 439.  
 Upjohn, Dr. H. U., sex in utero, 459.  
 Urea, intra-venous injection of, 110.  
 Ureters, hypertrophy of muscles of the, 470.  
 Urethra, diseases of, 107; rapid dilatation of, 290; rupture of, from kick, 356; stricture of, 135; stricture of, notice of work on, 333; stricture, treatment of, 377.  
 Urethral hemorrhage, apparatus for arresting, 98; stricture, cure of, 475; summary as to treatment of, 291.  
 Uric acid gravel, treatment of, 198.  
 Urinary casts, origin of, 109.  
 Urine, extravasation of, behind an old stricture, 108; in paralysis agitata, 171; retention of, relieved by chloral, 450.  
 Uterine fibroids, lecture on, 341; spaying for, 368; pessary, 78; support, a new, 20; tent, a new, 398.  
 Uterus, alternating anterior and posterior version of, 297; bilateral laceration of os of, 170; fibroid tumors of, treated by sclerotic acid, 60; rapid dilatation of, cervical canal of, 64; retroflexion of, 46.
- V.
- Vaginismus, case of, 427.  
 Valgus, congenital treatment of, 502
- Van Buren, Dr. W. H., extirpation of rectum 21; lithotomy, 244.  
 Vanderpoel, Dr. S. Oakley, prevention of yellow fever, 478.  
 Varicose ulcers, chronic, 438.  
 Venous pulsation, 470.  
 Ventricular hemorrhage and apoplectic neuro-retinitis, 13.  
 Vertigo, gastric, 90.  
 Vesical calculus, cases of, 498; in females, 230.  
 Vesico-vaginal fistula and the necessity of early delivery, 275.  
 Visions, notice of work on, 456.  
 Virginia, Medical Society of, 360.  
 Volkmann's method of extirpation of rectum, 14, 157.  
 Vomiting of pregnancy, 438.  
 Vulvar pruritus, 358.
- W.
- Wakenau, Dr. H., death of, 180.  
 Warts, for skin-grafting, 188.  
 Watson, Dr. B. A., discotome, 78.  
 Weir, Dr. R. F., vesical calculi, 498.  
 Well water, contamination of, 518.  
 West, Dr. F. E., congenital malformation of hips, 278.  
 Wey, Dr. William C., hay fever and paralysis of diaphragm, 289.  
 White, Dr. F. V., sore nipples, 175.  
 Whooping-cough, treatment of, 80, 119, 486; ulceration of frænum in, 500.  
 Wine, use of, in capillary bronchitis, 289.  
 Witchcraft, scientific aspect of, 447.  
 Wood, Dr. H. C., tumor of brain and multiple sclerosis, 223.  
 Wood's (Jacob A.) cannula, modified by P. A. Harris, 159.  
 Worthington, Dr. Henry, heart in typho-malarial fever, 83.  
 Wrist-joint, fracture at the, 74.
- Y.
- Yellow fever, causes, characteristics, prevention and treatment of, 109, 119, 159, 160, 173, 179, 195, 197, 211, 219, 232, 304, 319, 335, 337, 376, 420, 494.  
 Yellow Fever Commission, 252, 273, 280, 312, 392, 431.  
 Yellow Fever in Memphis, 500.  
 Yellow Fever Relief Fund, 294, 412, 439, 500, 514, 519.  
 Yorkville Medical Association, annual meetings of, 406.
- Z.
- Zaufal's trichter or specula, 59.















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